

Non-Orthogonal Reduction for Rendering Fluorescent Materials in Non-Spectral Engines

Supplemental Material

Alban Fichet*
Intel Corporation

Laurent Belcour*
Intel Corporation

Pascal Barla
Inria

Content

Statistics of ΔE_{2000}^*	10
Alphabetical order	
CIBA11	37
CIBA12	31
CIPLAW10	56
CIPLAW8	67
CIPLAW9	63
GOLF	58
GOLFORA	38
GOLFYE	20
HERPIBLU	68
HERPICER	16
HERPICHA	24
HERPIGRE	35
HERPIMAG	22
HERPIORA	15
HERPIORE	14
HERPIOYE	13
HERPIPIN	17
HERPIRED	18
INCWHITE	123
IXAXOR2	12
IXCATAN	32

*These authors contributed equally to this work

IXCAXORA	11
IXCAXPGR	74
IXCAXPMA	65
IXCAXPRE	21
IXCBBLUE	75
IXCCLBL	73
IXCCLGE	33
IXCCLYE	23
IXCELLIM	51
IXCMMINT	66
IXCPUPI	71
IXCRHMAG	62
IXCRHTP	29
IXCRINFR	87
IXCRLALE	26
IXCROORA	53
IXCRUMY	39
IXCSHPIN	43
IXCSSTHL	28
IXCSWH2	111
LITWFWH	79
MCMODRED	106
MSCHIP1	101
P3MP1C	152
P3MP1K	107
P3MP1M	116
P3MP1Y	128
P3MP1YB	141
P3MP5C	137
P3MP5K	133
P3MP5M	143
P3MP5Y	129
P3MPWH	151
PAPGRE	55
PAPMAG	48
PAPORAN	50

PAPRED	47
PAPYEL	52
PEP1C	110
PEP1K	145
PEP1M	119
PEP1Y	139
PEPWH	36
PFUJI1C	104
PFUJI1K	146
PFUJI1M	105
PFUJI1Y	118
PFUJI5C	70
PFUJI5K	100
PFUJI5M	80
PFUJI5Y	82
PFUJIWH	57
PHP8HP1C	81
PHP8HP1K	108
PHP8HP1M	98
PHP8HP1Y	103
PHP8HP5C	61
PHP8HP5K	60
PHP8HP5M	49
PHP8HP5Y	44
PHP8HPWH	30
PHP8RV1C	138
PHP8RV1K	150
PHP8RV1M	134
PHP8RV1Y	126
PHP8RV5C	122
PHP8RV5K	90
PHP8RV5M	84
PHP8RV5Y	69
PHP8RVWH	40
PKODXL1C	97
PKODXL1K	144

PKODXL1M	127
PKODXL1Y	142
PKODXL5C	89
PKODXL5K	114
PKODXL5M	88
PKODXL5Y	92
PKODXLWH	77
PLAGREE	136
PLAORAN	59
PLAWH1	140
PLAWH2	148
PLIWF1C	96
PLIWF1K	135
PLIWF1M	95
PLIWF1Y	113
PLIWF4C	94
PLIWF4K	115
PLIWF4M	86
PLIWF4Y	93
PLIWFWH	72
PLTOSF1C	130
PLTOSF1K	124
PLTOSF1M	131
PLTOSF1Y	125
PLTOSF5C	147
PLTOSF5K	132
PLTOSF5M	154
PLTOSF5Y	149
PLTOSFWH	109
POLGREE	54
POLYBLUE	91
POLYORAN	19
POLYPUR	83
POLYRED	64
POLYYELL	27
PXEROC1R	112

PXEROC5R	85
PXEROK1R	153
PXEROK5R	102
PXEROM1R	99
PXEROM5R	78
PXEROWHR	42
PXEROY1R	117
PXEROY5R	76
RM3MGRID	121
RM3MUNI	120
TEXTBLUE	45
TEXTMAGC	41
TEXTMAGU	46
TEXTORAB	34
TEXTYELL	25

Reradiation contribution order

IXCAXORA	11
IXAXOR2	12
HERPIOYE	13
HERPIORE	14
HERPIORA	15
HERPICER	16
HERPIPIN	17
HERPIRED	18
POLYORAN	19
GOLFYE	20
IXCAXPRE	21
HERPIMAG	22
IXCCLYE	23
HERPICHA	24
TEXTYELL	25
IXCRLALE	26
POLYYELL	27
IXCSSTHL	28
IXCRHTP	29
PHP8HPWH	30

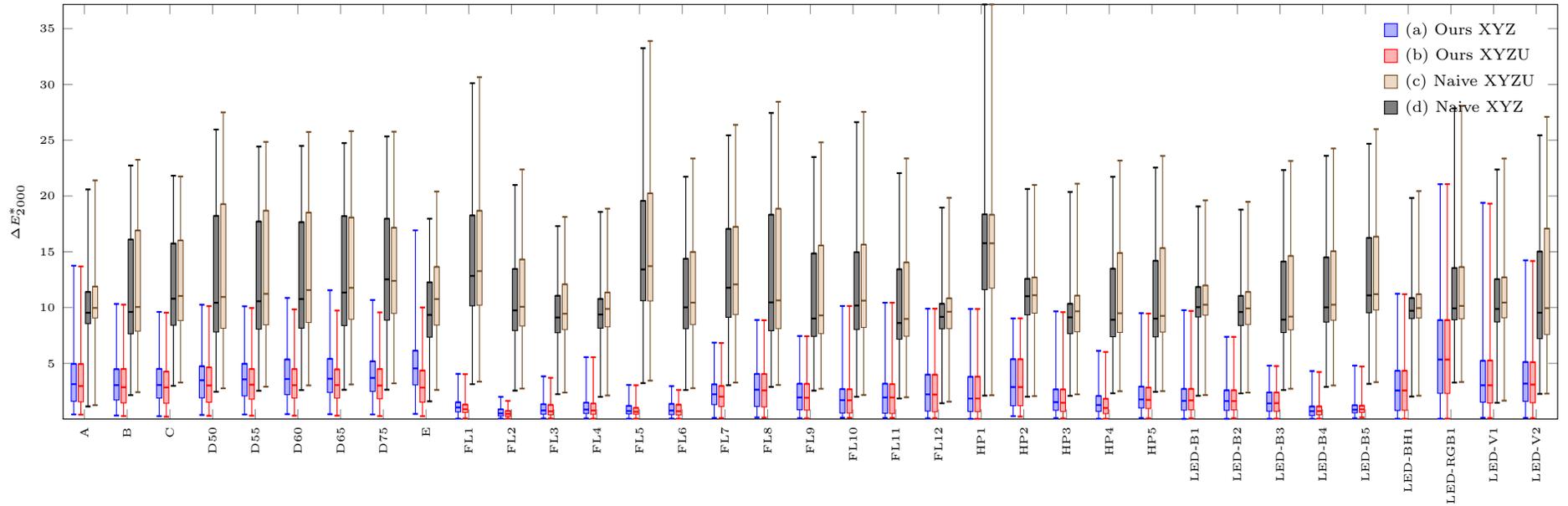
CIBA12	31
IXCATAN	32
IXCCLGE	33
TEXTORAB	34
HERPIGRE	35
PEPWH	36
CIBA11	37
GOLFORA	38
IXCRUMY	39
PHP8RVWH	40
TEXTMAGC	41
PXEROWHR	42
IXCSHPIN	43
PHP8HP5Y	44
TEXTBLUE	45
TEXTMAGU	46
PAPRED	47
PAPMAG	48
PHP8HP5M	49
PAPORAN	50
IXCELLIM	51
PAPYEL	52
IXCROORA	53
POLGREE	54
PAPGRE	55
CIPLAW10	56
PFUJIWH	57
GOLF	58
PLAORAN	59
PHP8HP5K	60
PHP8HP5C	61
IXCRHMAG	62
CIPLAW9	63
POLYRED	64
IXCAXPMA	65
IXCMMINT	66

CIPLAW8	67
HERPIBLU	68
PHP8RV5Y	69
PFUJI5C	70
IXCPUPI	71
PLIWFWH	72
IXCCLBL	73
IXCAXPGR	74
IXCBBLUE	75
PXEROY5R	76
PKODXLWH	77
PXEROM5R	78
LITWFWH	79
PFUJI5M	80
PHP8HP1C	81
PFUJI5Y	82
POLYPUR	83
PHP8RV5M	84
PXEROC5R	85
PLIWF4M	86
IXCRINFR	87
PKODXL5M	88
PKODXL5C	89
PHP8RV5K	90
POLYBLUE	91
PKODXL5Y	92
PLIWF4Y	93
PLIWF4C	94
PLIWF1M	95
PLIWF1C	96
PKODXL1C	97
PHP8HP1M	98
PXEROM1R	99
PFUJI5K	100
MSCHIP1	101
PXEROK5R	102

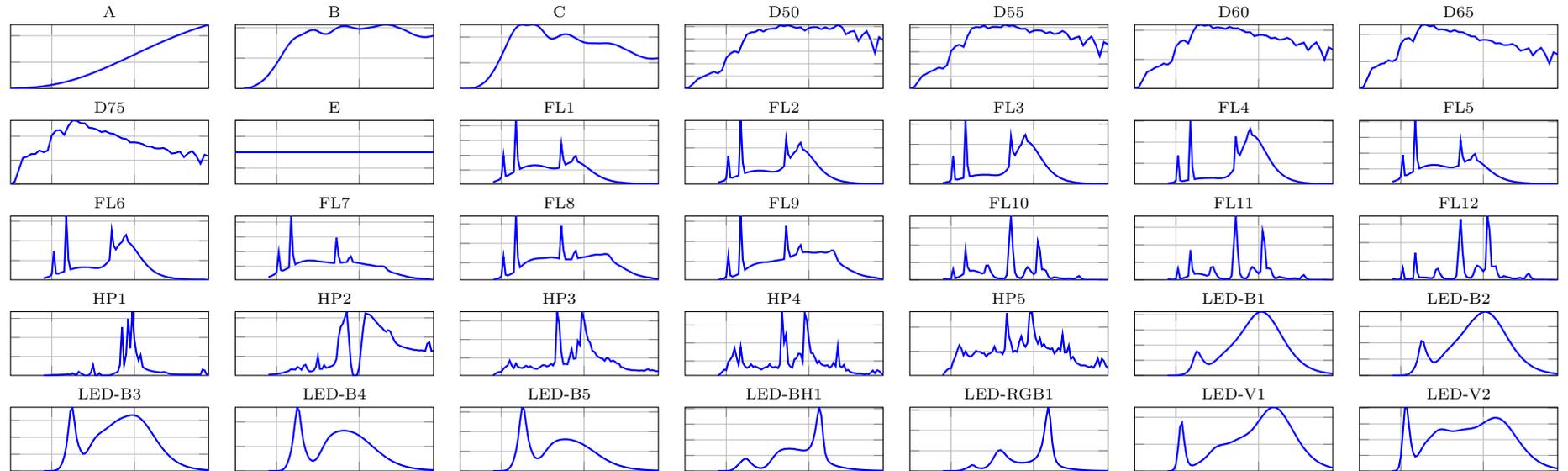
PHP8HP1Y	103
PFUJI1C	104
PFUJI1M	105
MCMODRED	106
P3MP1K	107
PHP8HP1K	108
PLTOSFWH	109
PEP1C	110
IXCSWH2	111
PXEROC1R	112
PLIWF1Y	113
PKODXL5K	114
PLIWF4K	115
P3MP1M	116
PXEROY1R	117
PFUJI1Y	118
PEP1M	119
RM3MUNI	120
RM3MGRID	121
PHP8RV5C	122
INCWHITE	123
PLTOSF1K	124
PLTOSF1Y	125
PHP8RV1Y	126
PKODXL1M	127
P3MP1Y	128
P3MP5Y	129
PLTOSF1C	130
PLTOSF1M	131
PLTOSF5K	132
P3MP5K	133
PHP8RV1M	134
PLIWF1K	135
PLAGREE	136
P3MP5C	137
PHP8RV1C	138

PEP1Y	139
PLAWH1	140
P3MP1YB	141
PKODXL1Y	142
P3MP5M	143
PKODXL1K	144
PEP1K	145
PFUJI1K	146
PLTOSF5C	147
PLAWH2	148
PLTOSF5Y	149
PHP8RV1K	150
P3MPWH	151
P3MP1C	152
PXEROK1R	153
PLTOSF5M	154

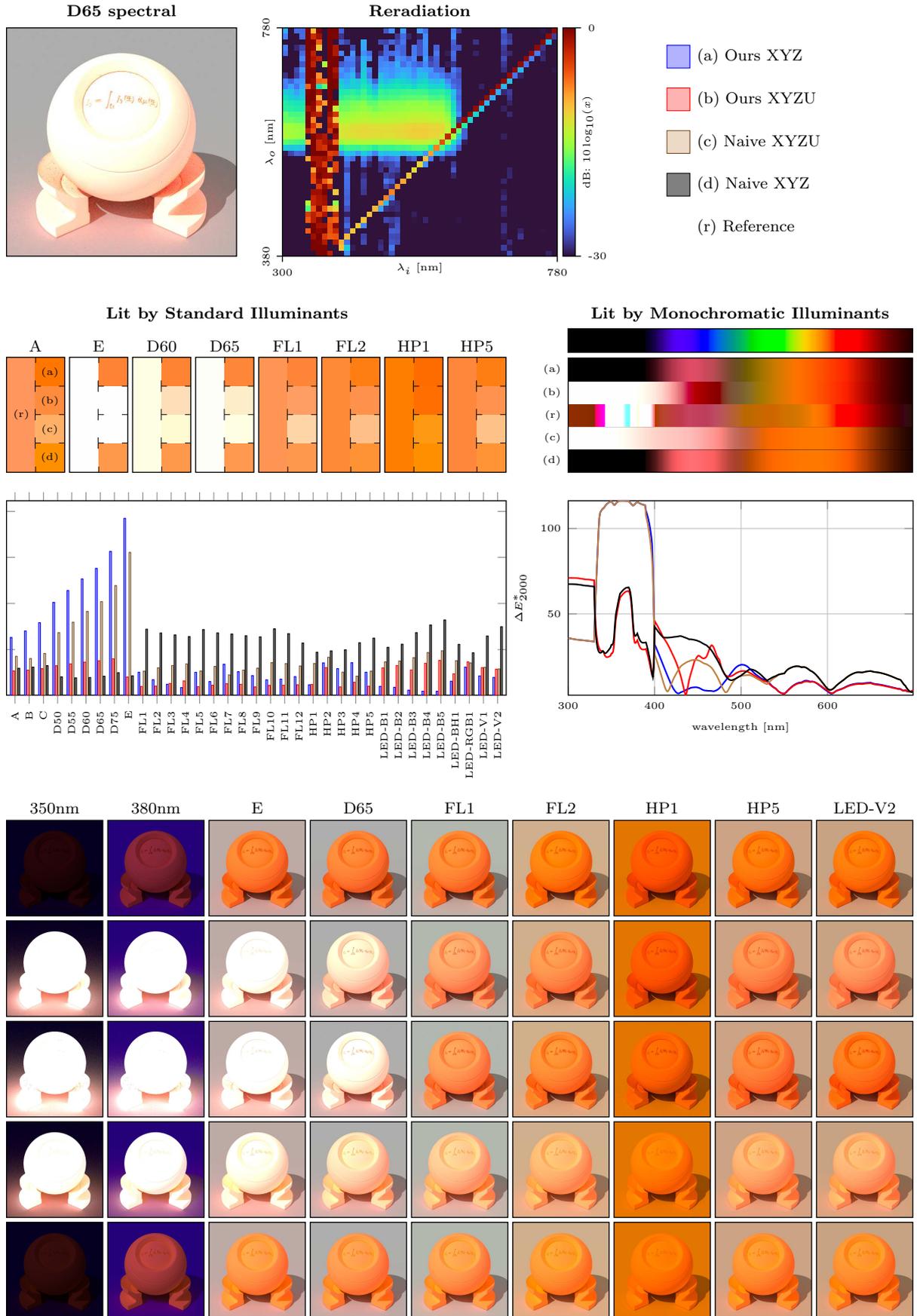
Statistics of ΔE_{2000}^* . The whiskers bottom and top represent resp. the minimum and the maximum, the box bottom and top represent resp. the first and third quartiles and the central line represent the median of the ΔE_{2000}^* distribution. We excluded IXCAXORA due to inconsistencies in the measurement.



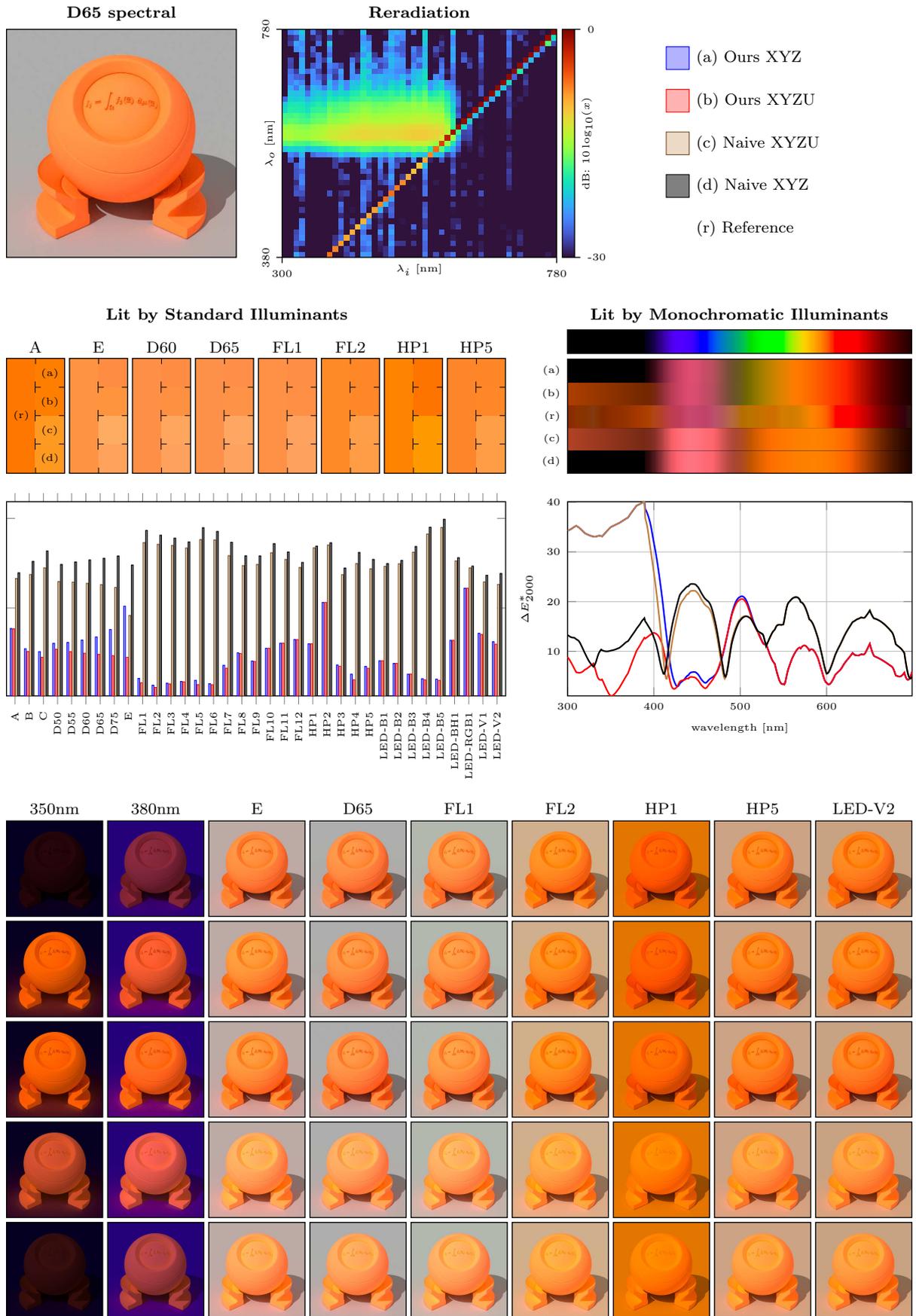
10



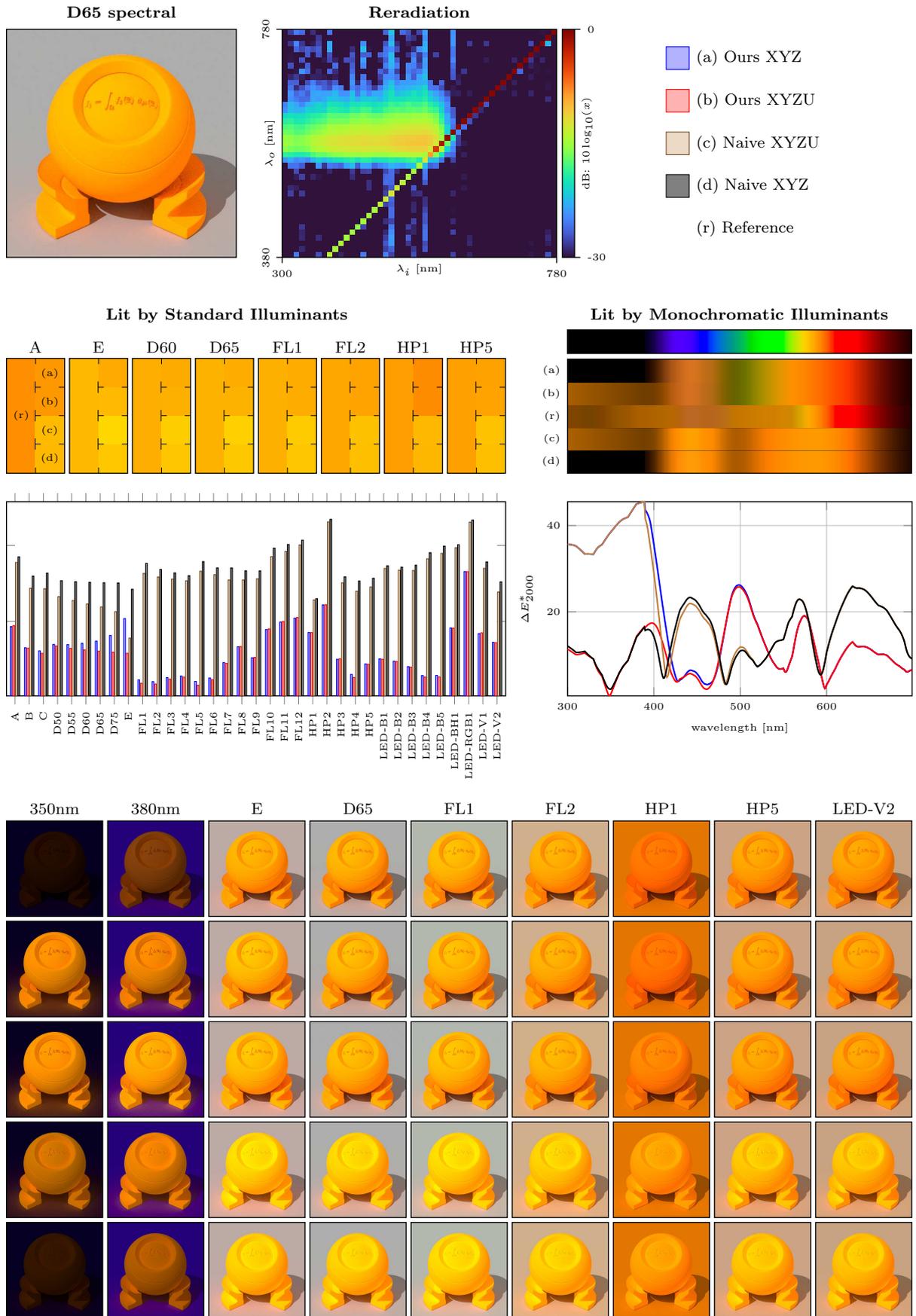
IXCAXORA



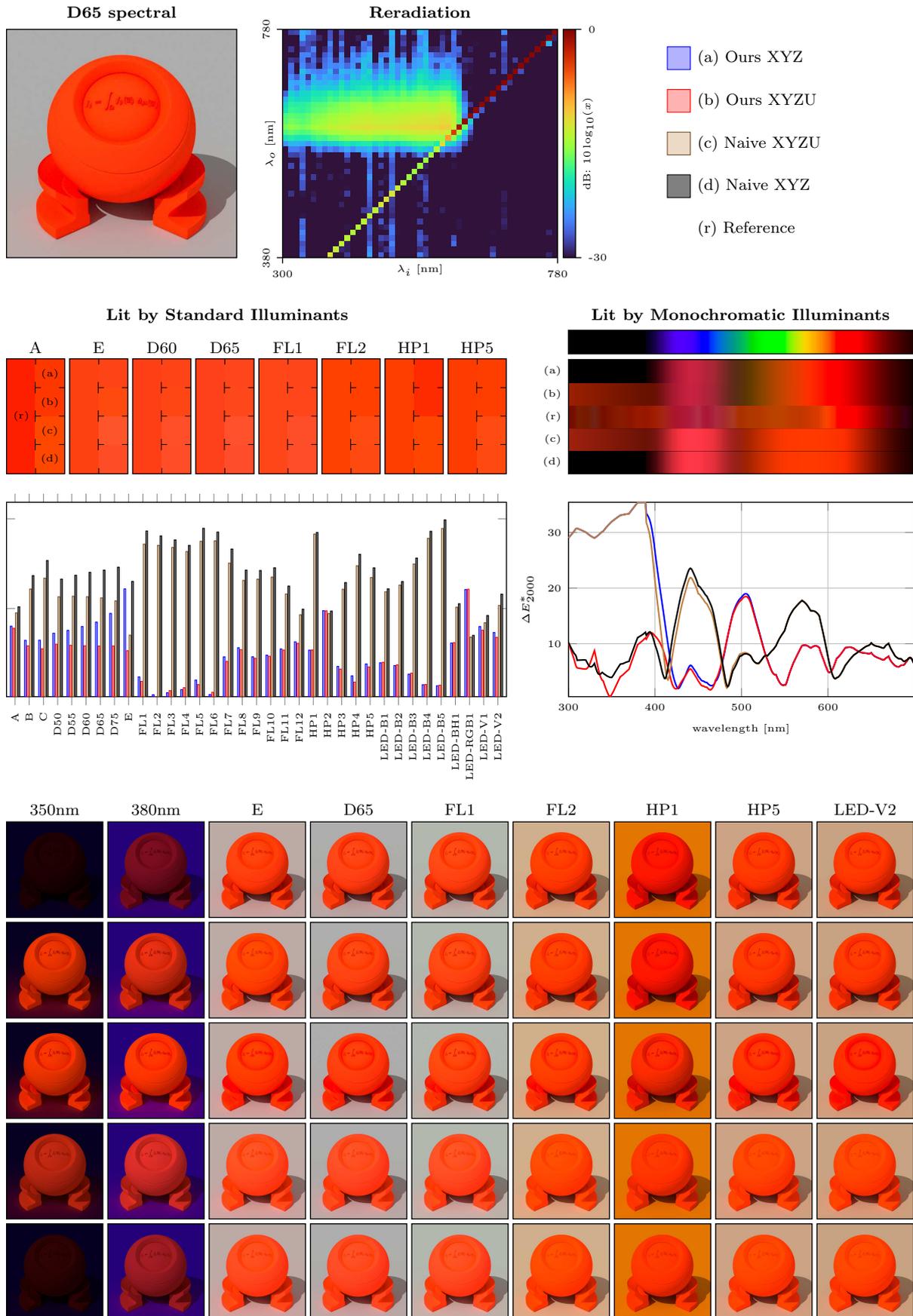
IXAXOR2



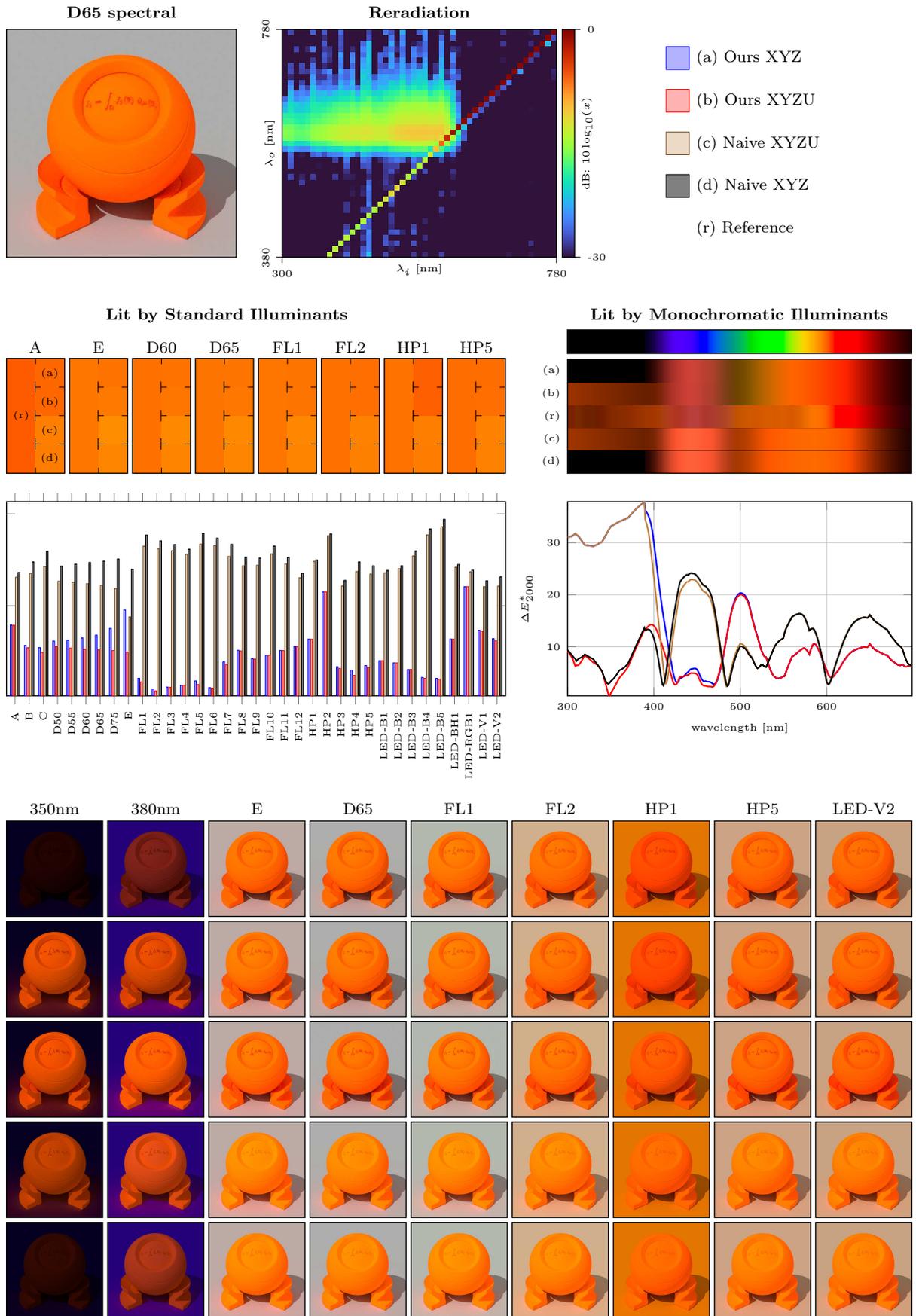
HERPIOYE



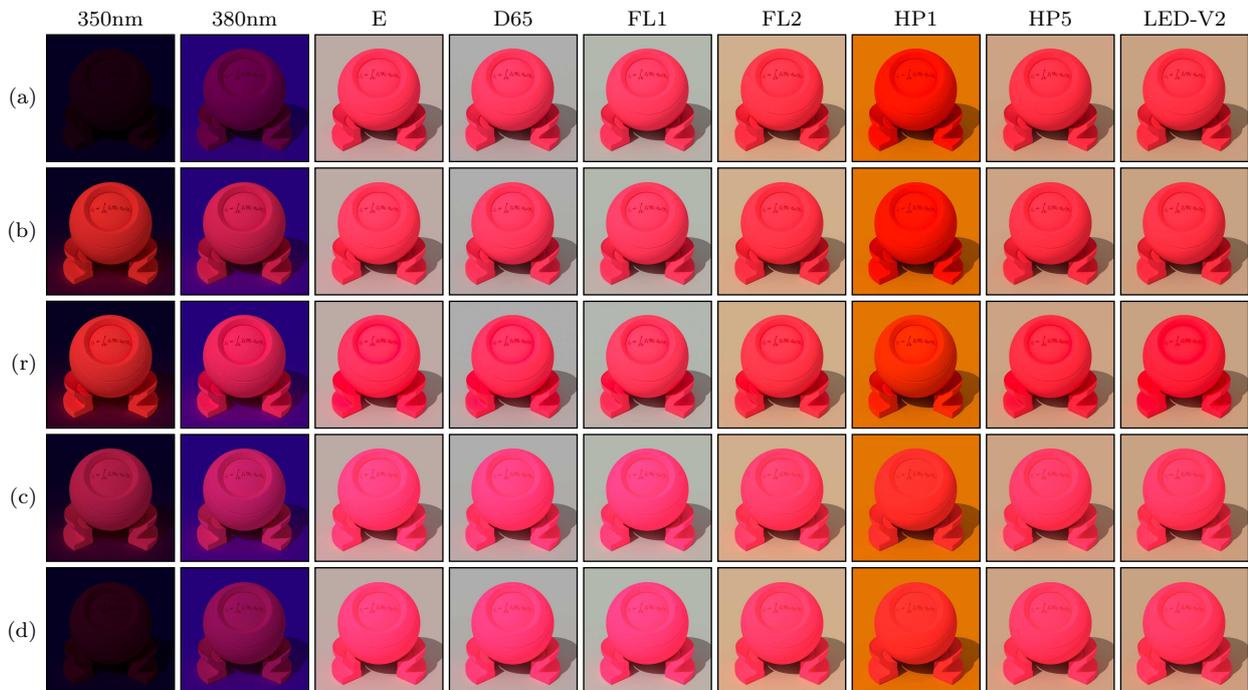
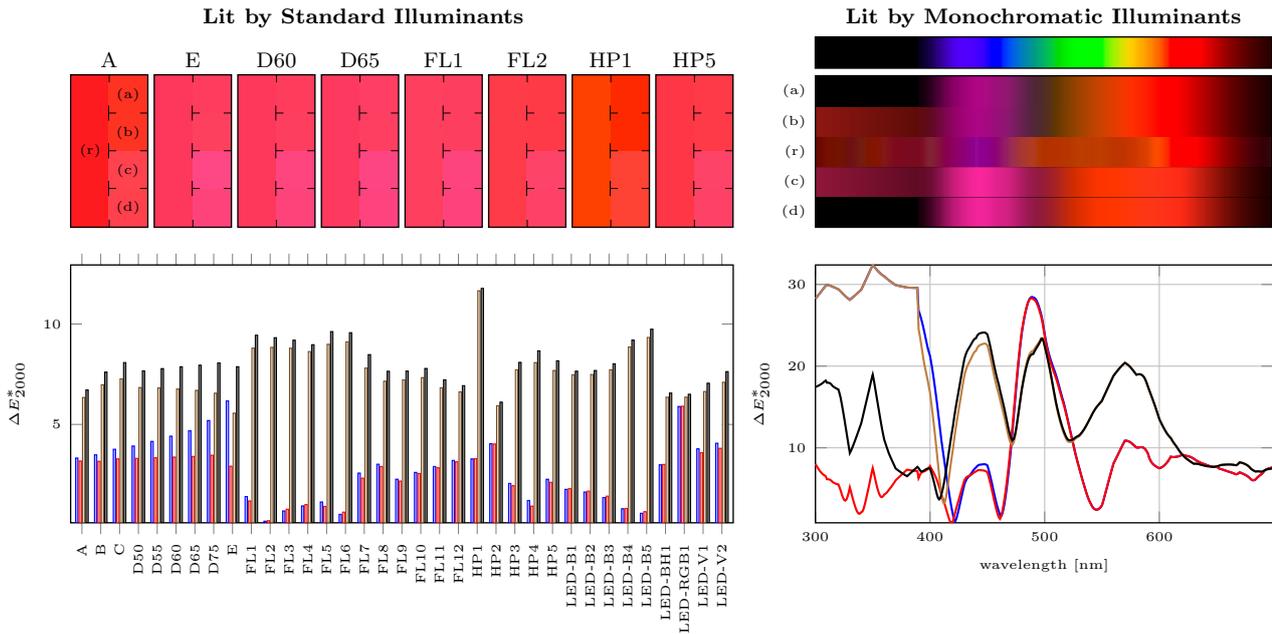
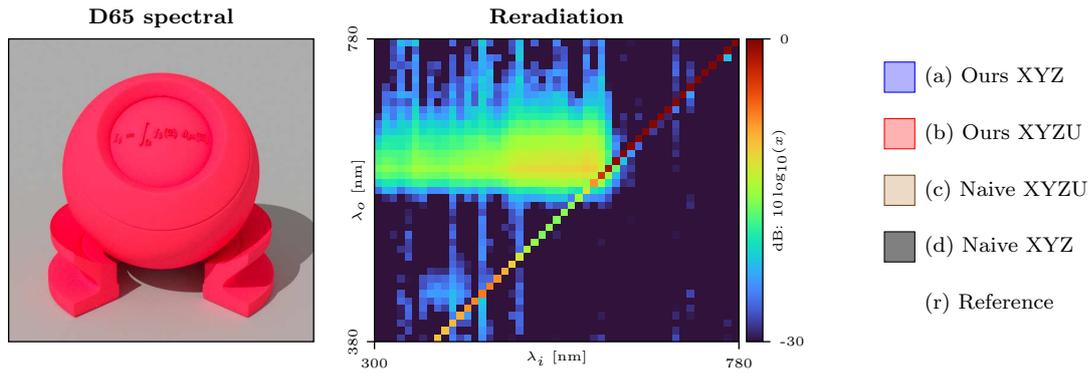
HERPIORE



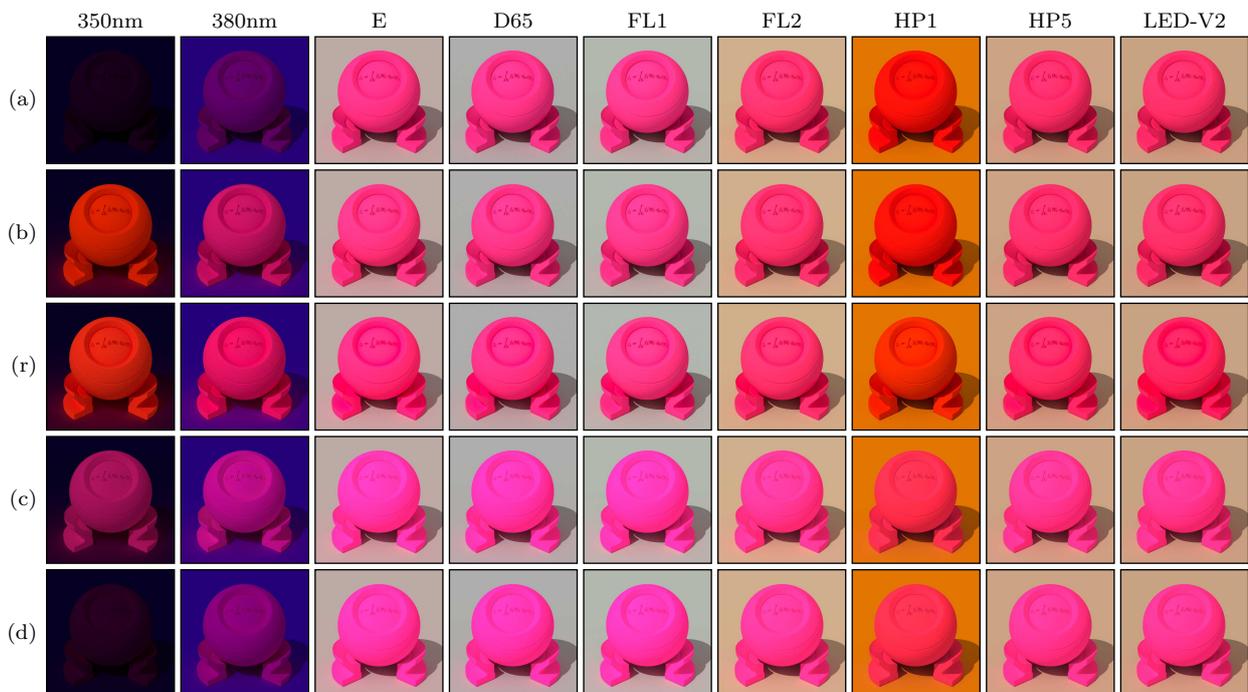
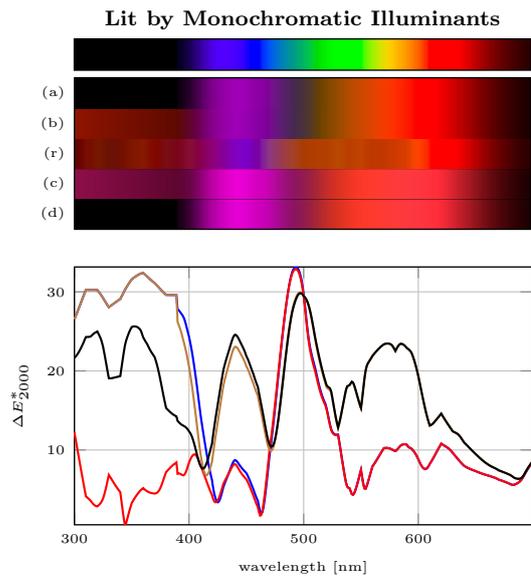
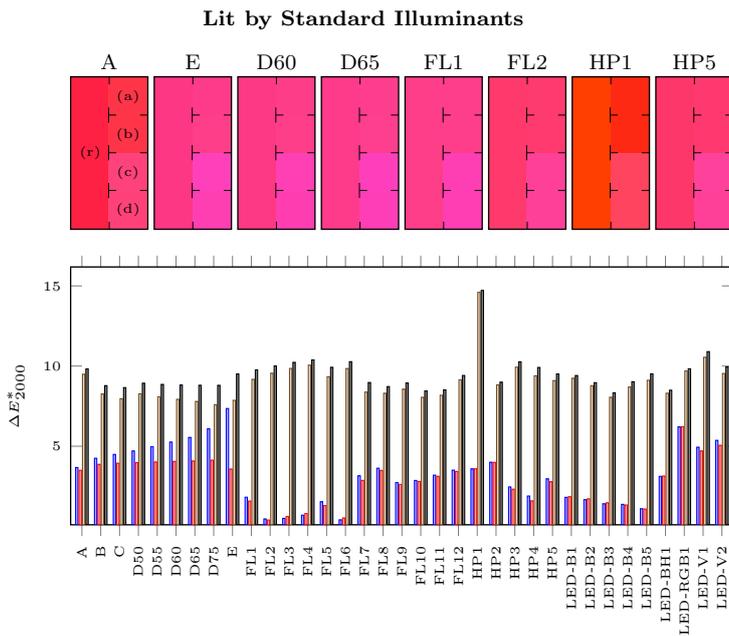
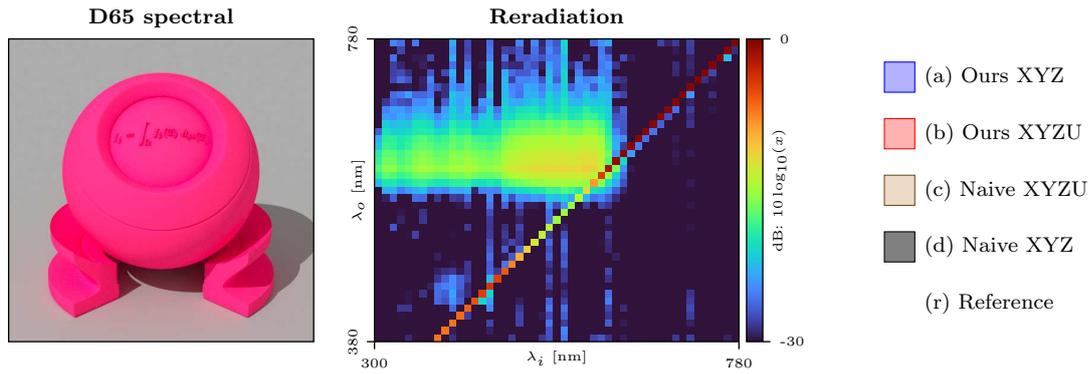
HERPIORA



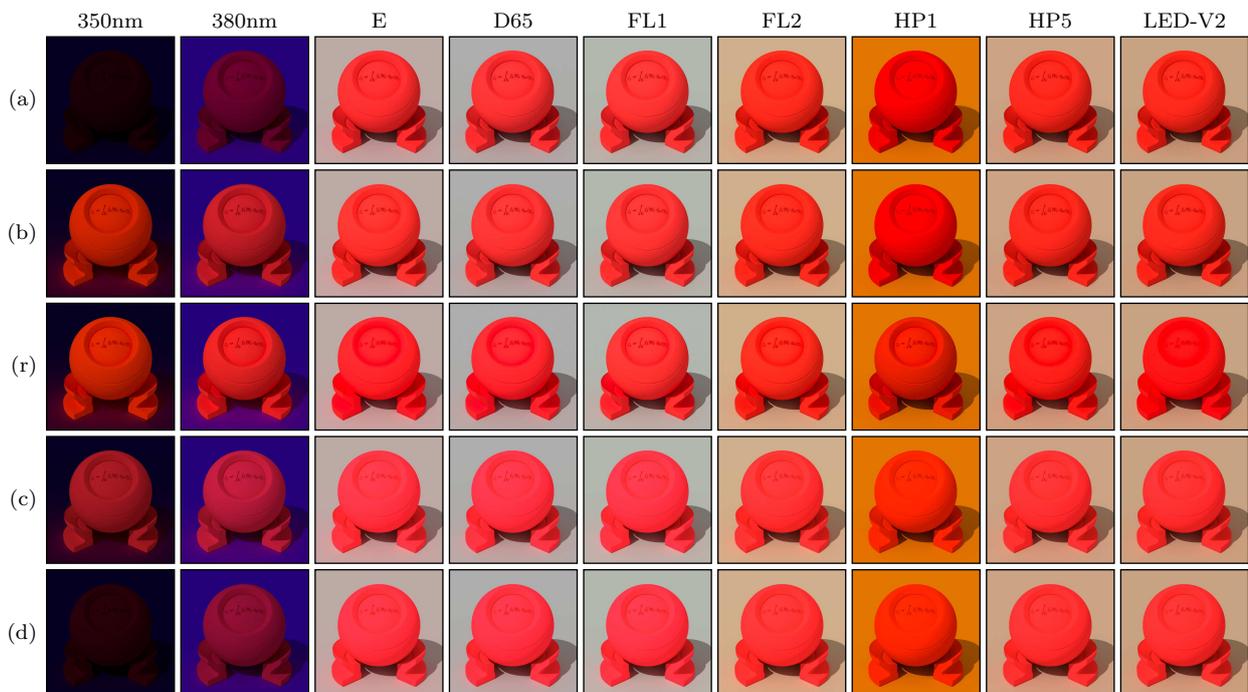
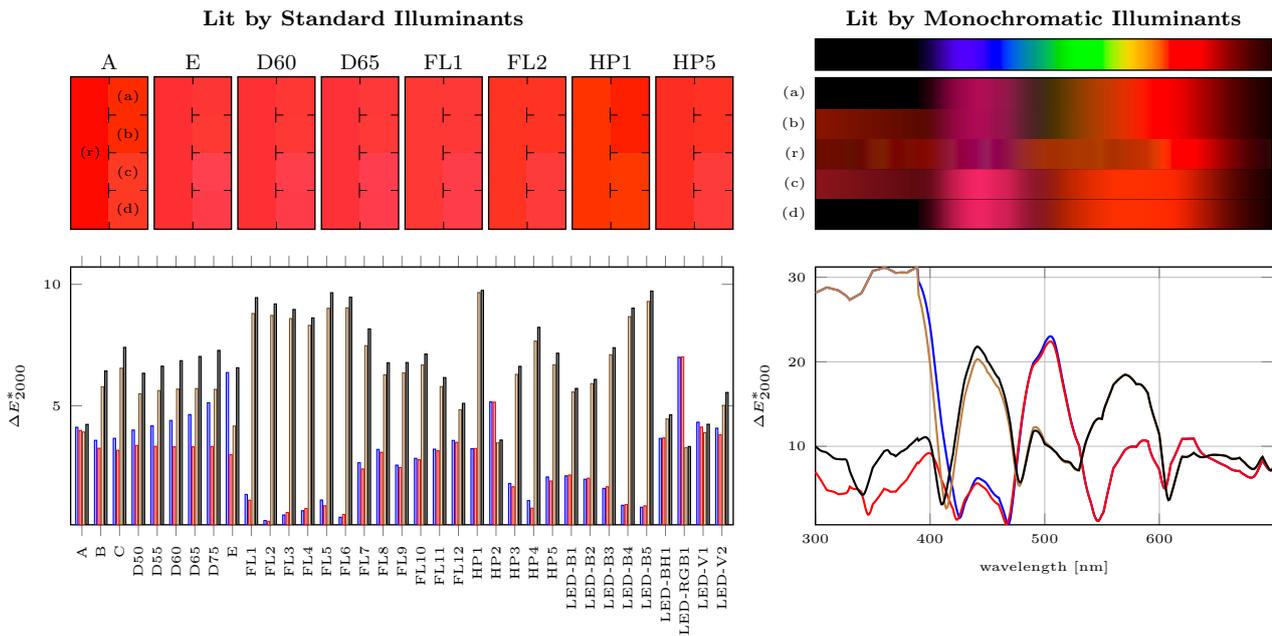
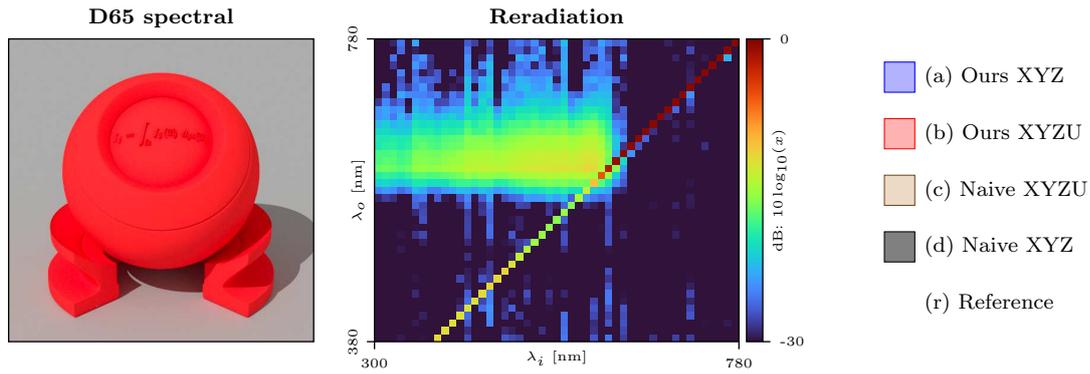
HERPICER



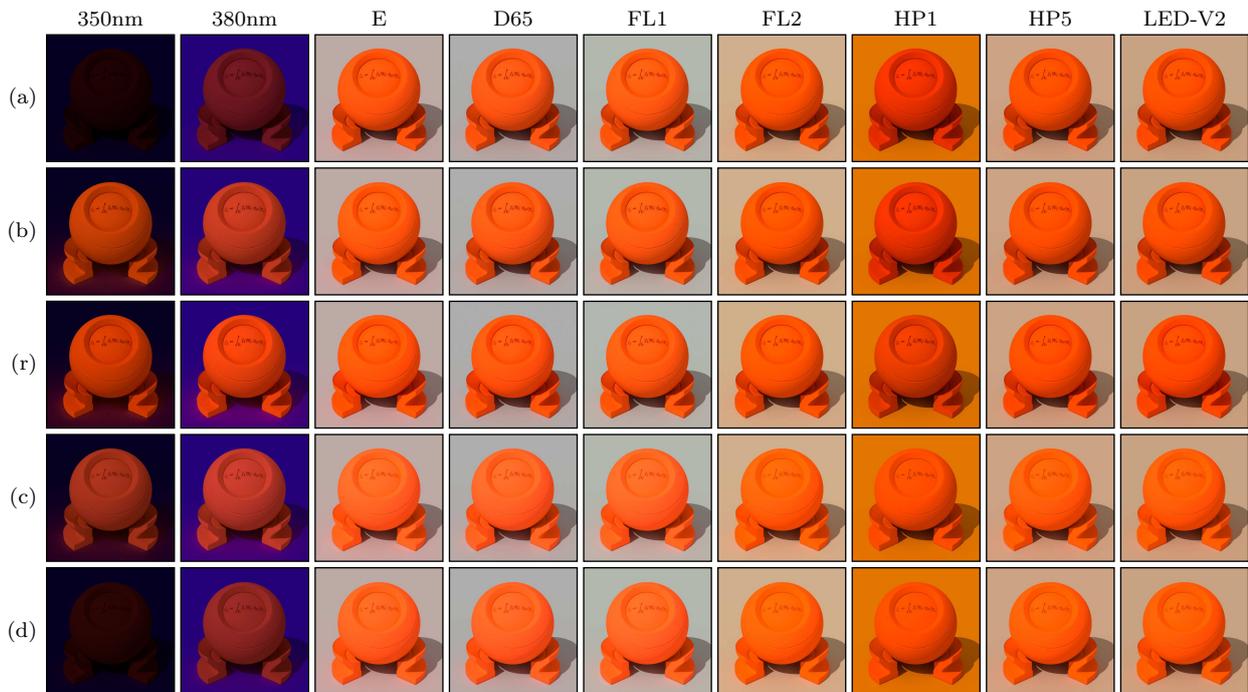
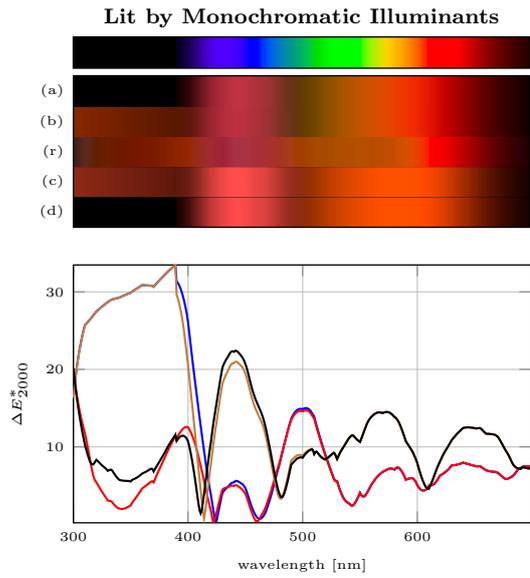
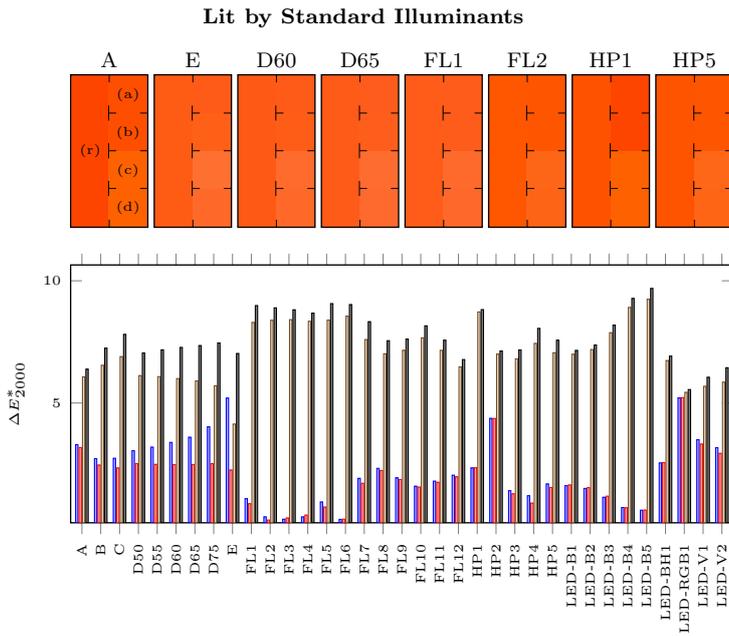
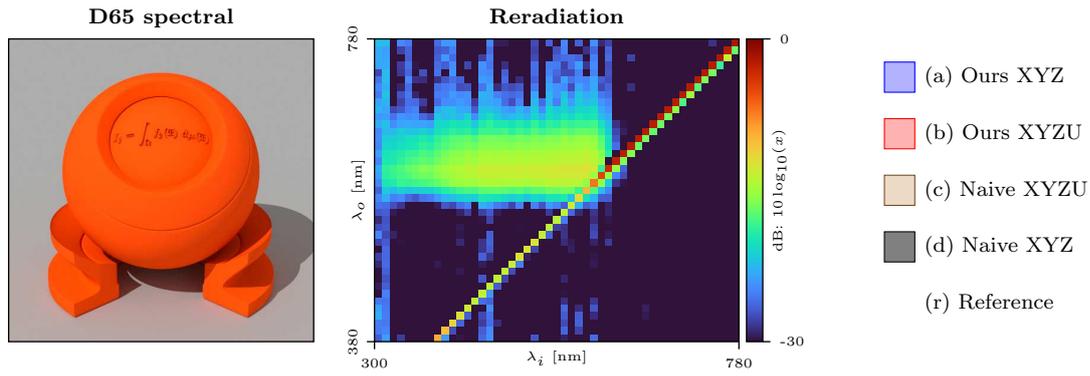
HERPIPIN



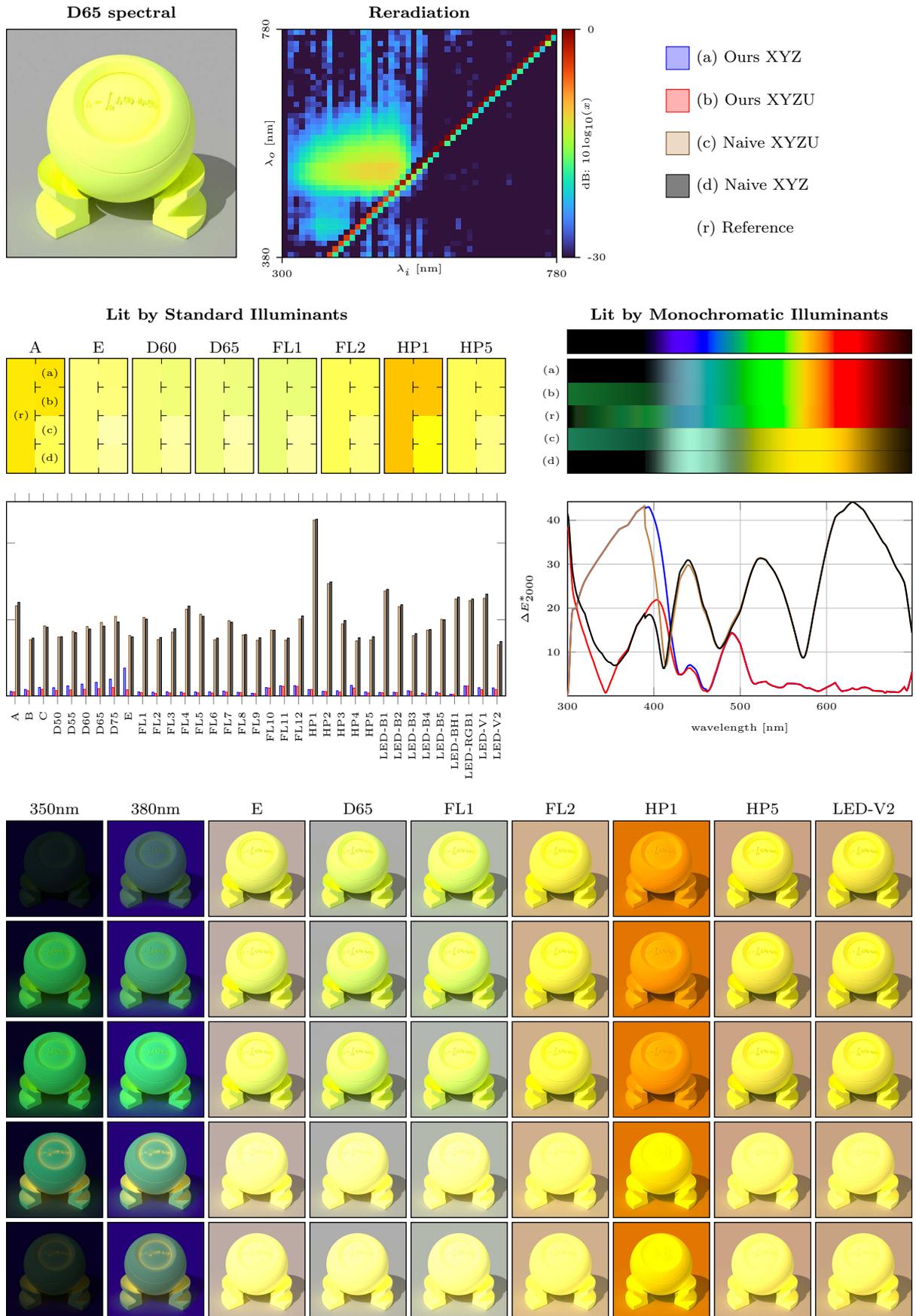
HERPIRED



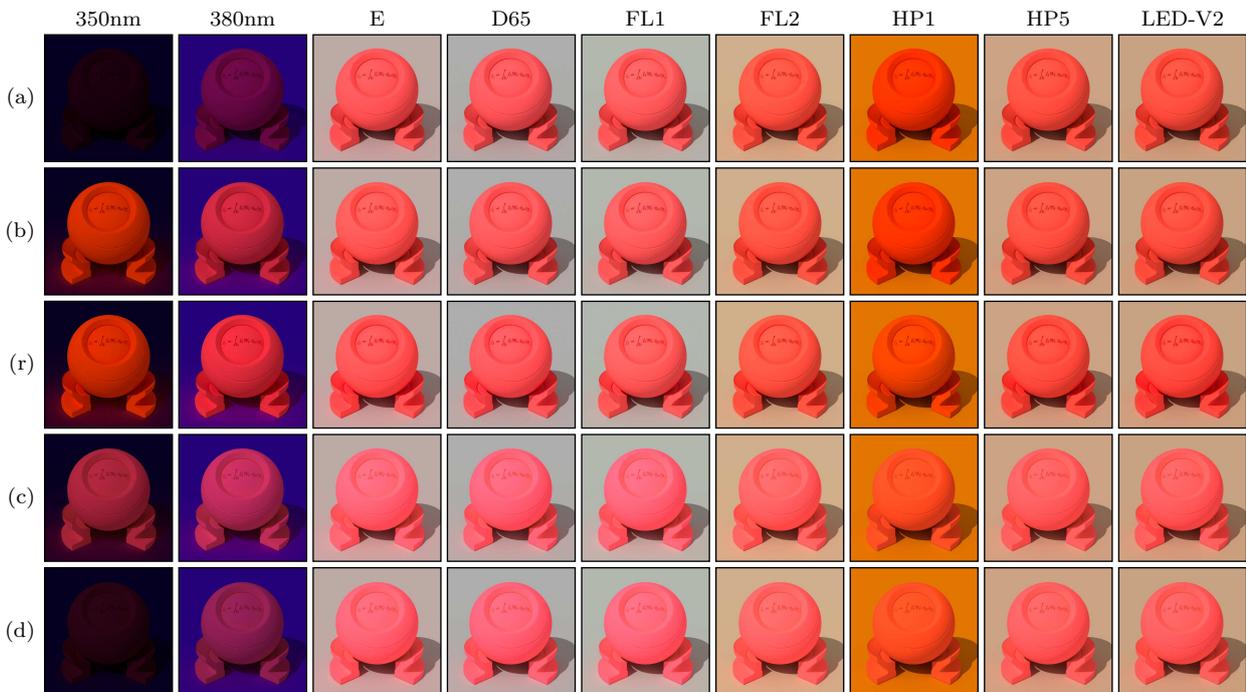
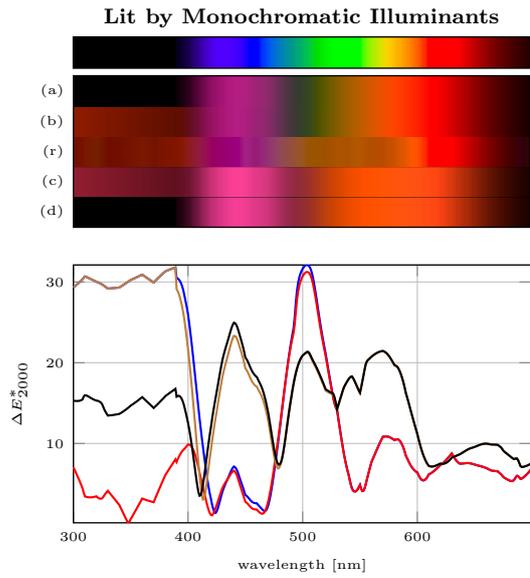
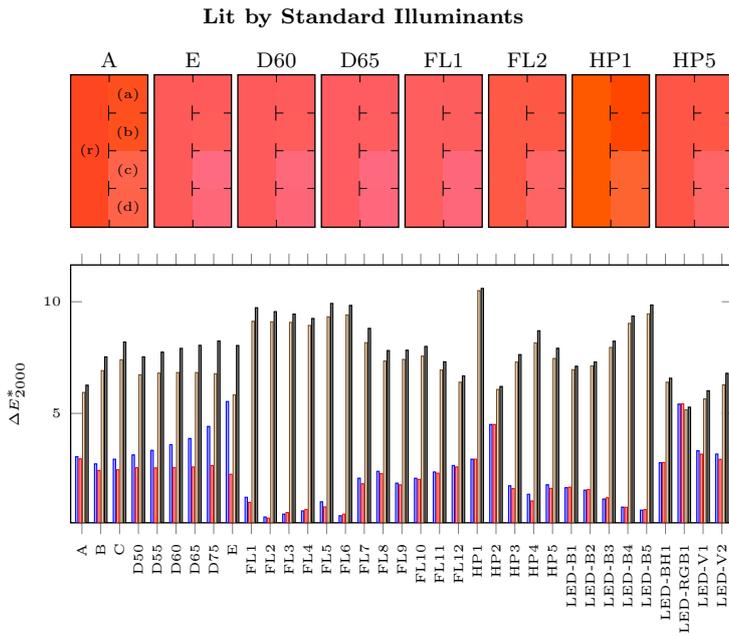
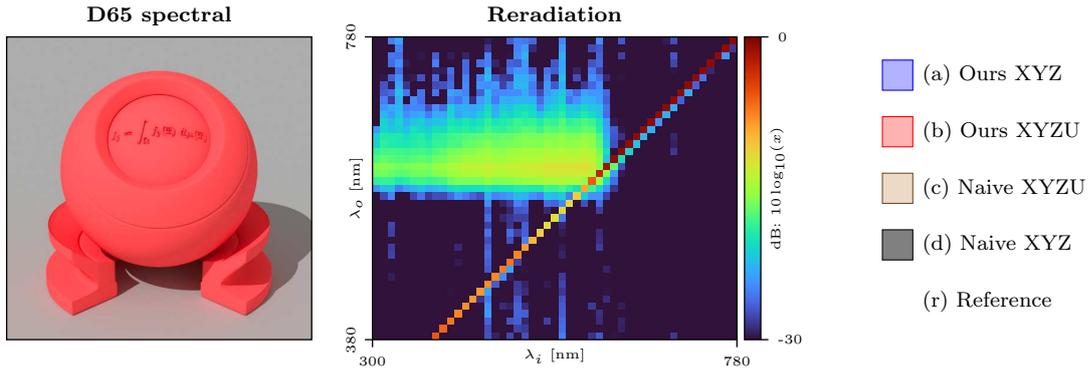
POLYORAN



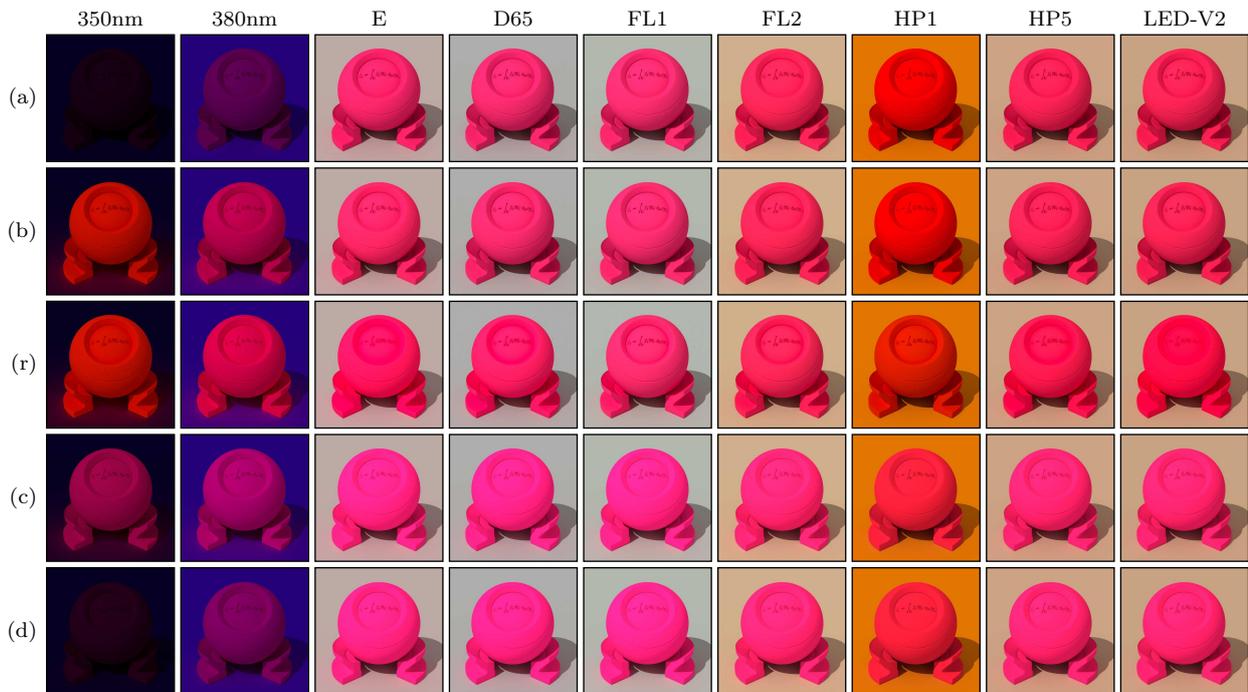
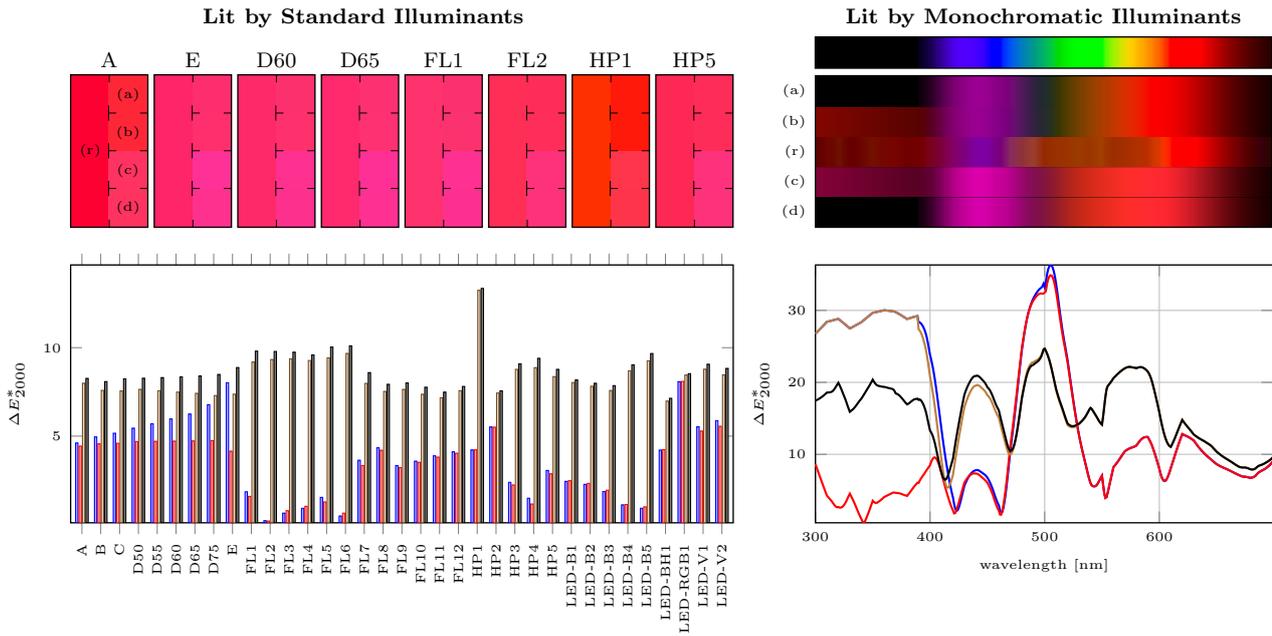
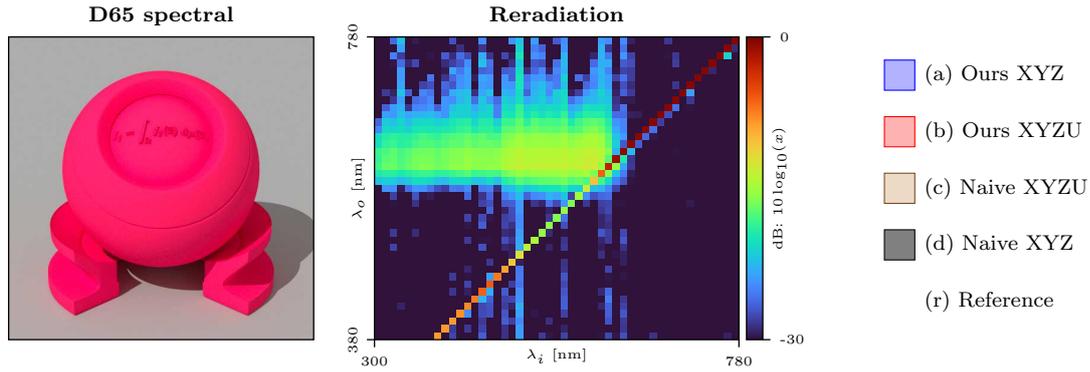
GOLFYE



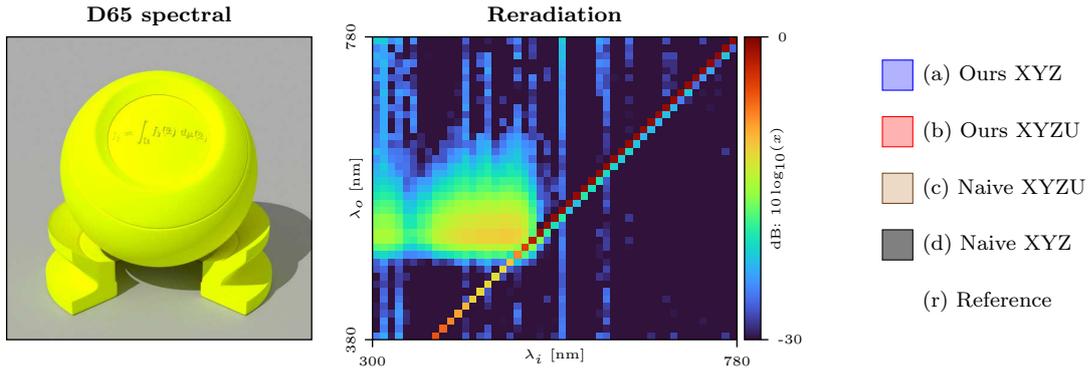
IXCAXPRE



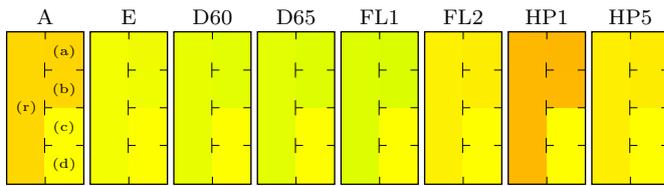
HERPIMAG



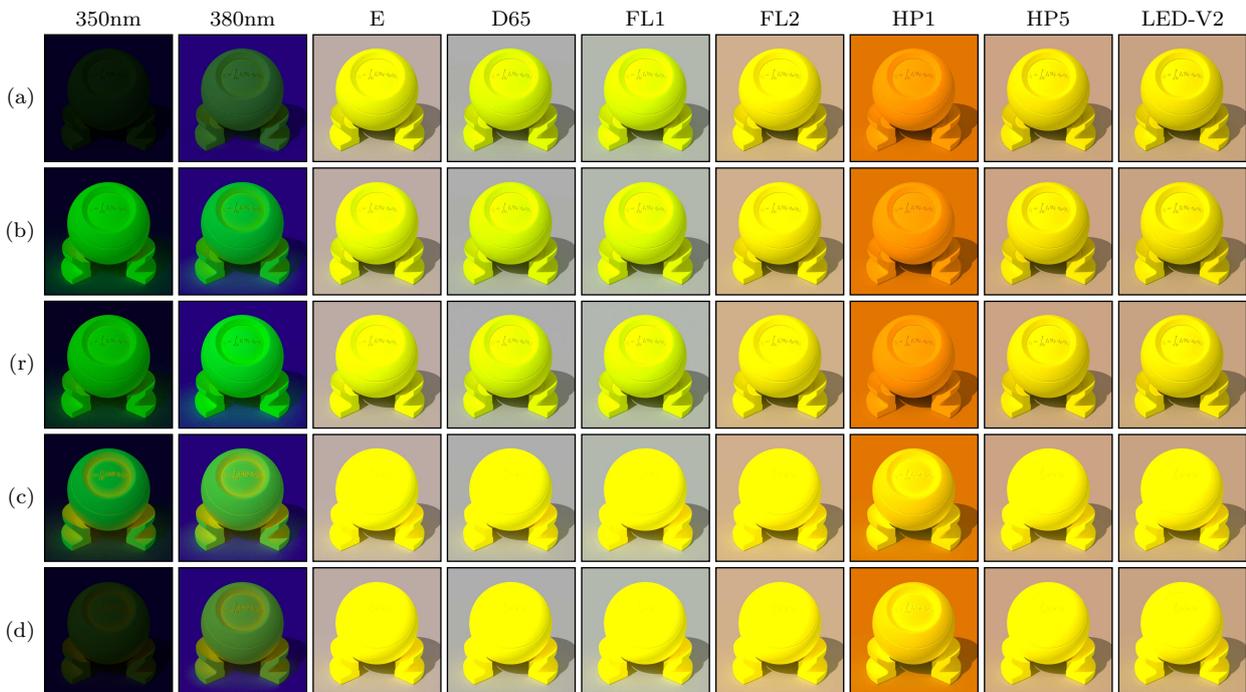
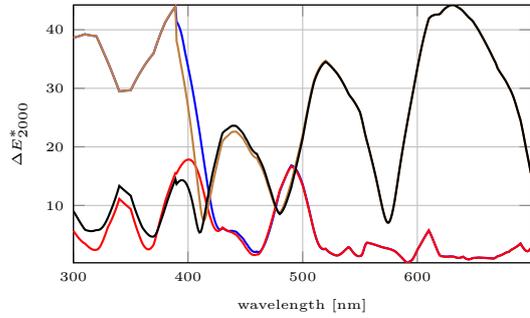
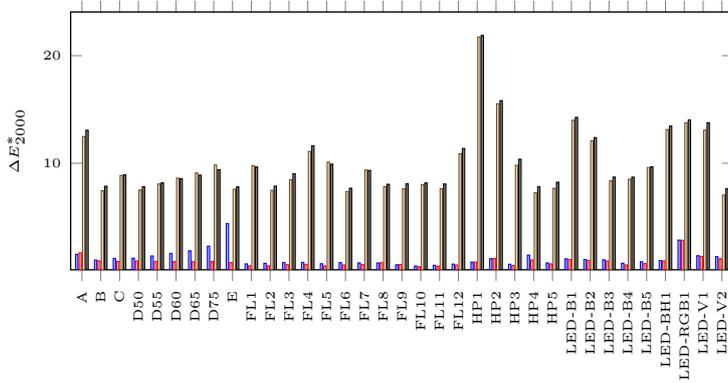
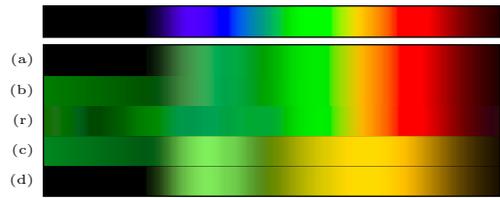
IXCCLYE



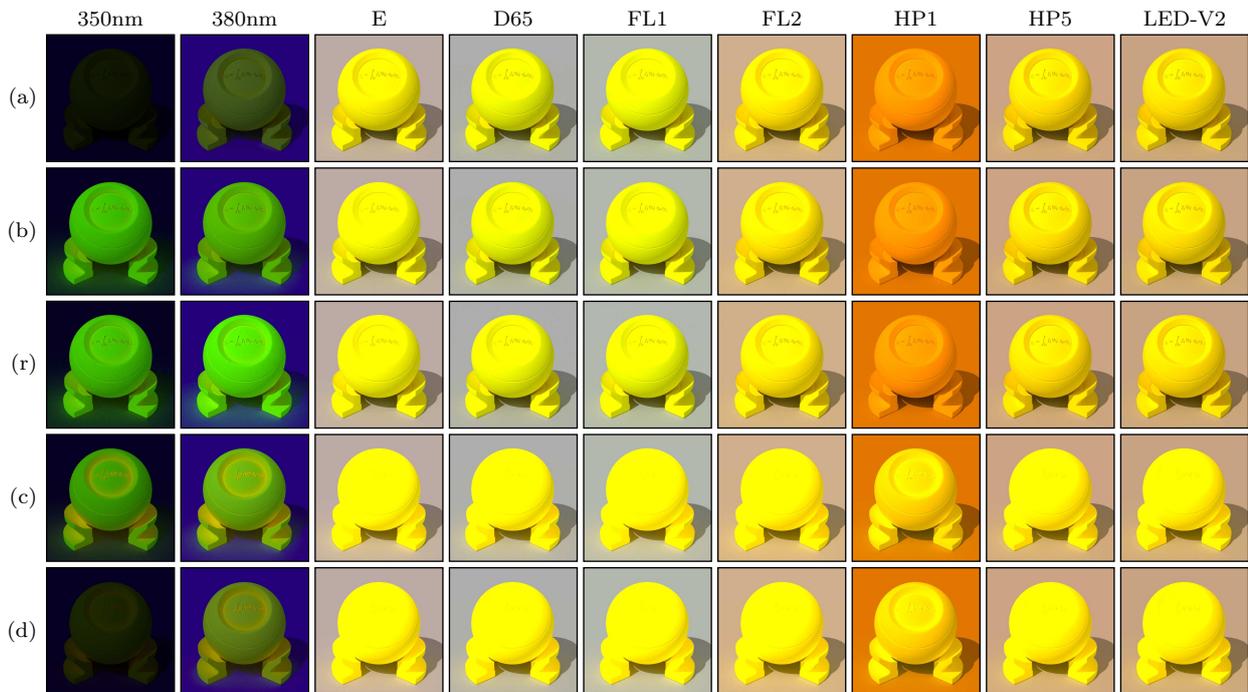
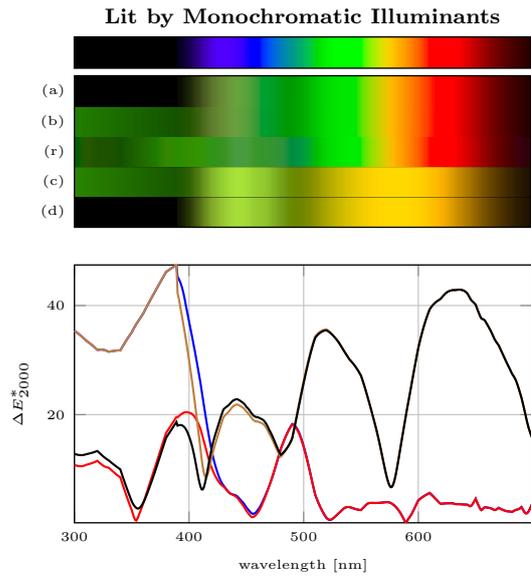
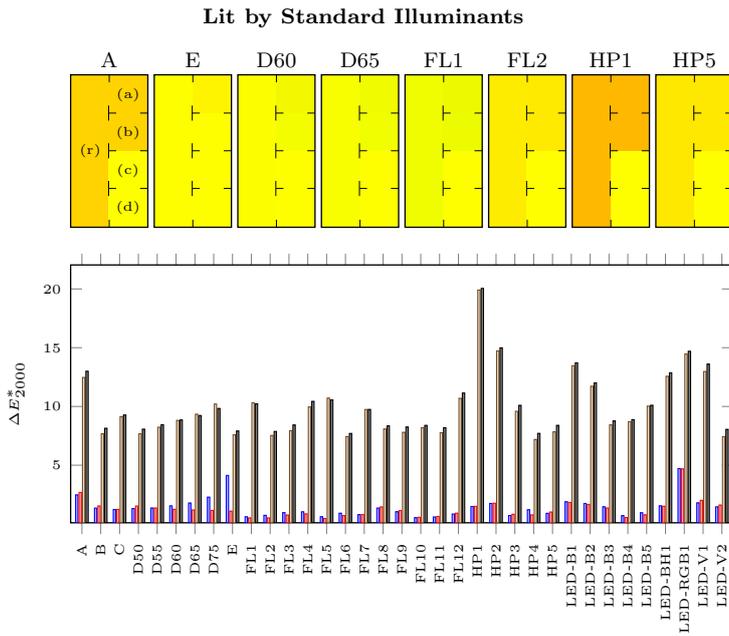
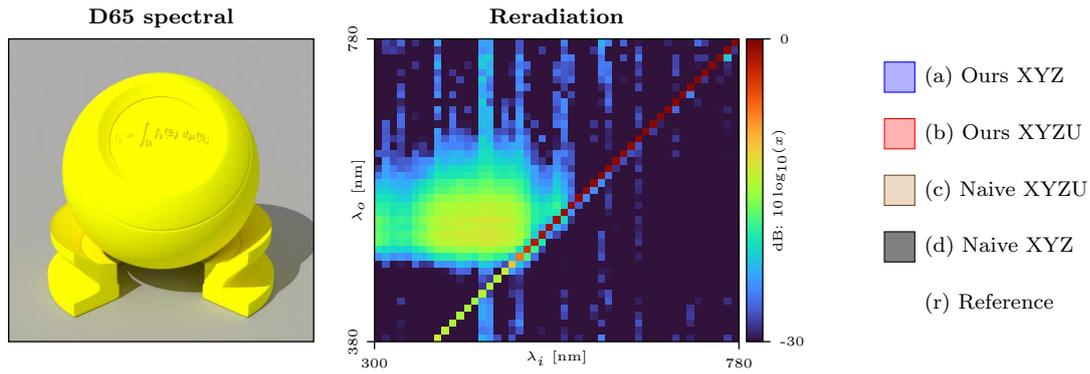
Lit by Standard Illuminants



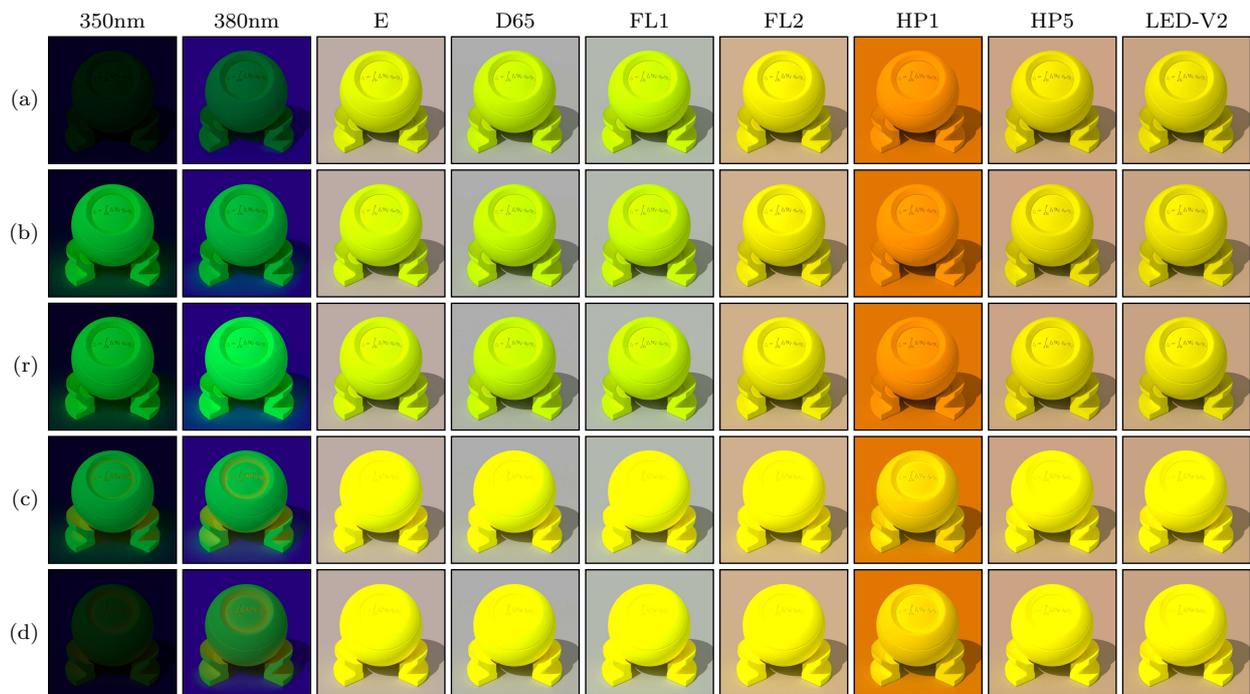
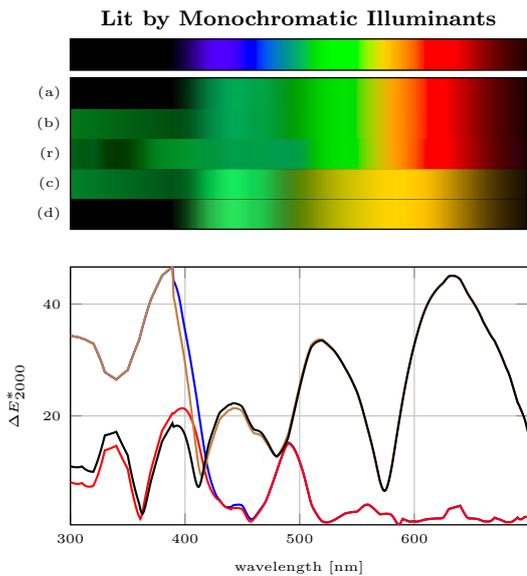
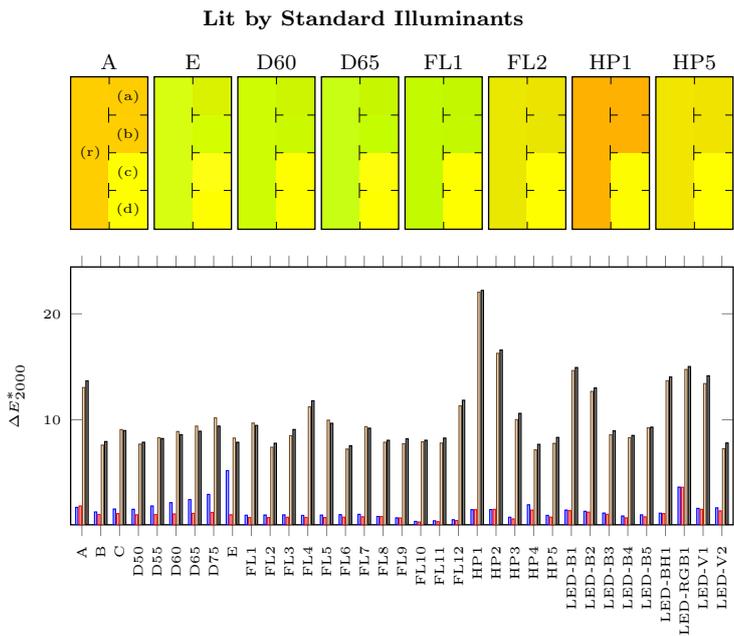
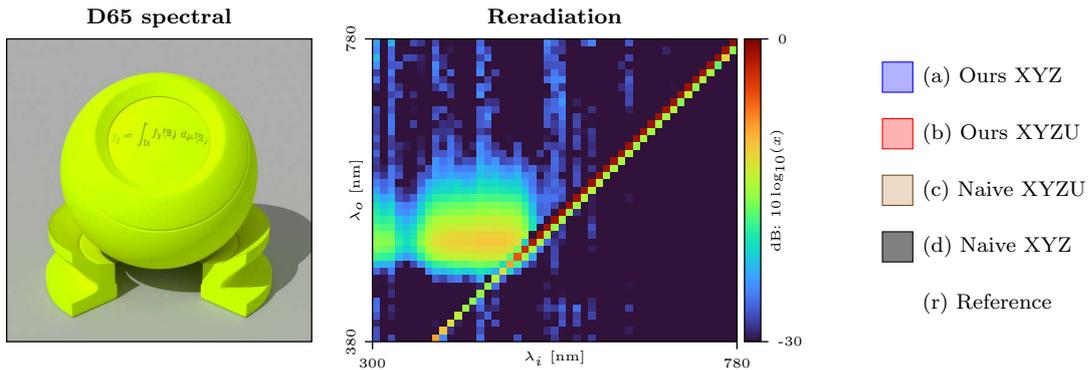
Lit by Monochromatic Illuminants



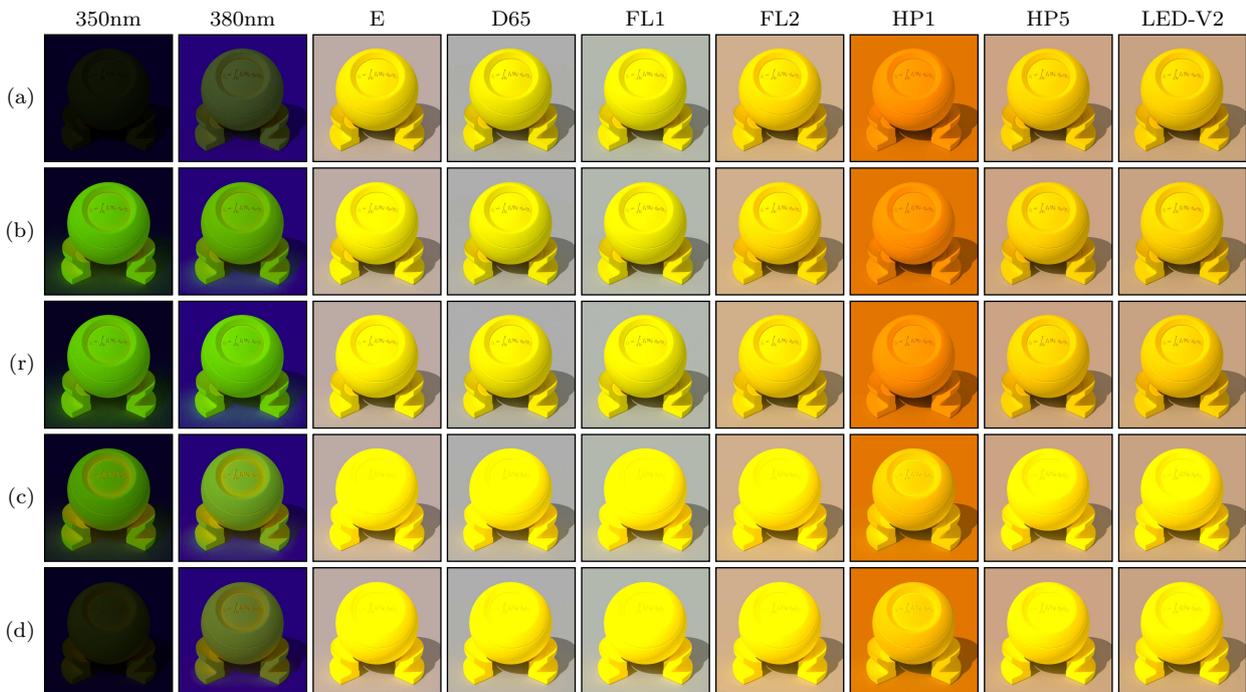
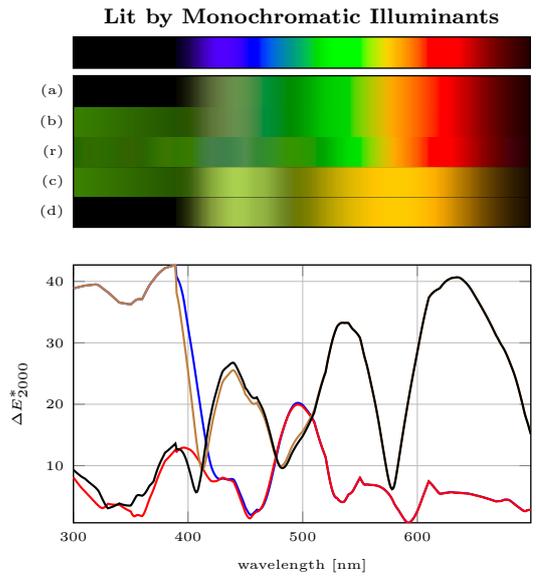
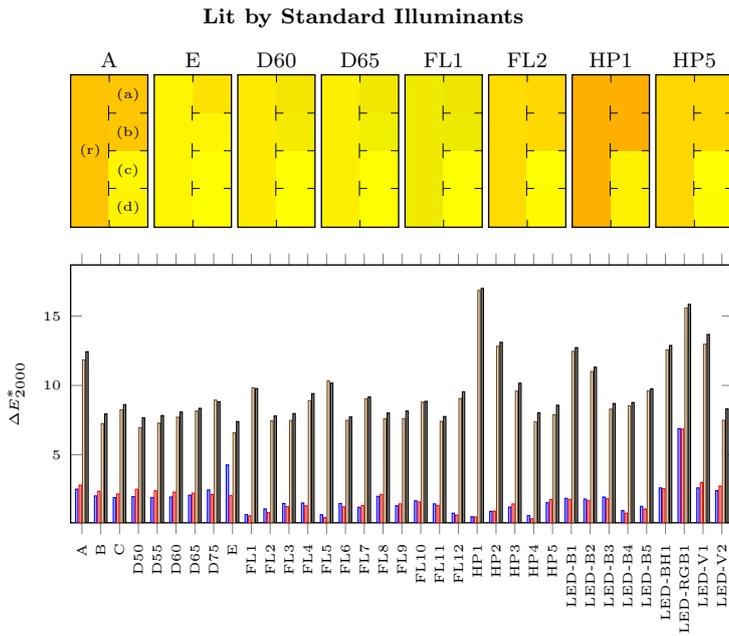
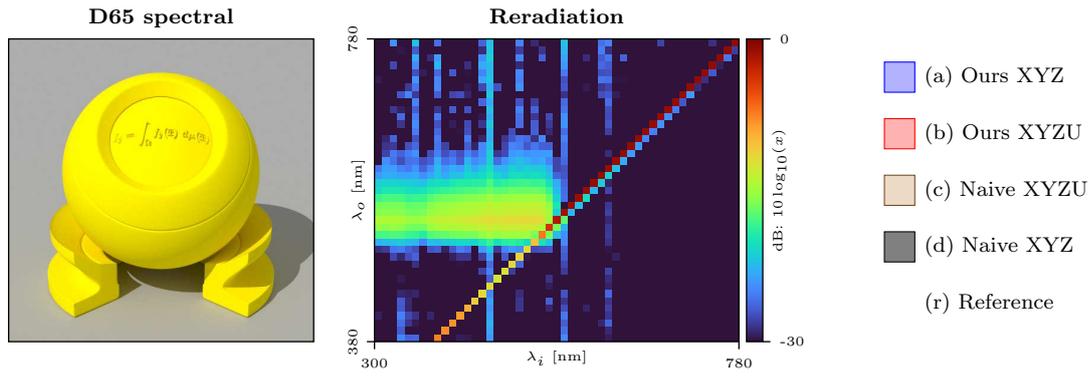
HERPICHA



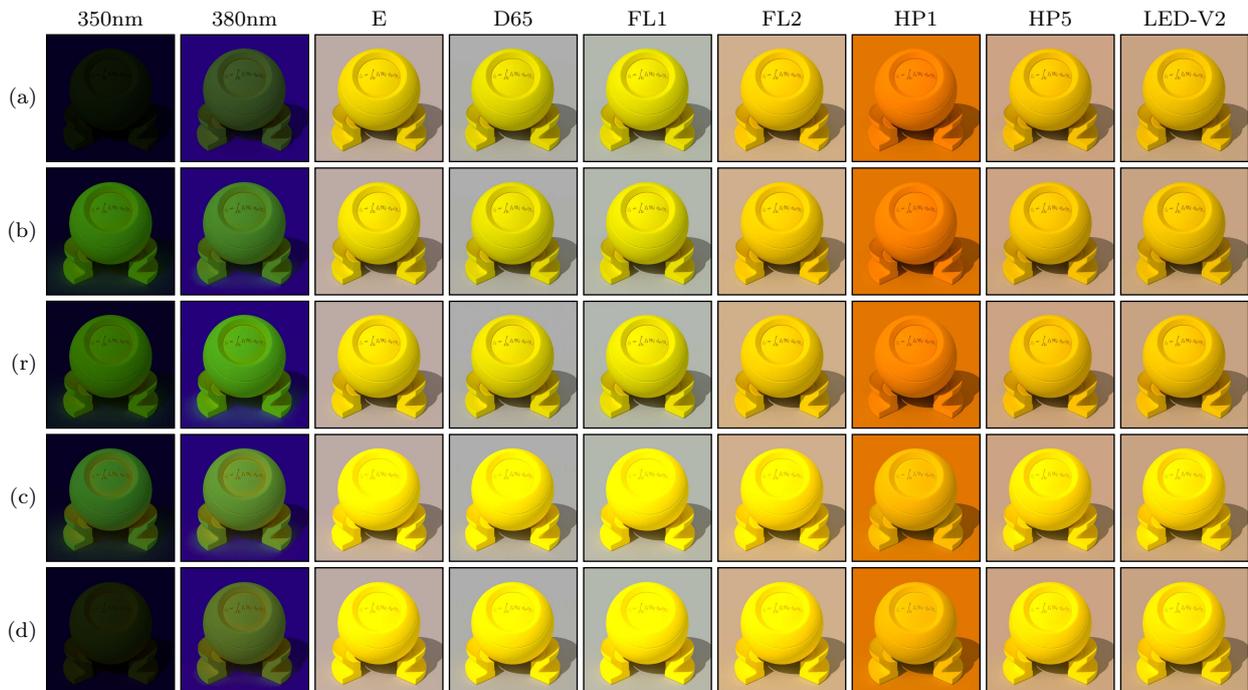
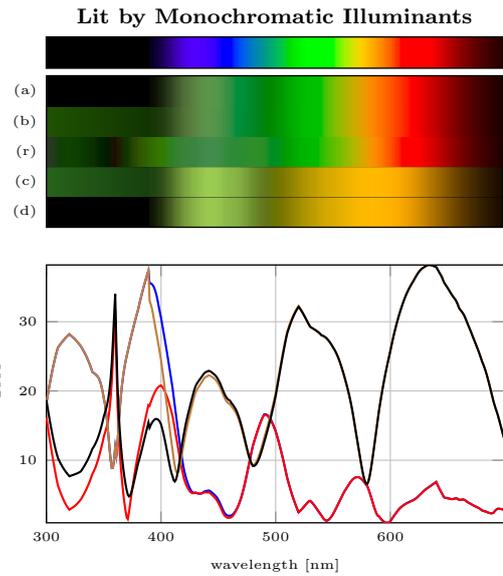
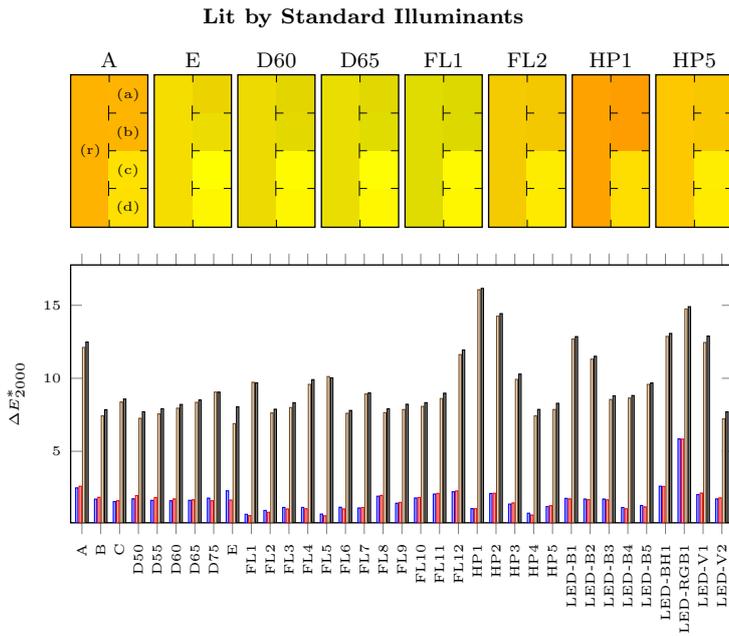
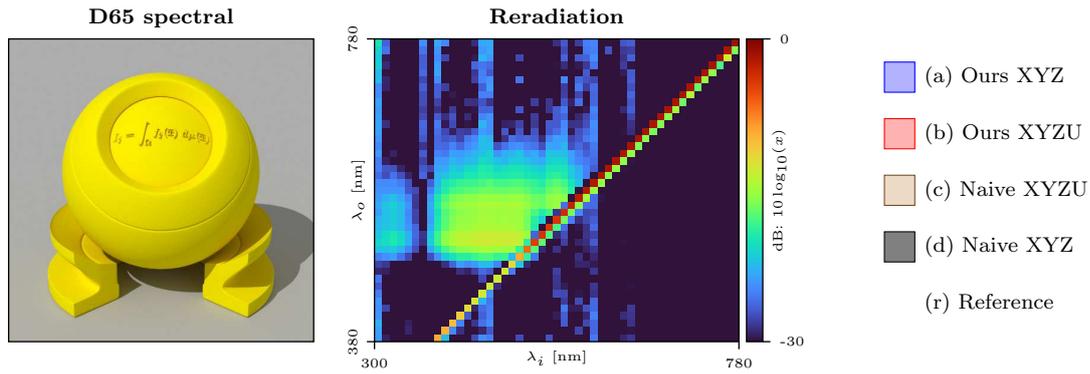
TEXTYELL



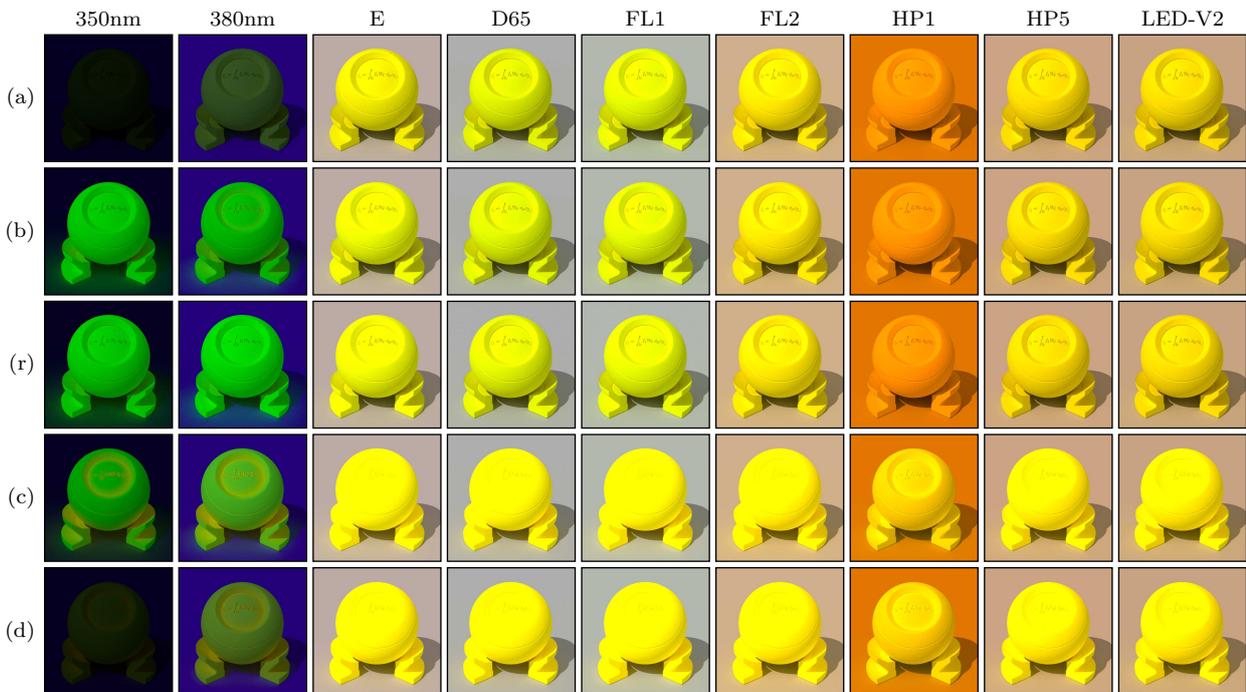
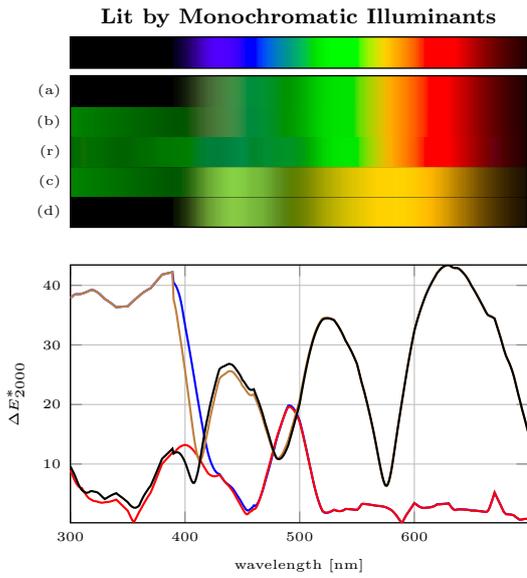
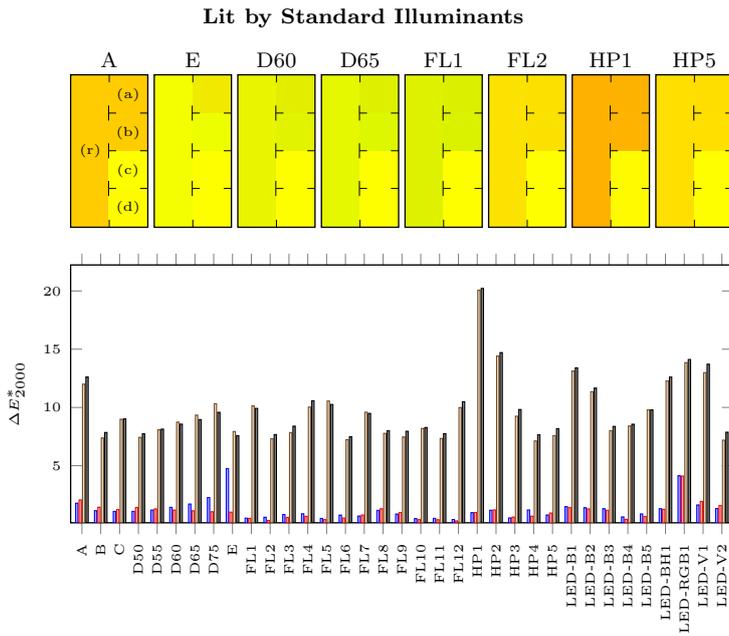
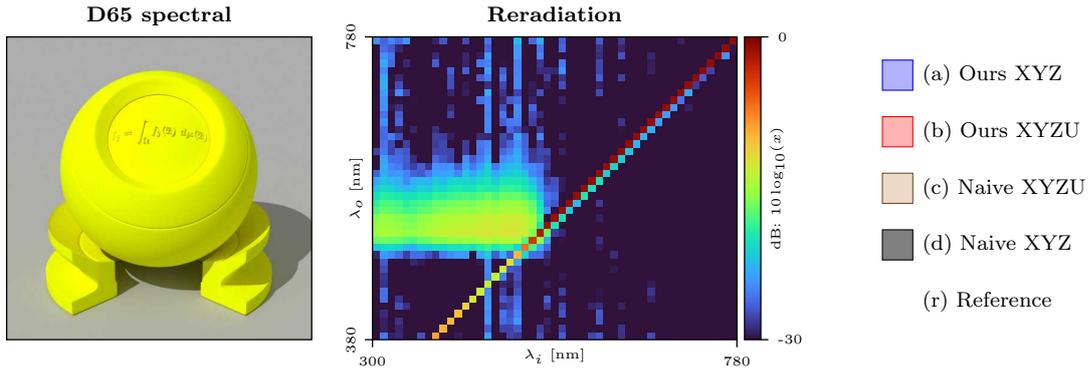
IXCRLALE



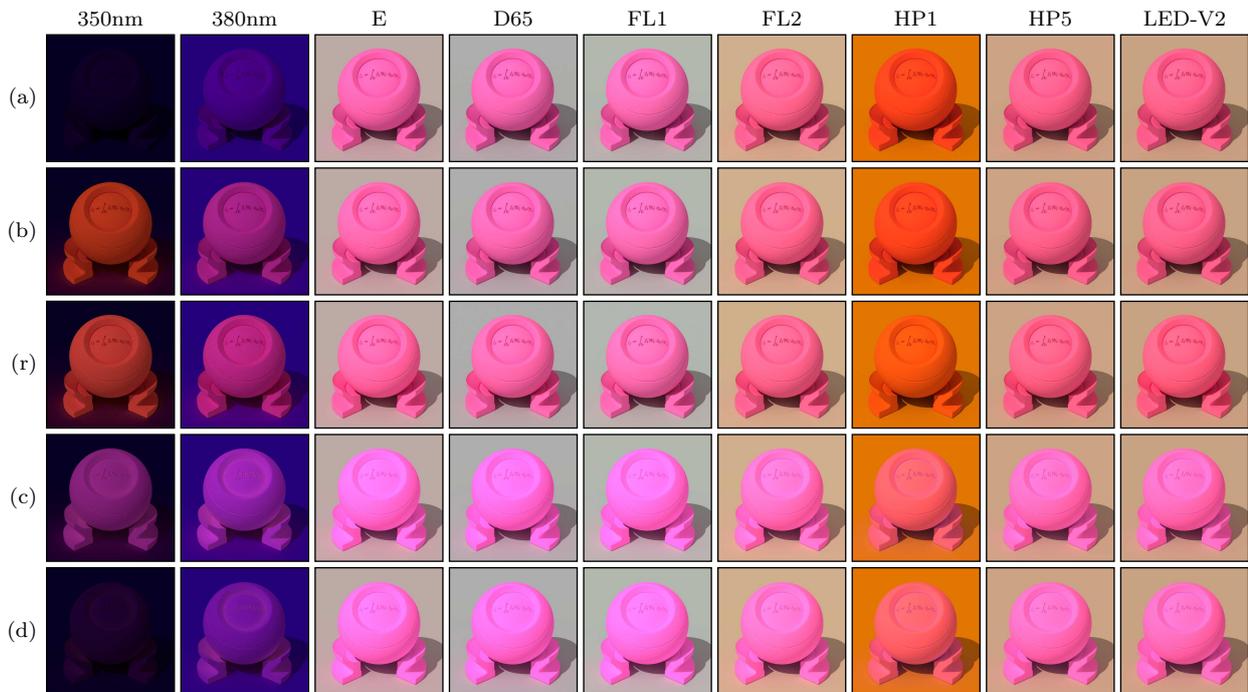
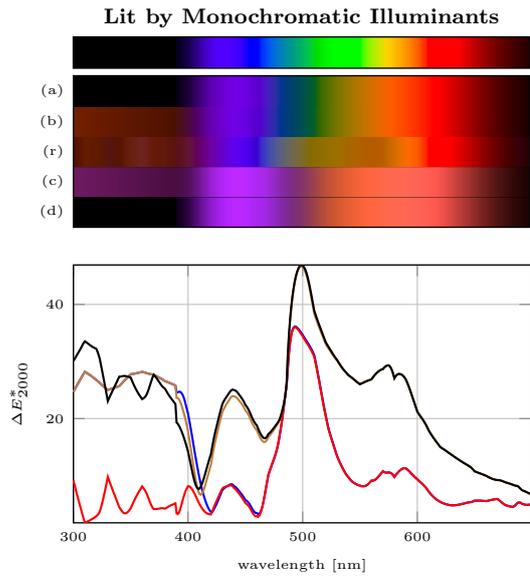
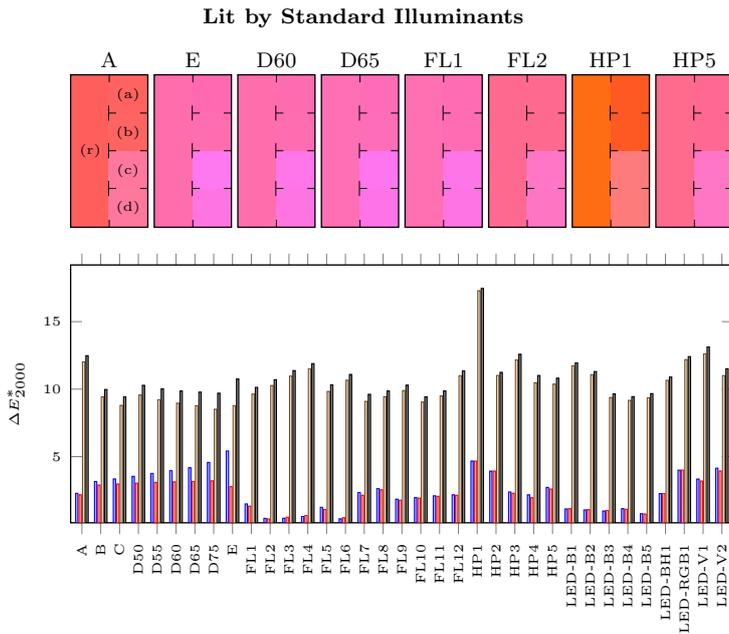
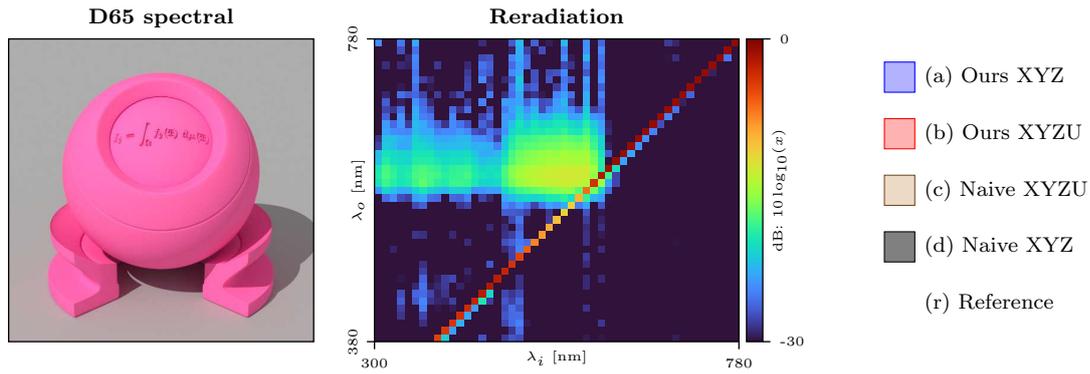
POLYYELL



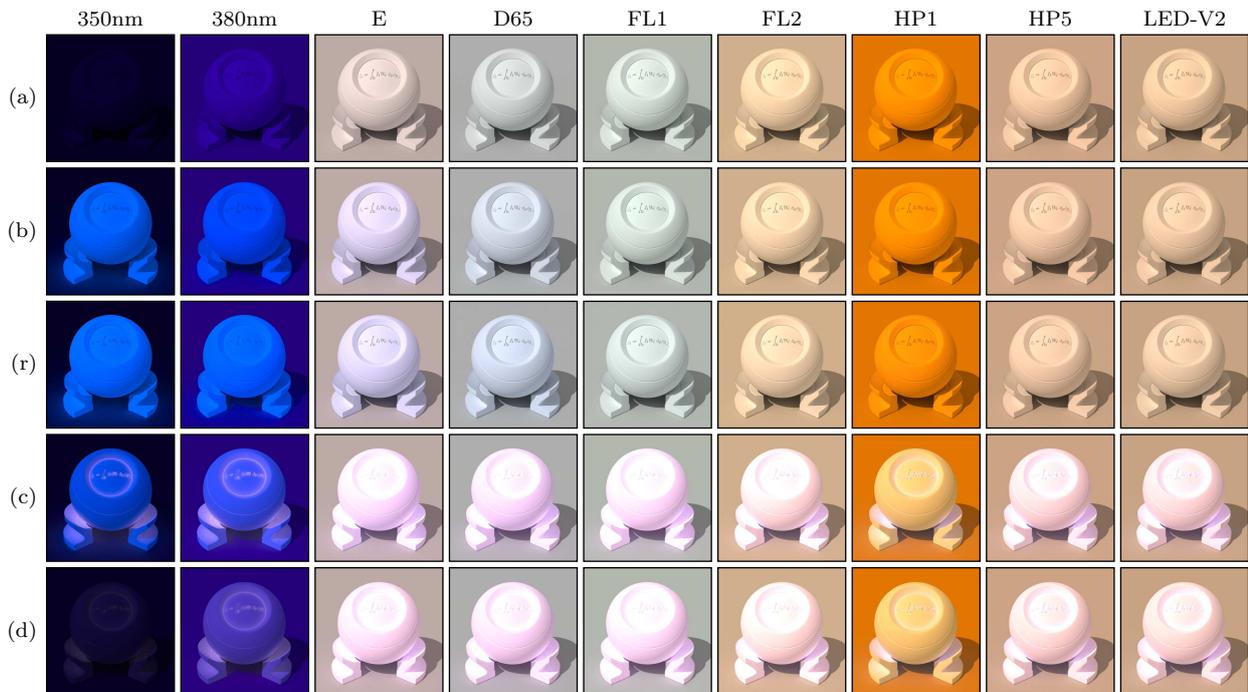
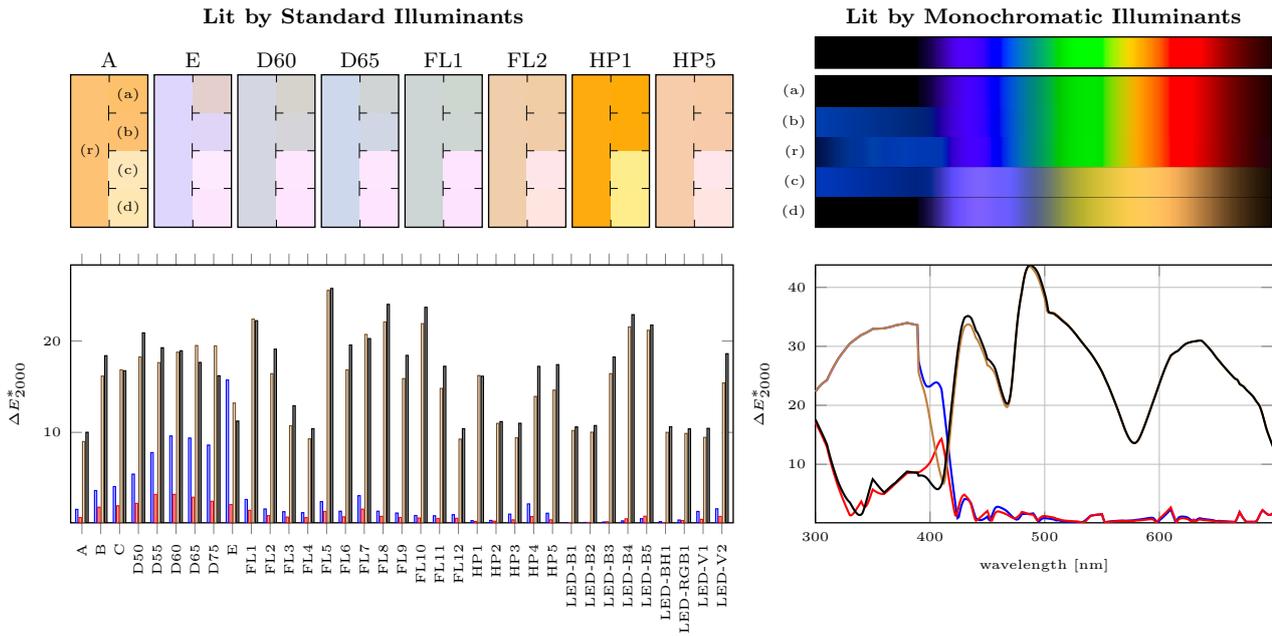
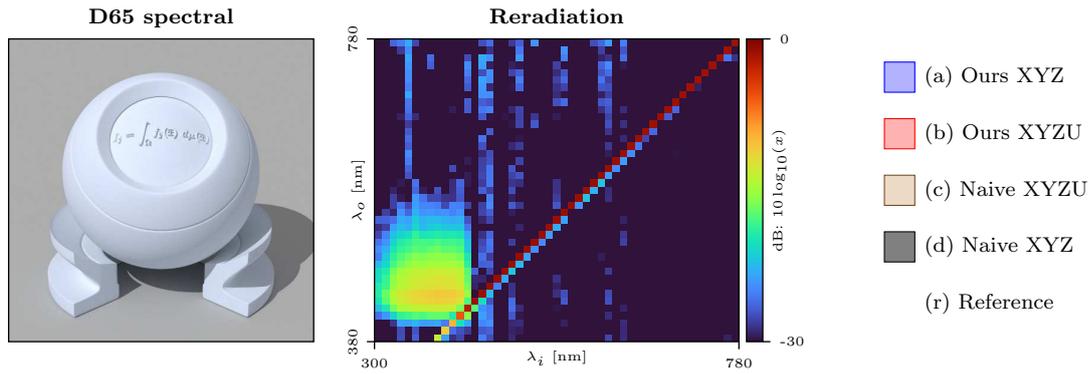
IXCSSTHL



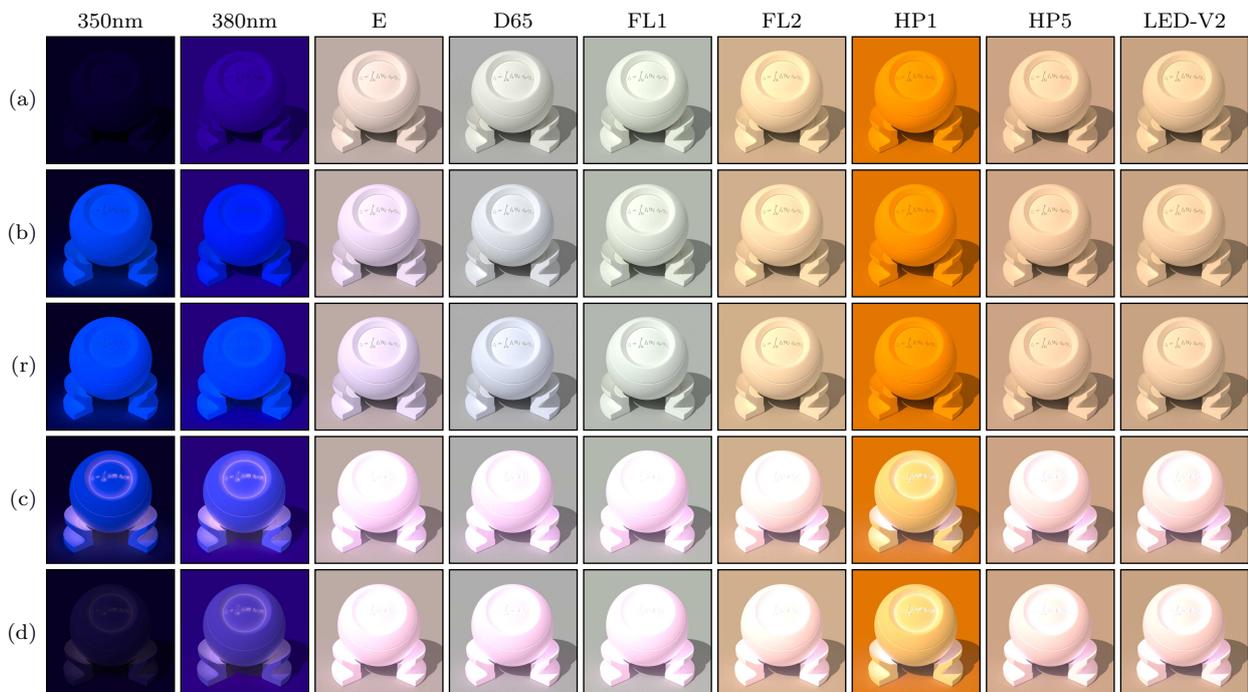
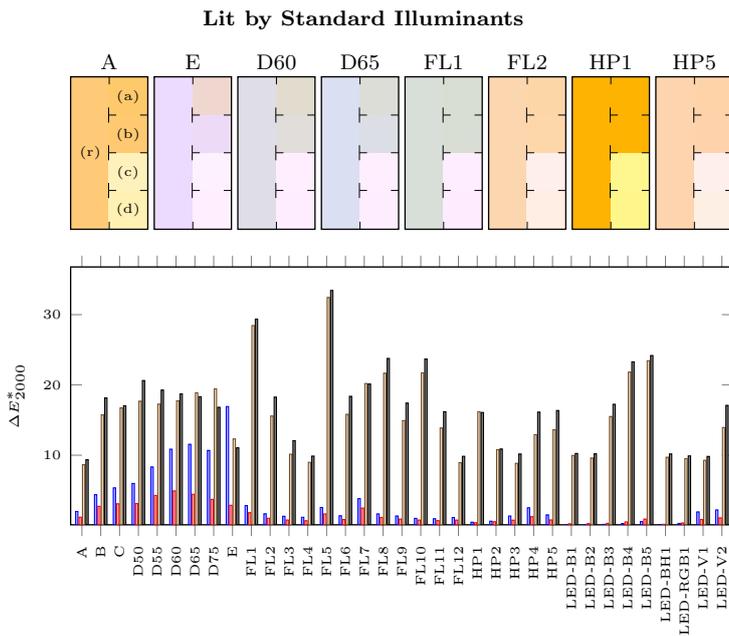
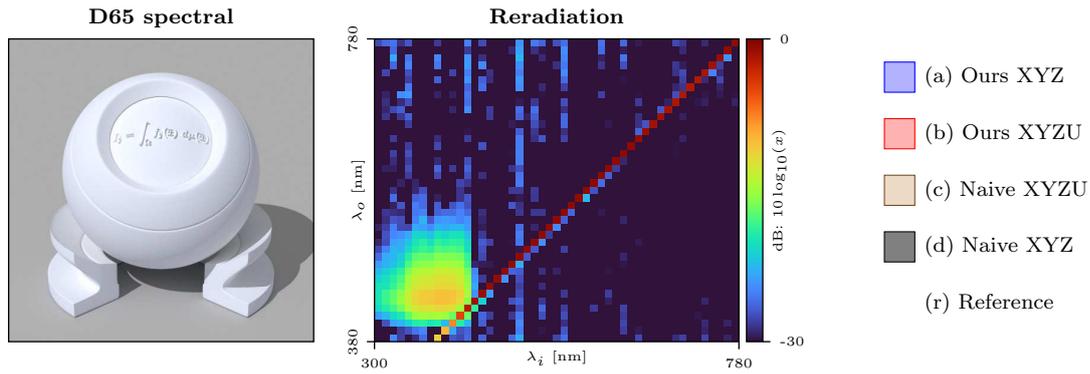
IXCRHTP



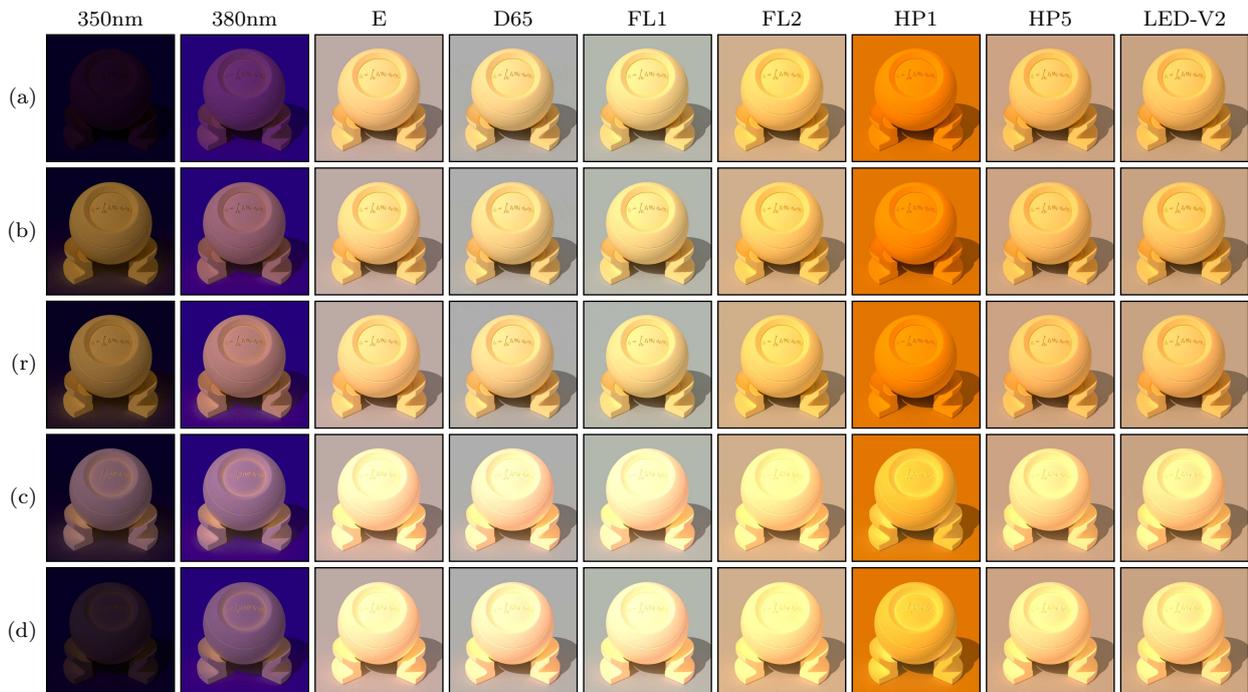
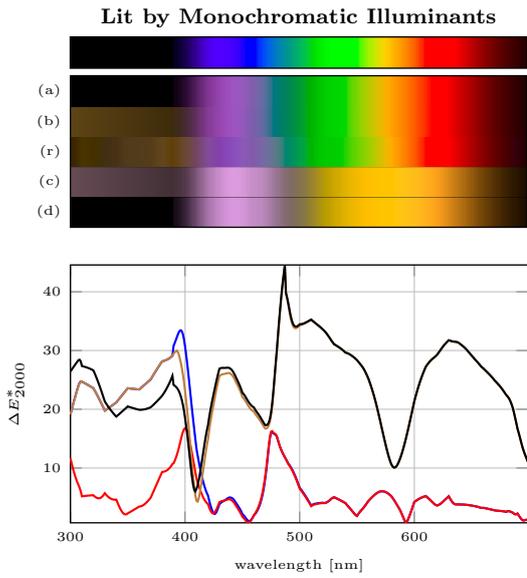
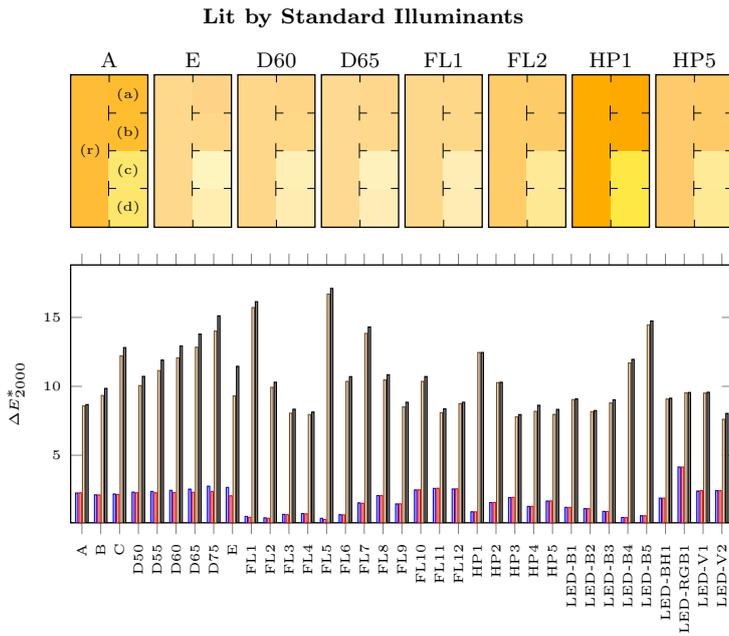
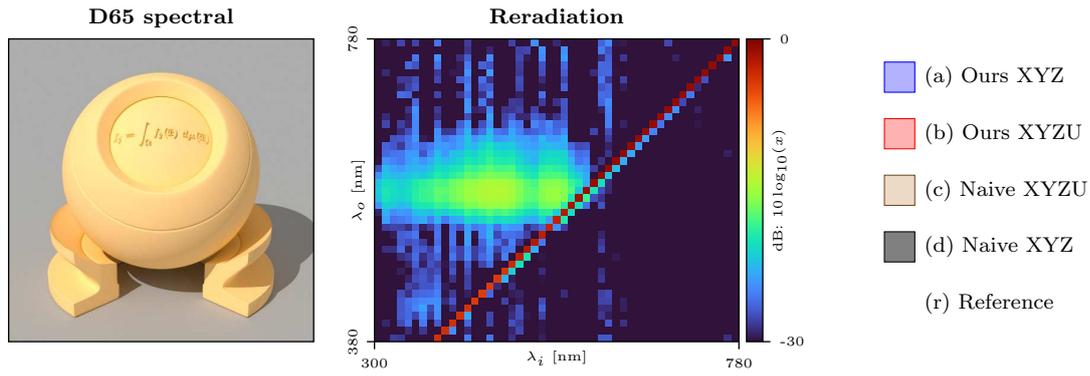
PHP8HPWH



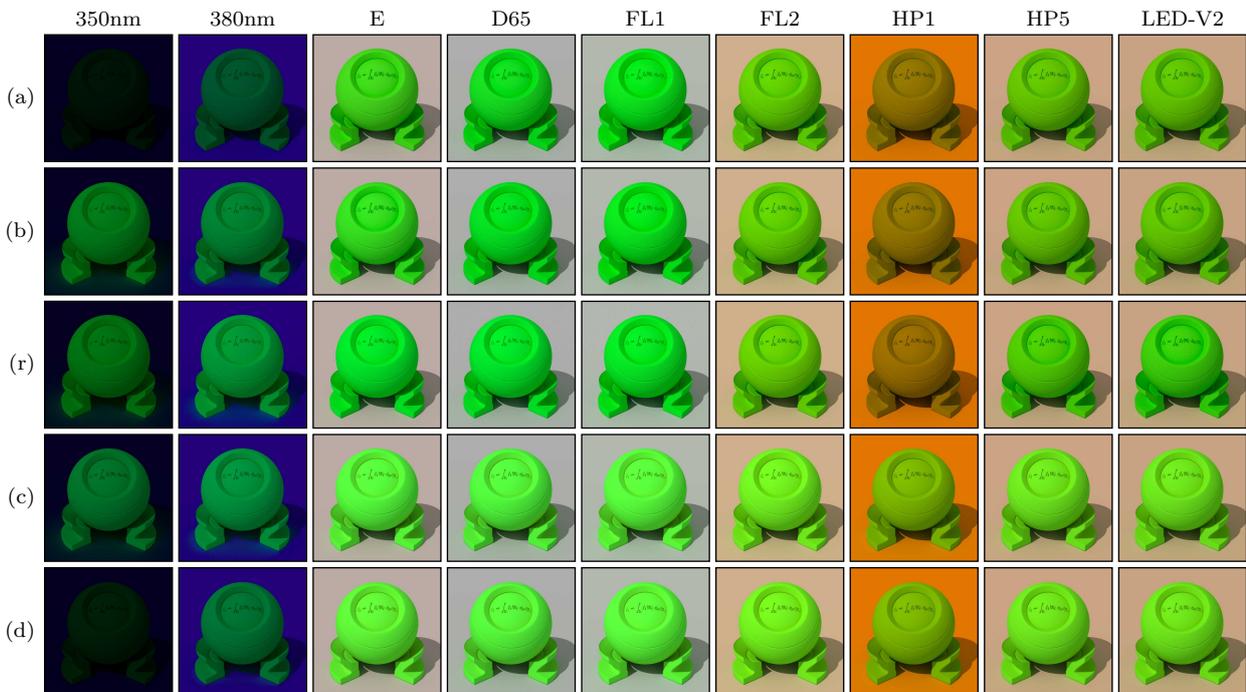
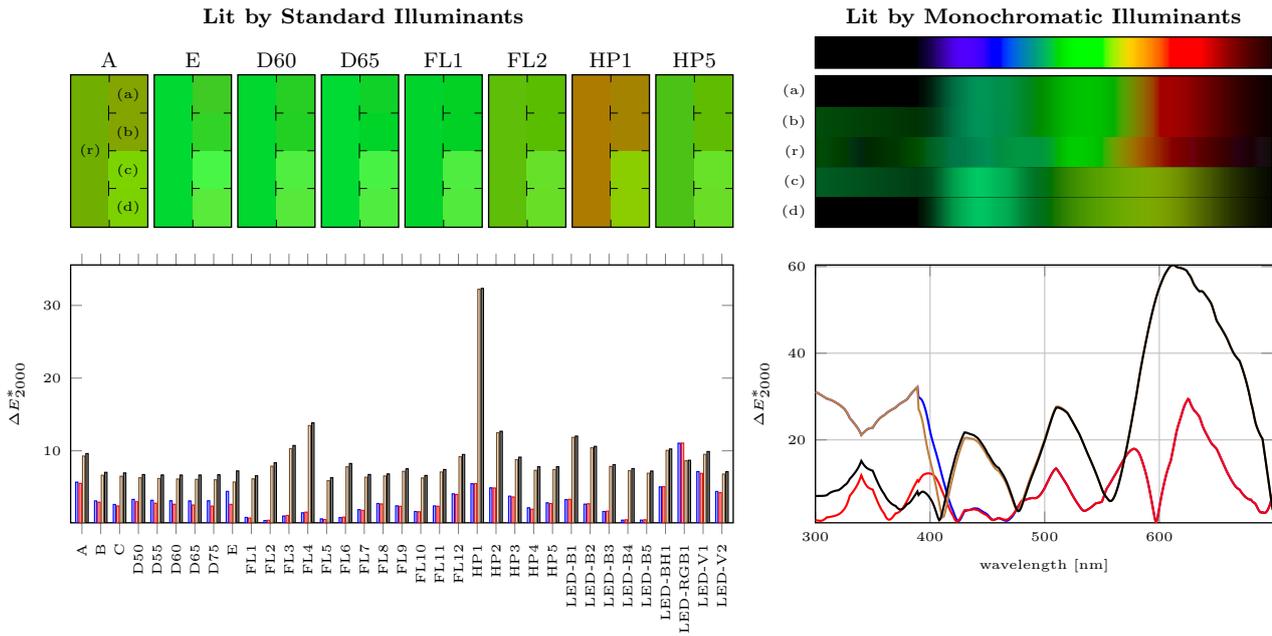
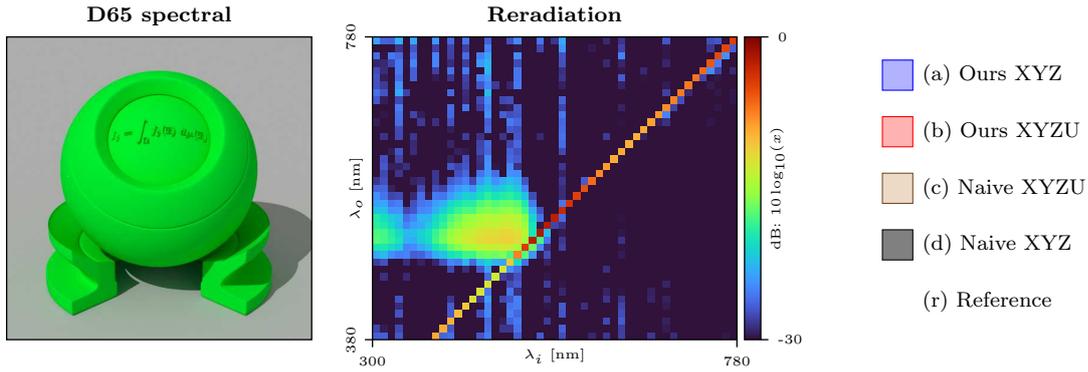
CIBA12



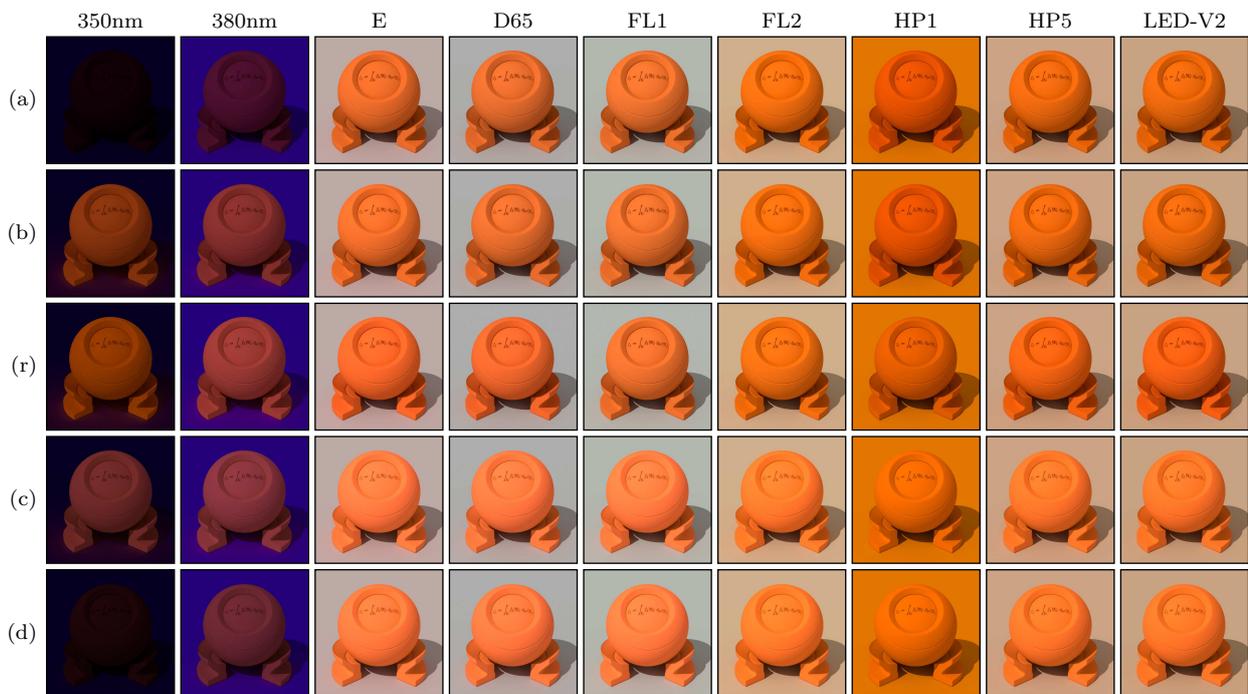
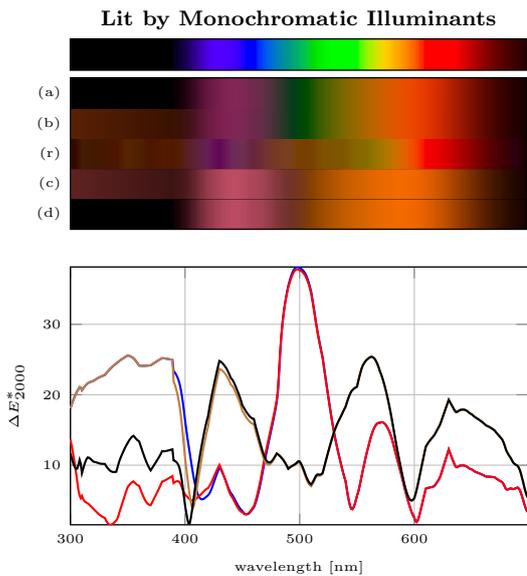
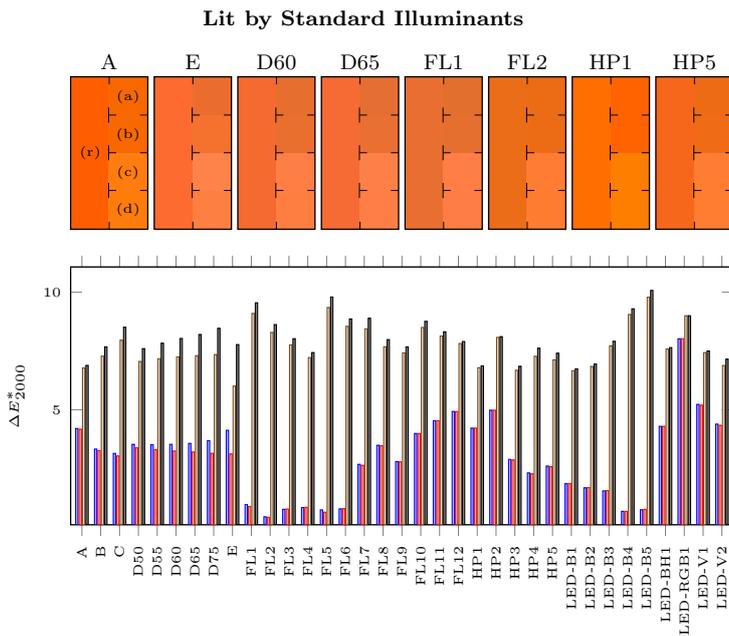
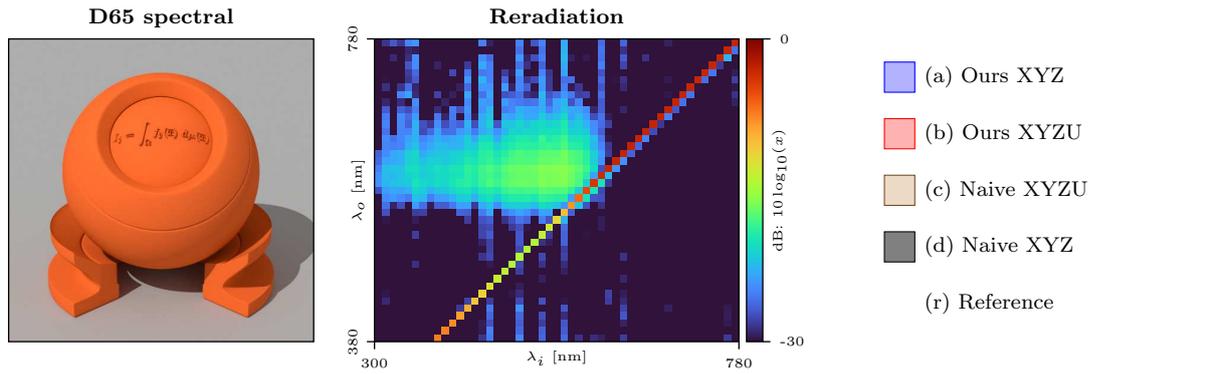
IXCATAN



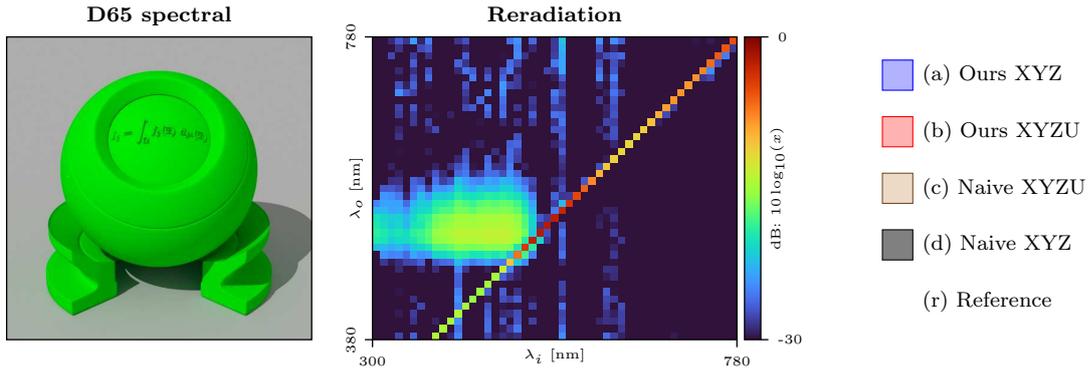
IXCCLGE



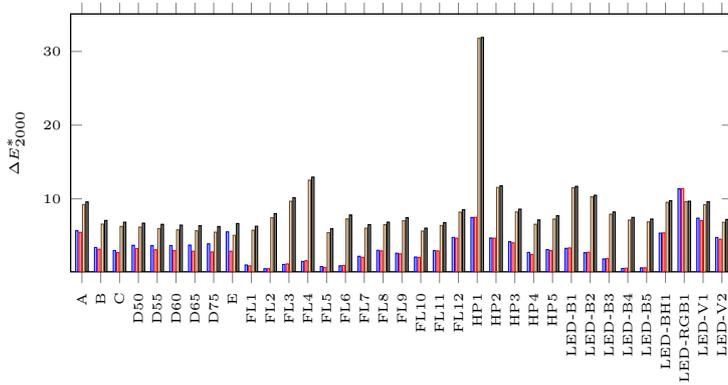
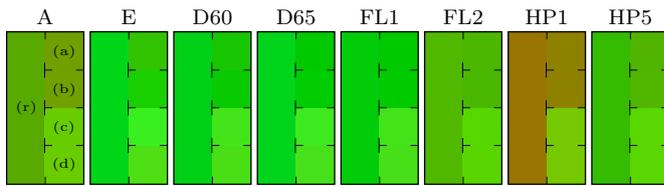
TEXTORAB



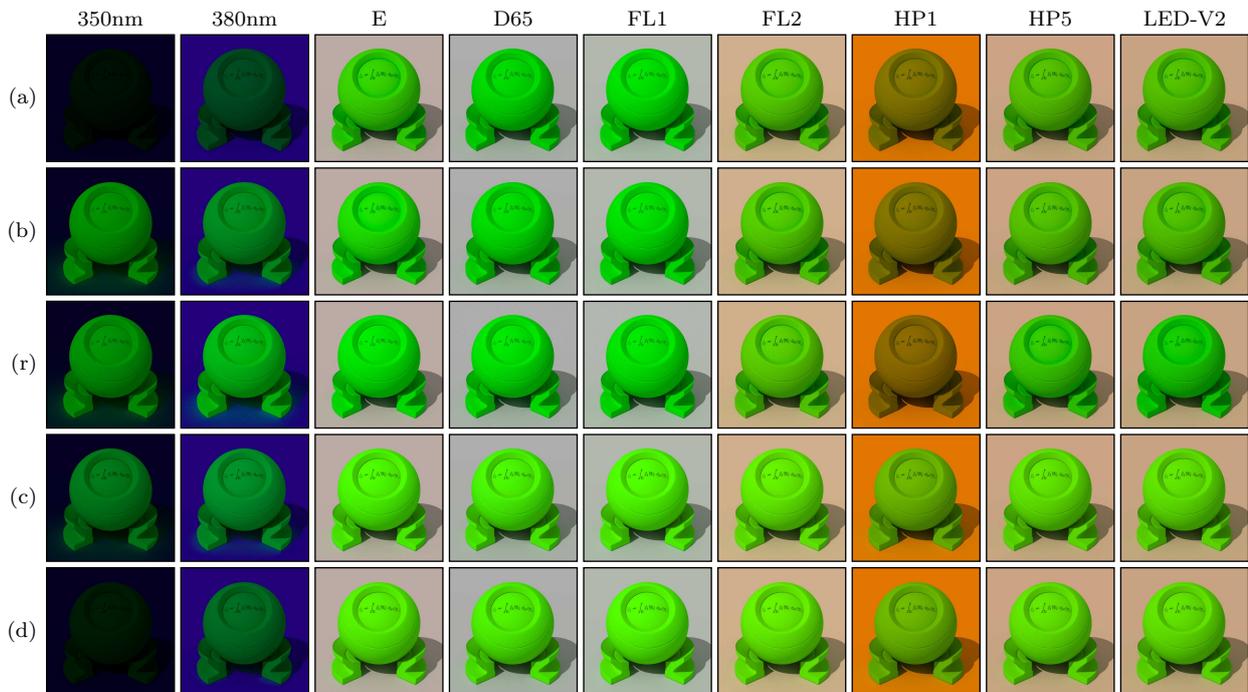
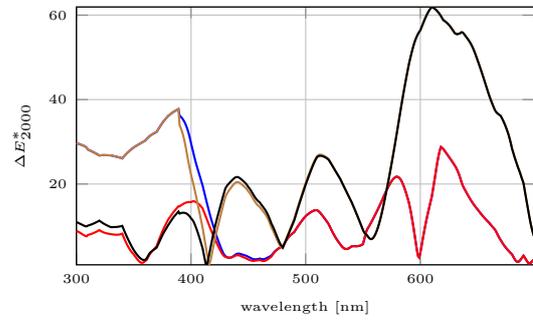
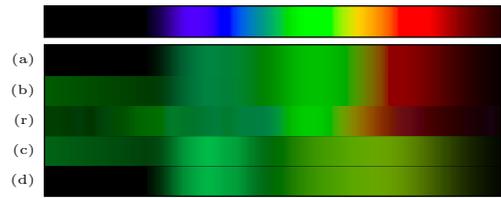
HERPIGRE



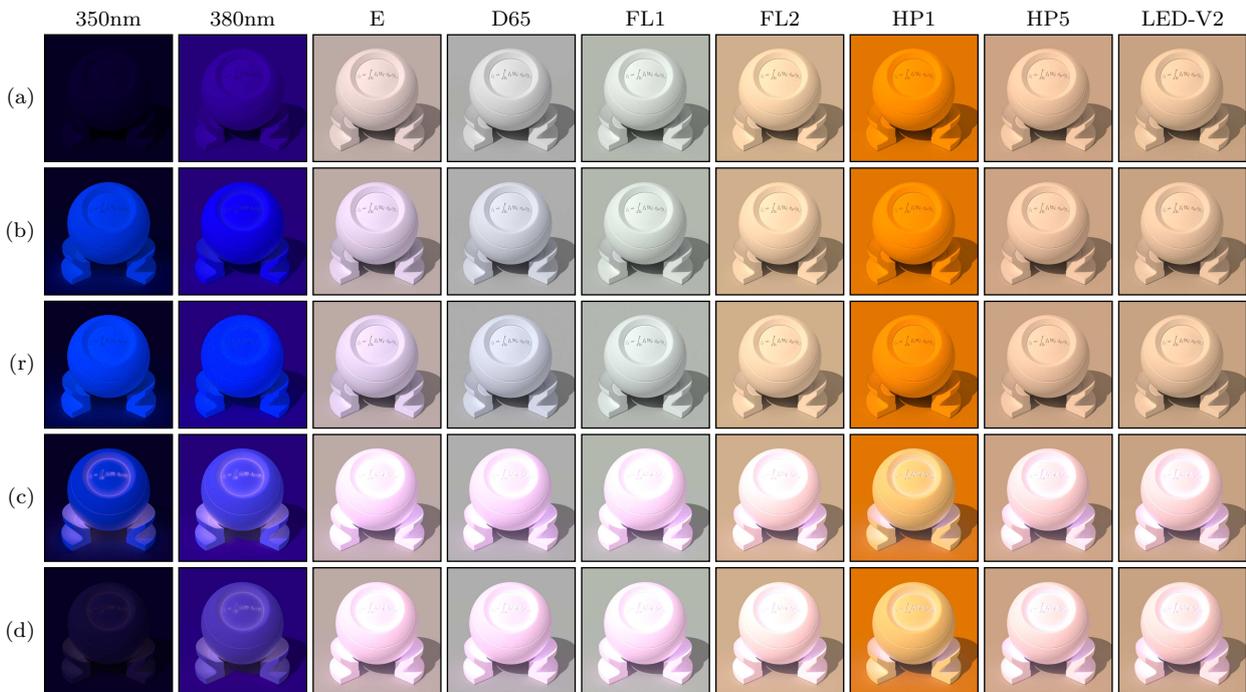
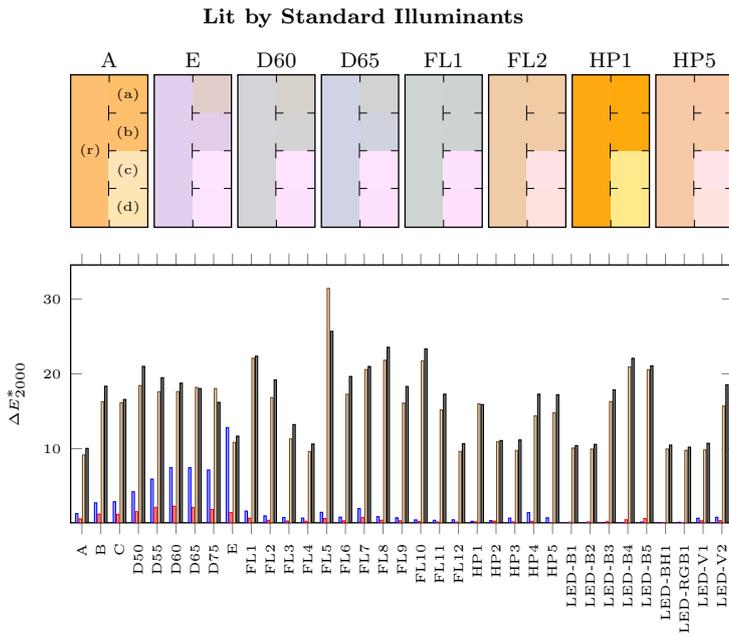
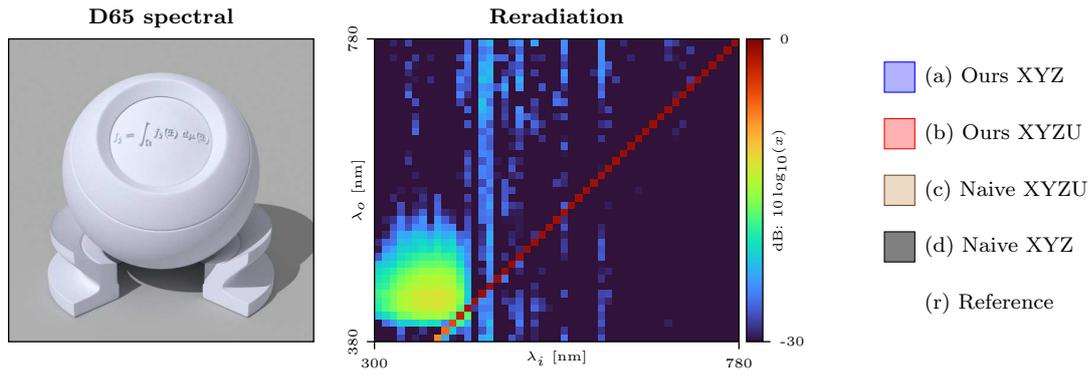
Lit by Standard Illuminants



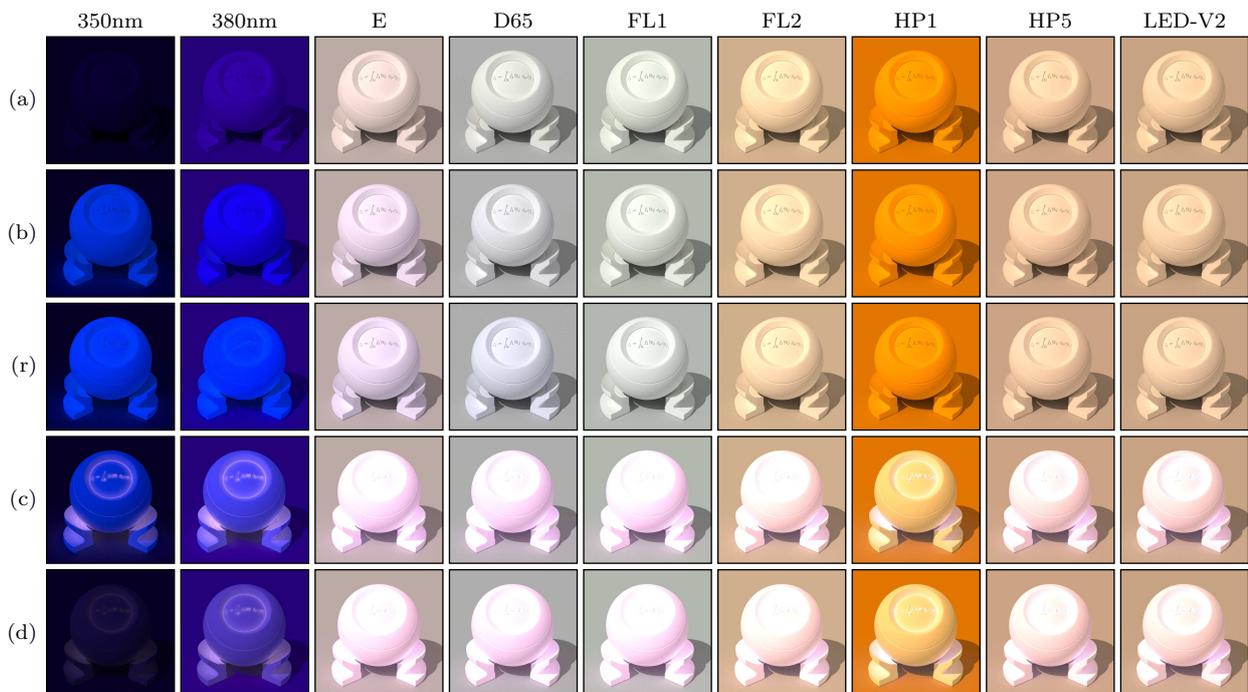
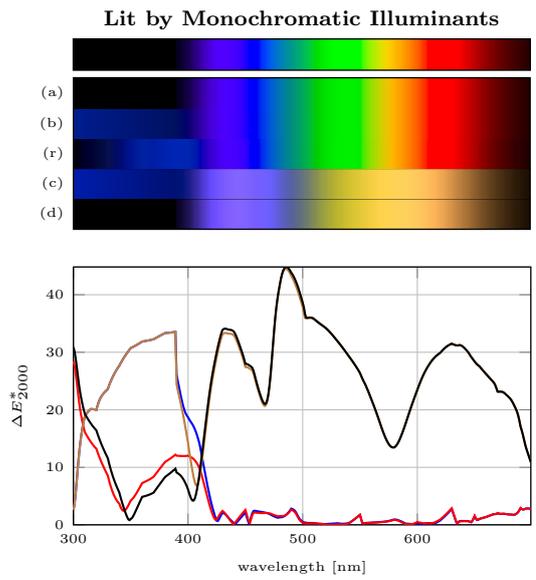
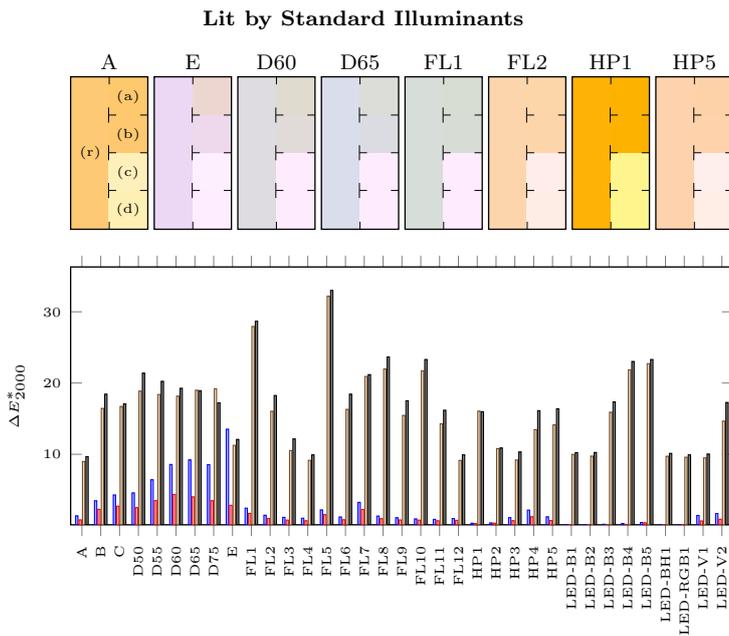
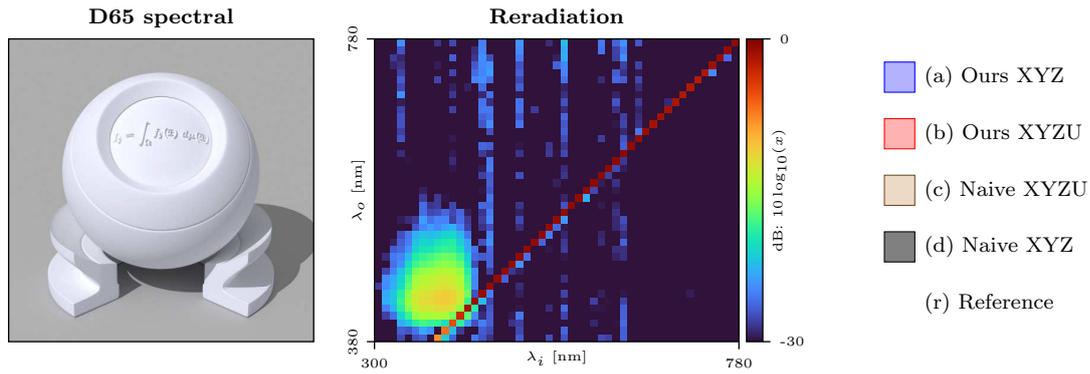
Lit by Monochromatic Illuminants



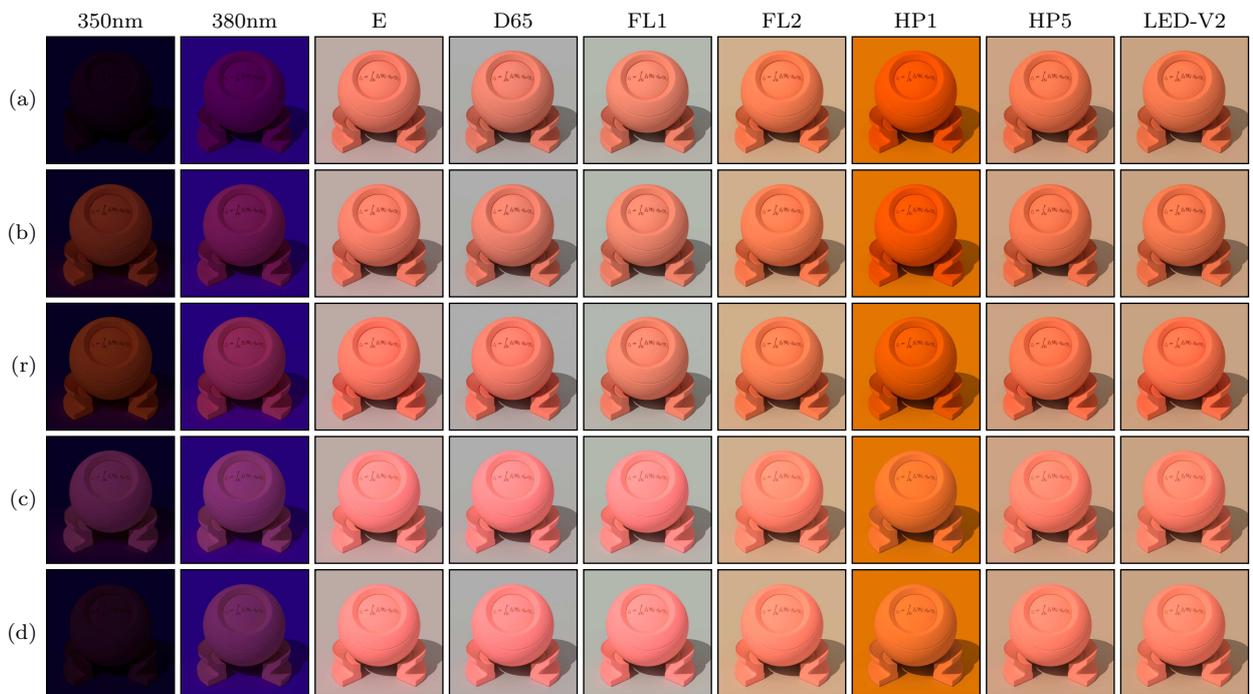
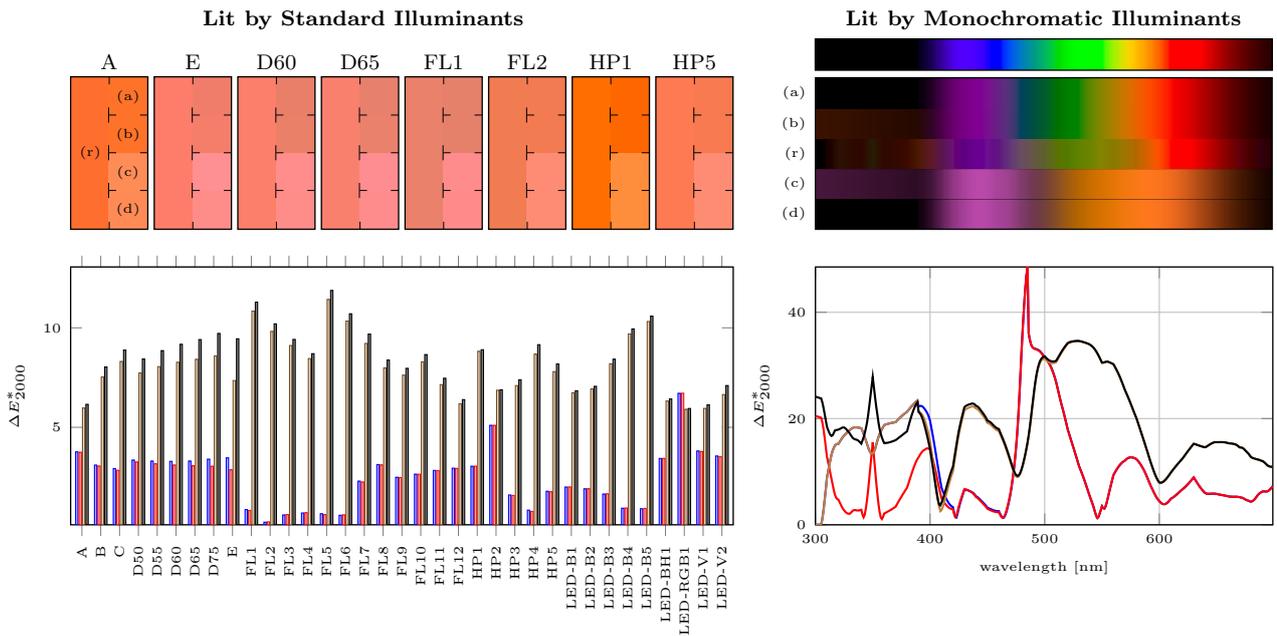
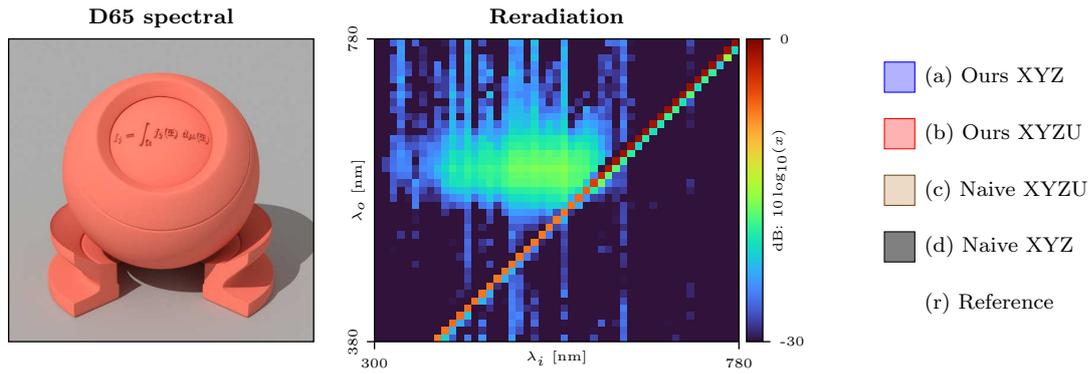
PEPWH



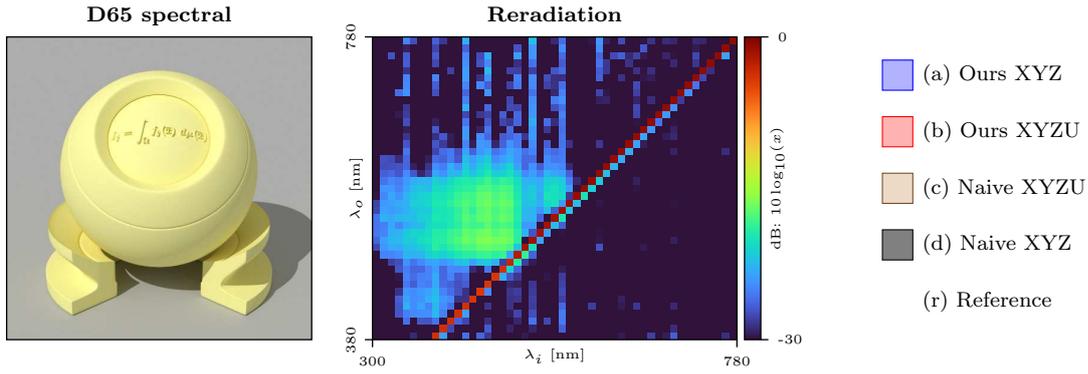
CIBA11



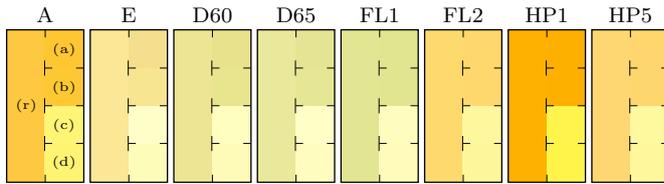
GOLFORA



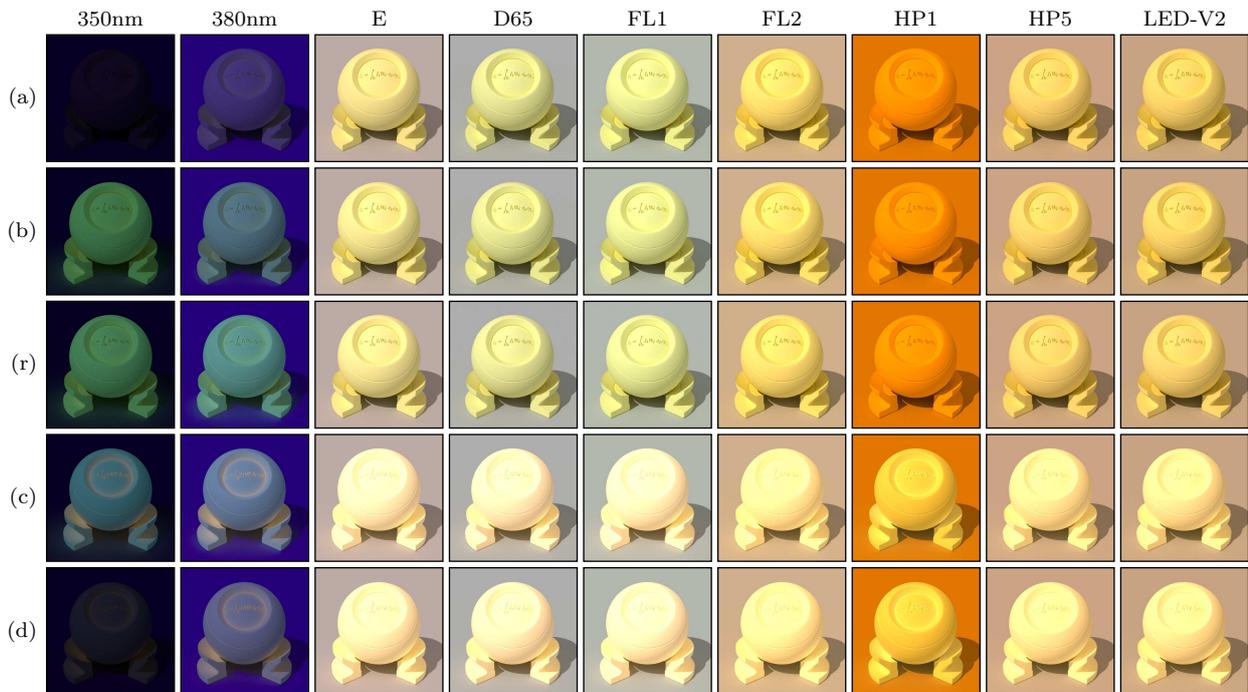
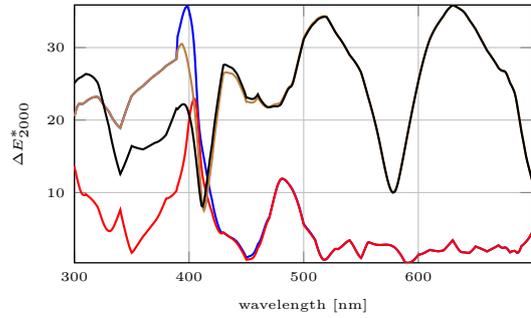
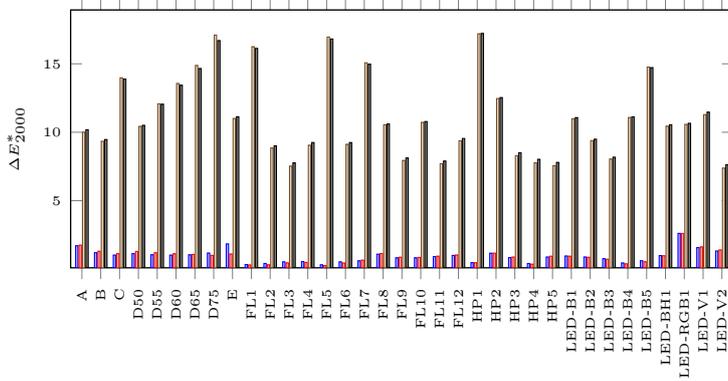
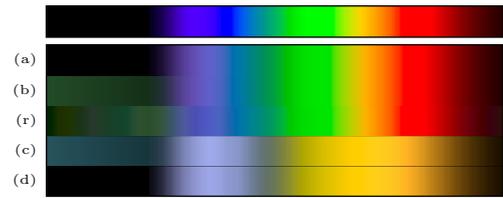
IXCRUMY



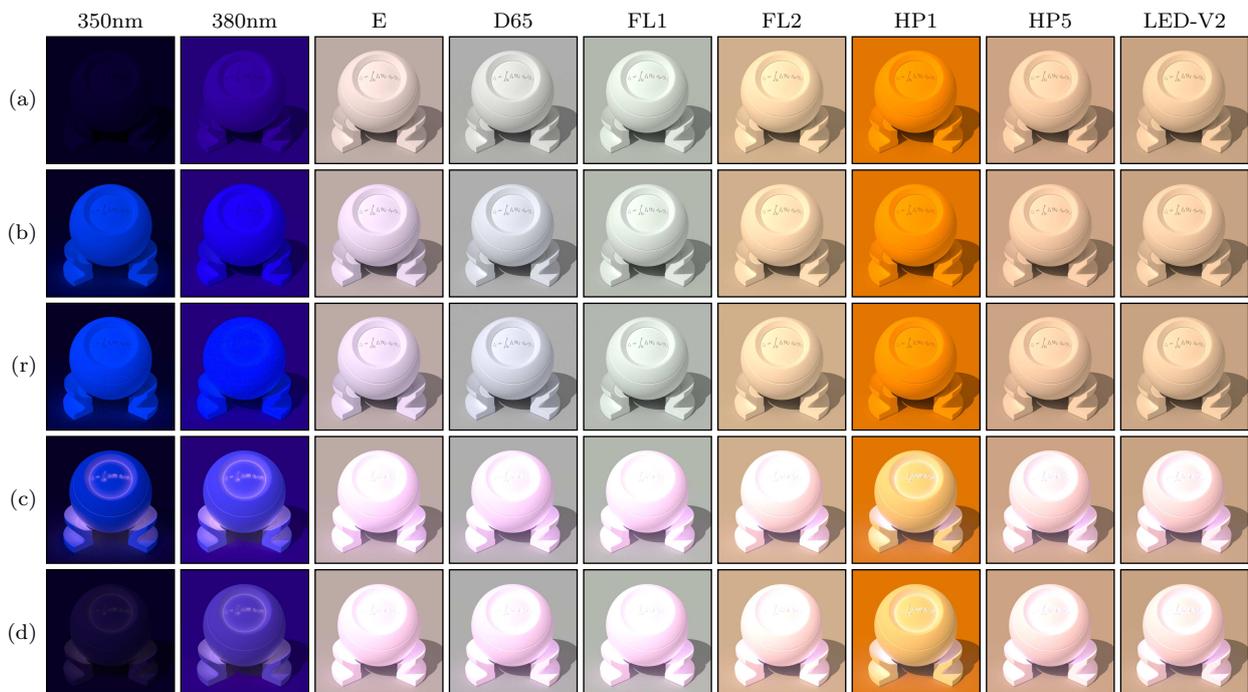
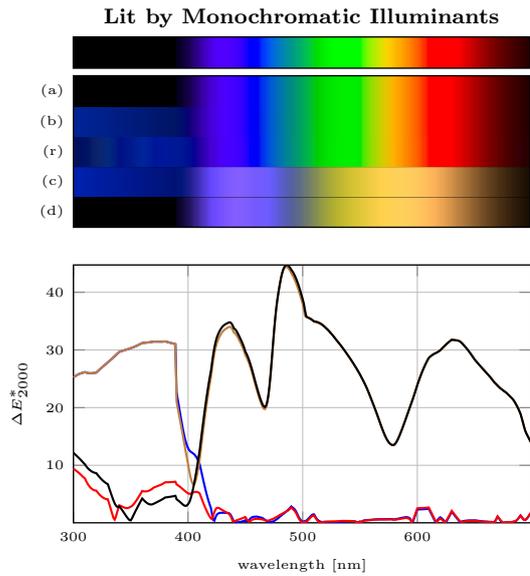
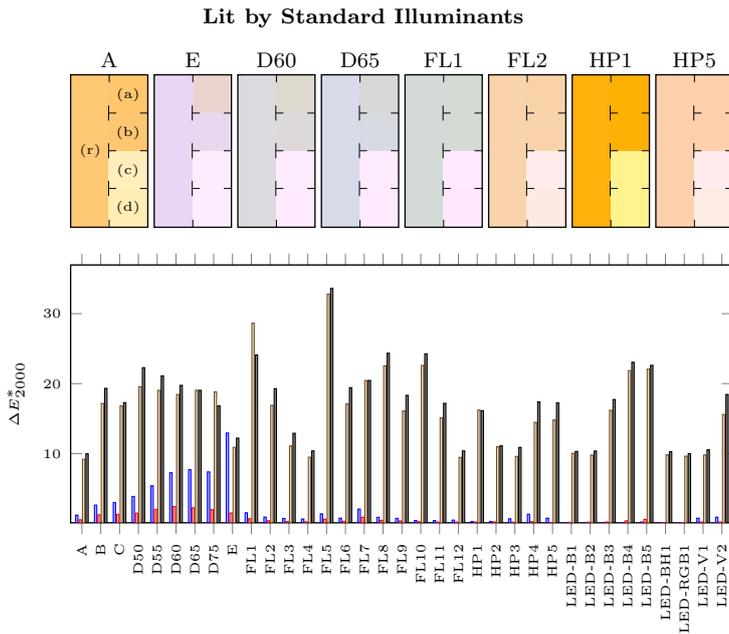
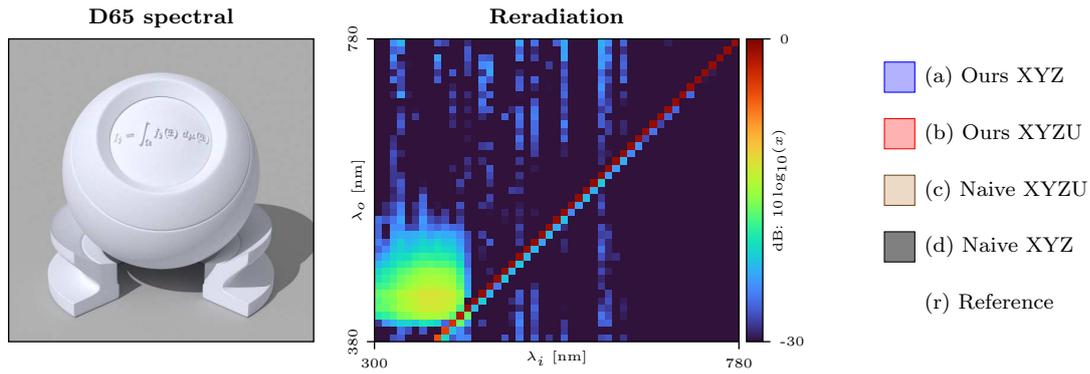
Lit by Standard Illuminants



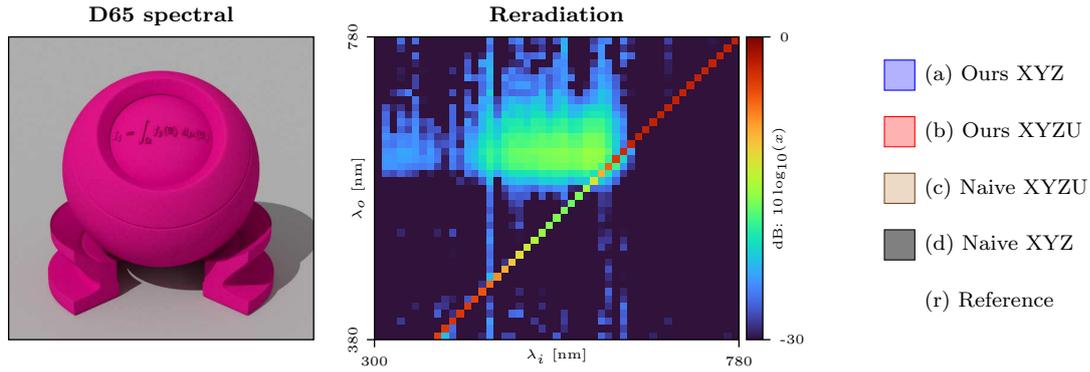
Lit by Monochromatic Illuminants



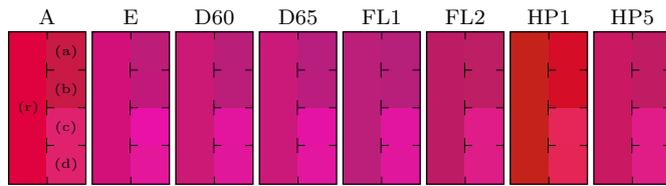
PHP8RVWH



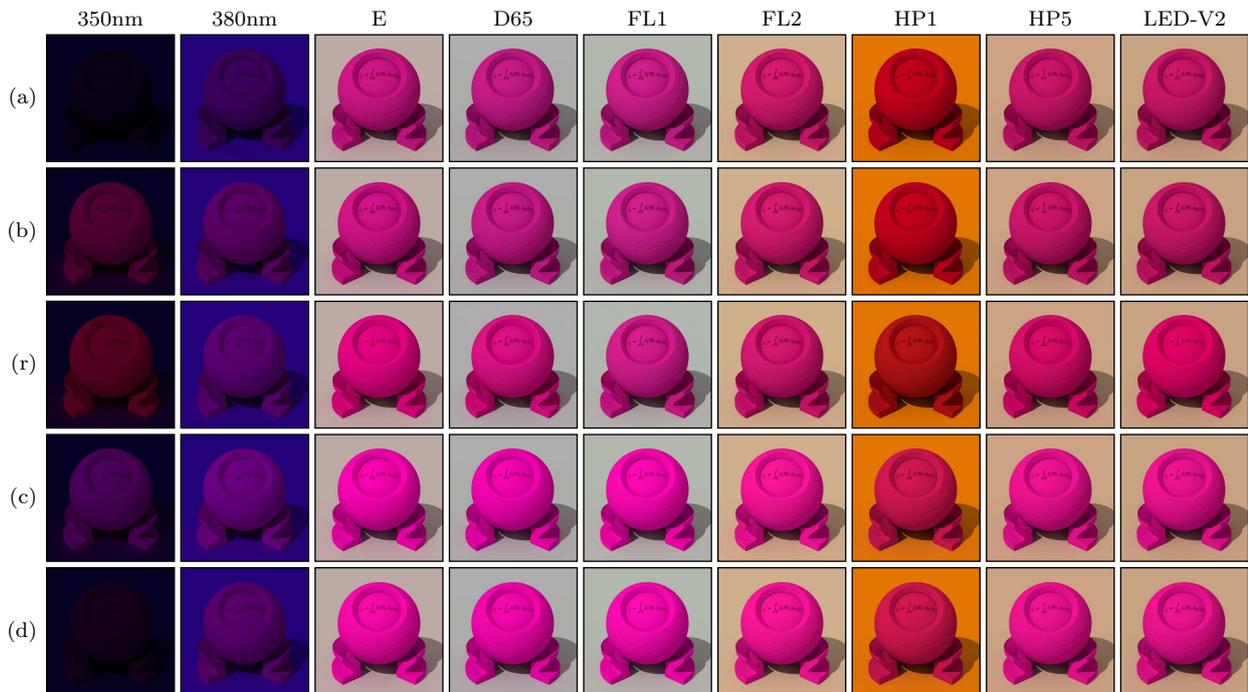
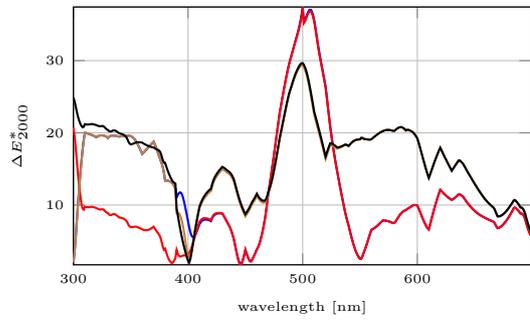
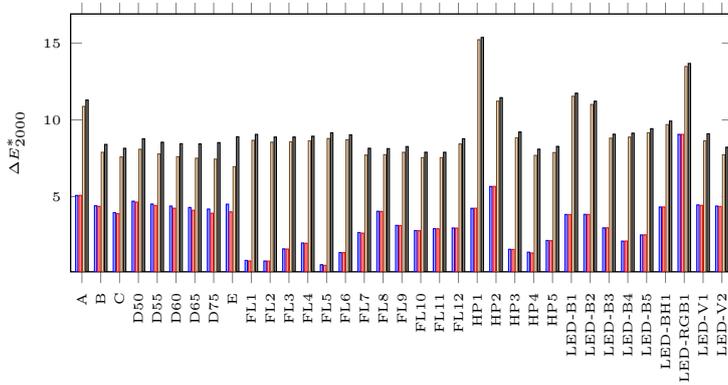
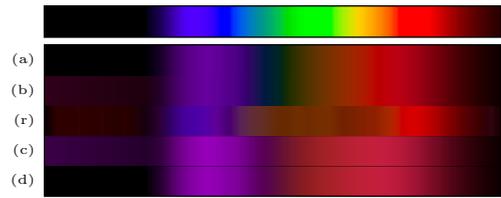
TEXTMAGC



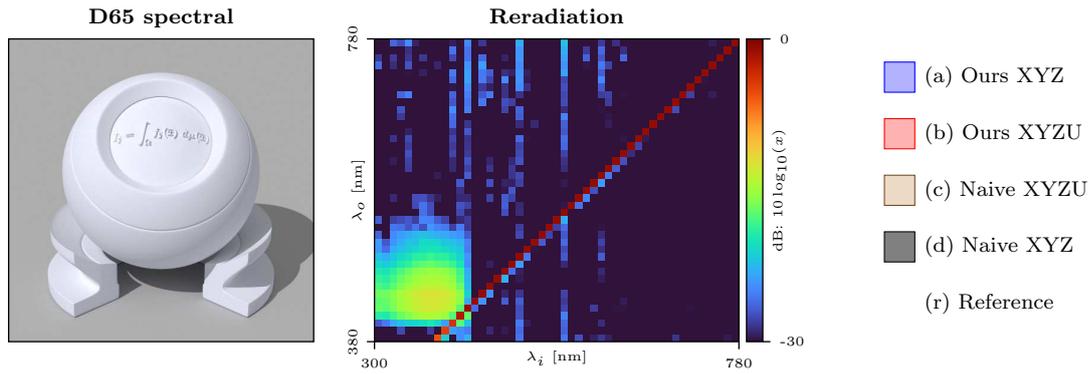
Lit by Standard Illuminants



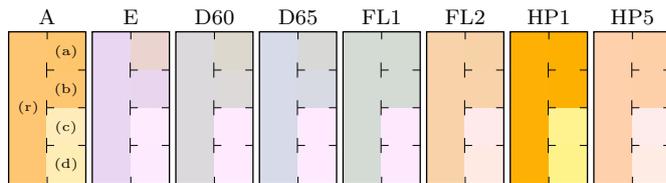
Lit by Monochromatic Illuminants



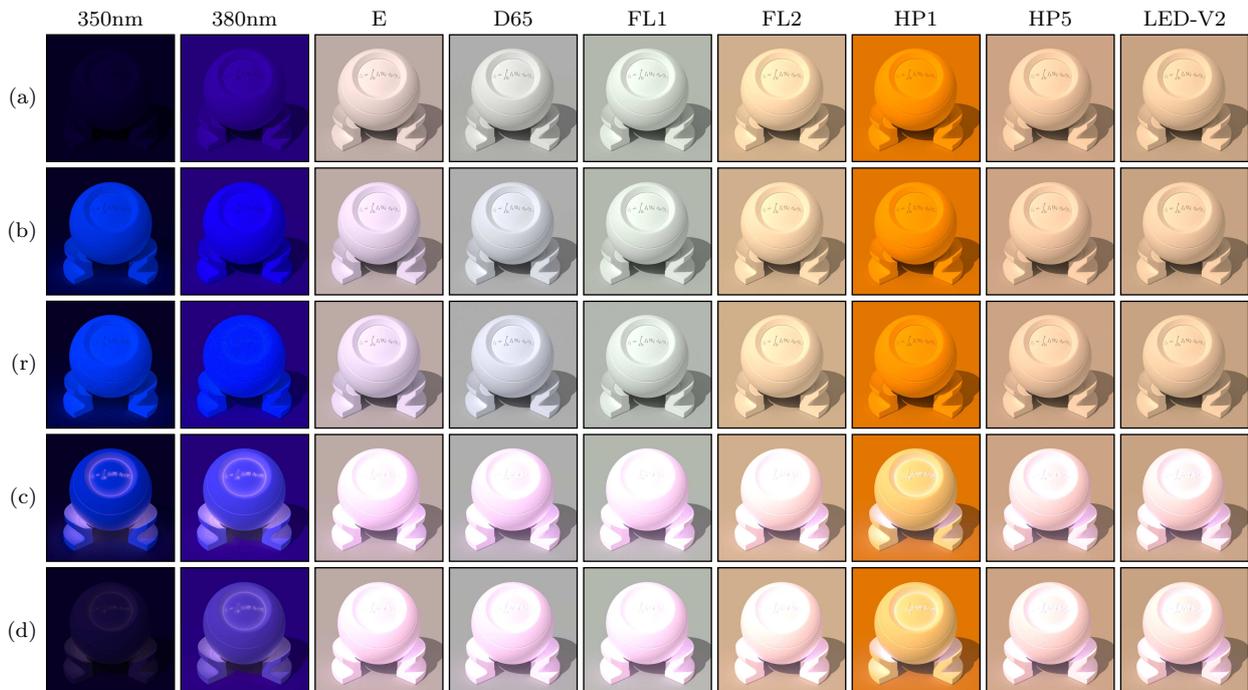
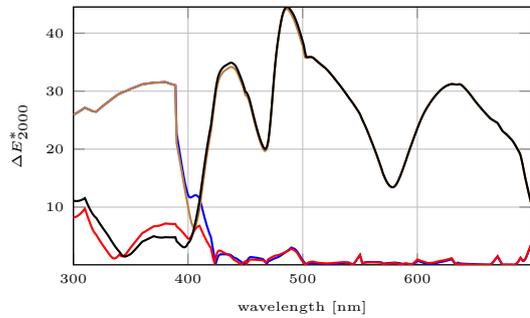
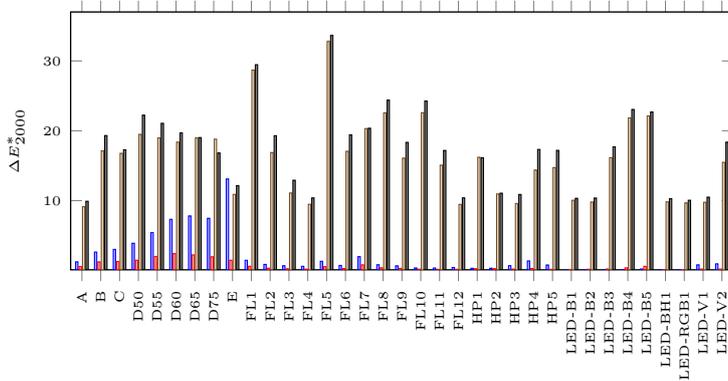
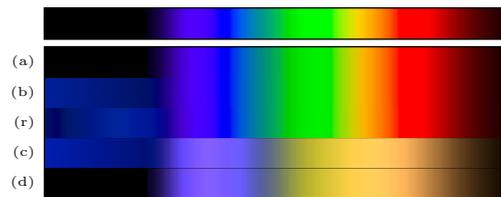
PXEROWHR



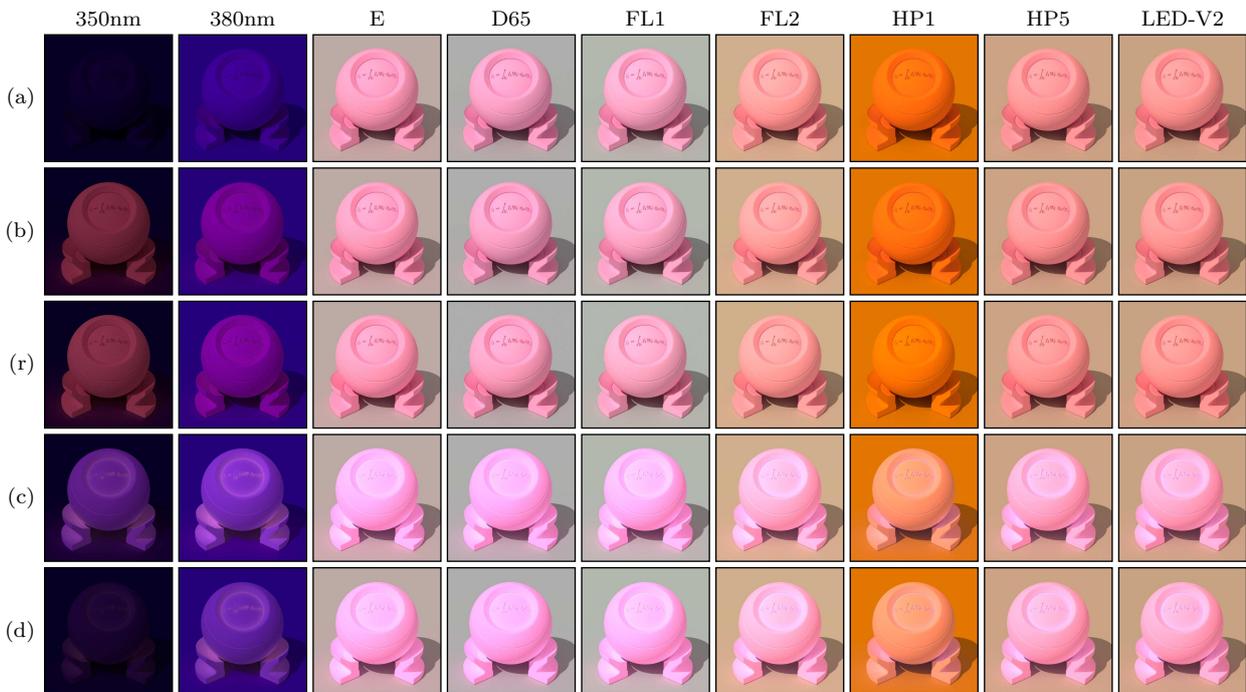
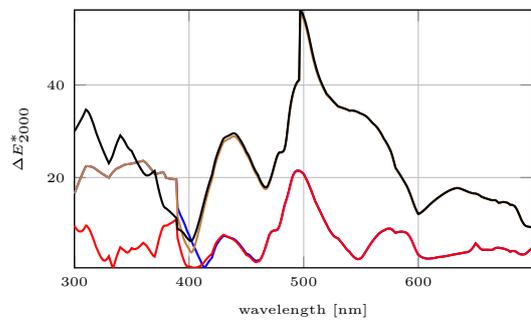
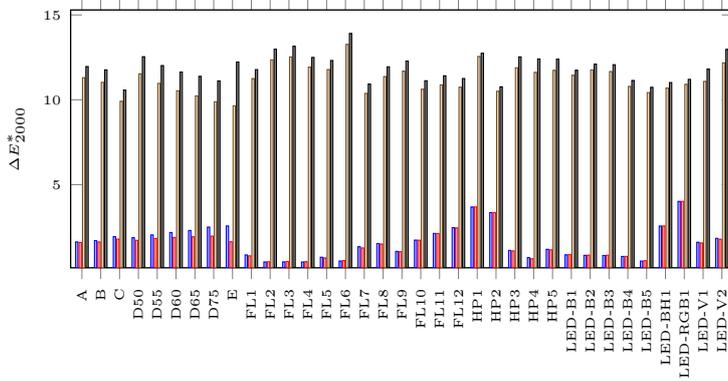
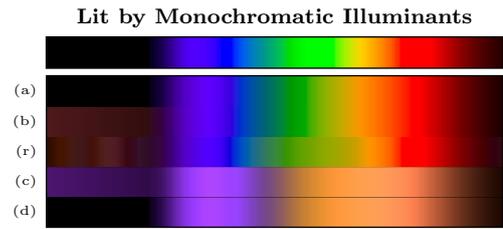
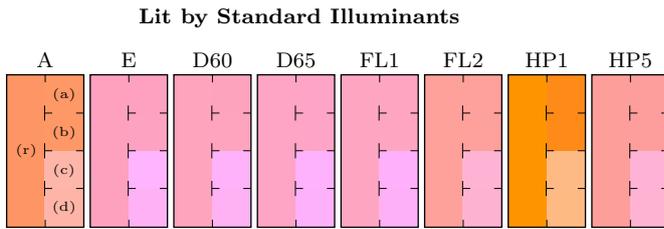
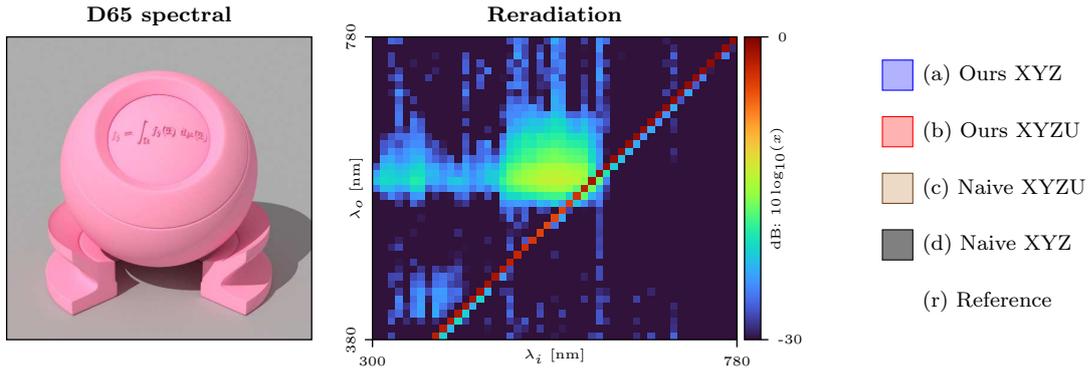
Lit by Standard Illuminants



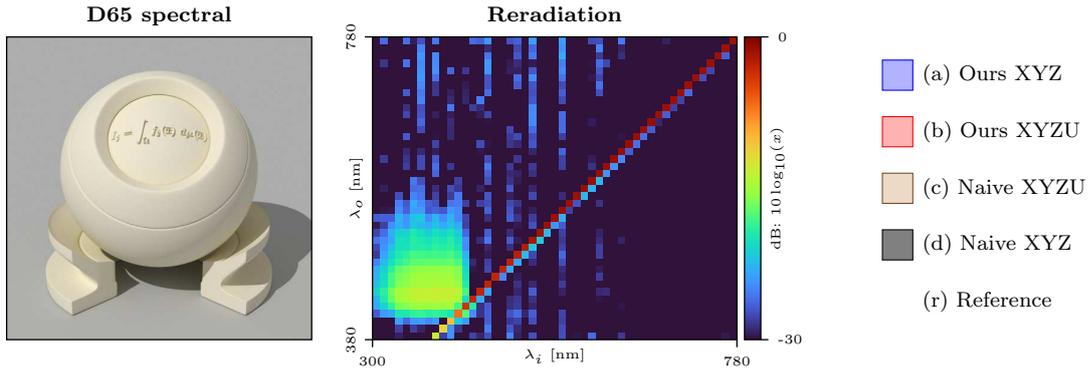
Lit by Monochromatic Illuminants



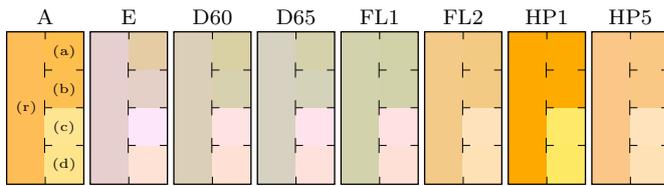
IXCSHPIN



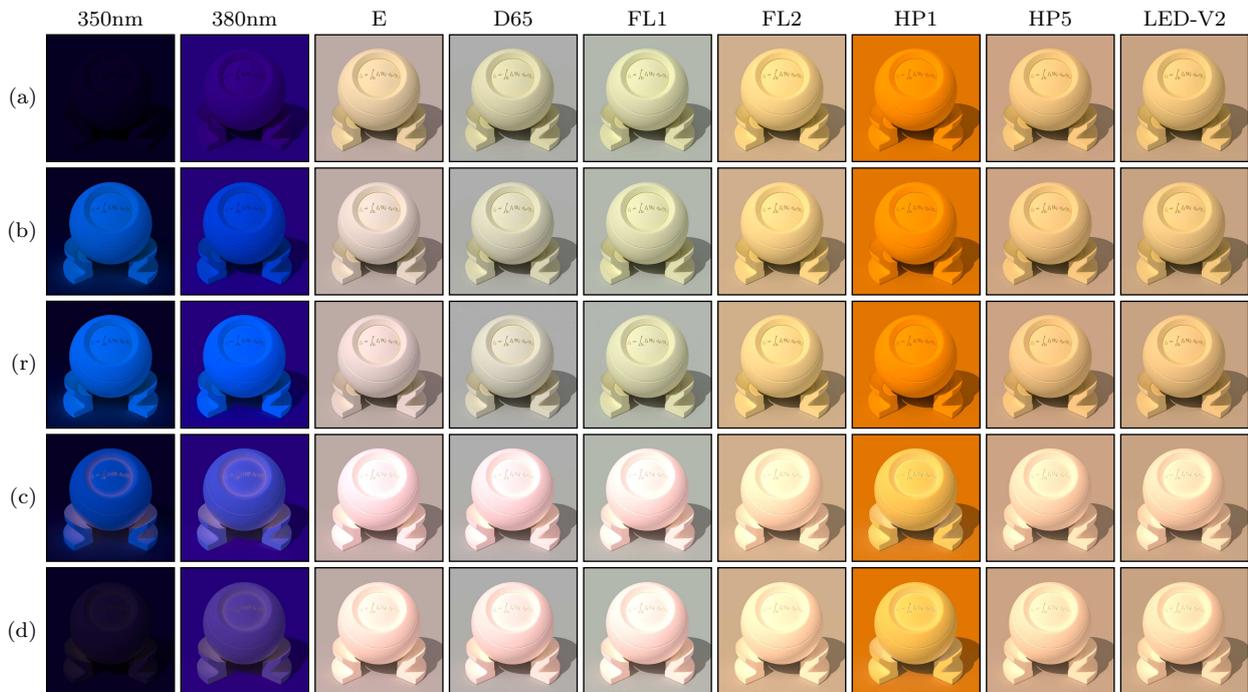
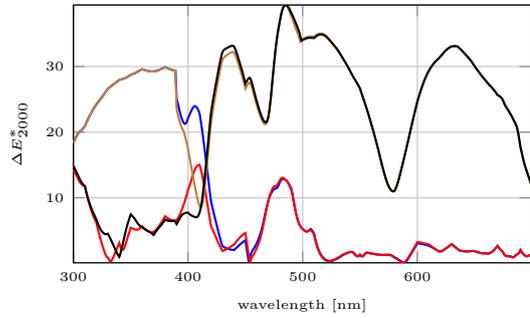
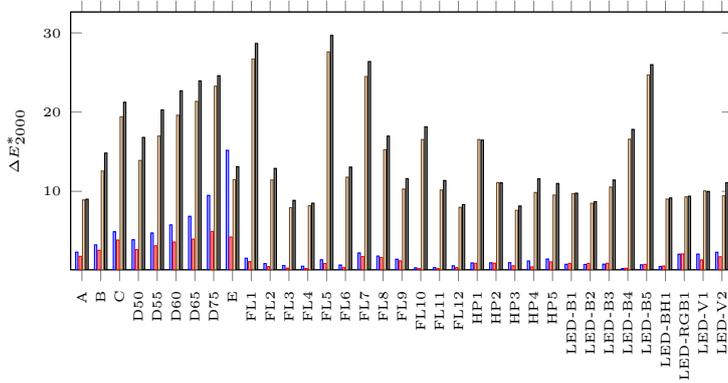
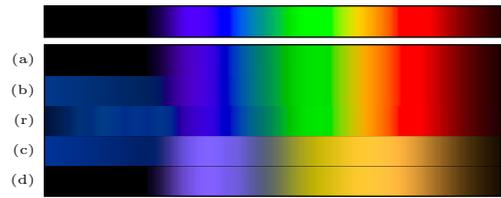
PHP8HP5Y



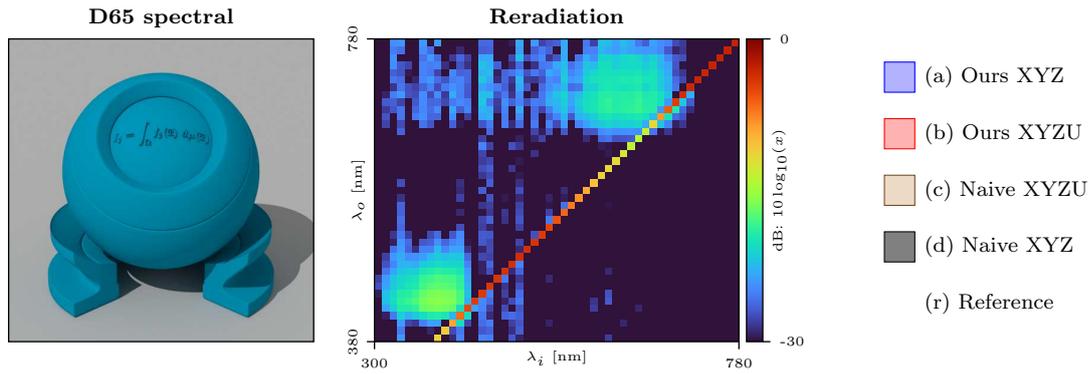
Lit by Standard Illuminants



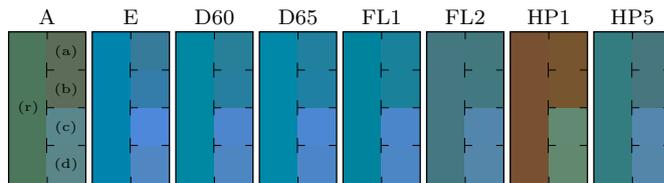
Lit by Monochromatic Illuminants



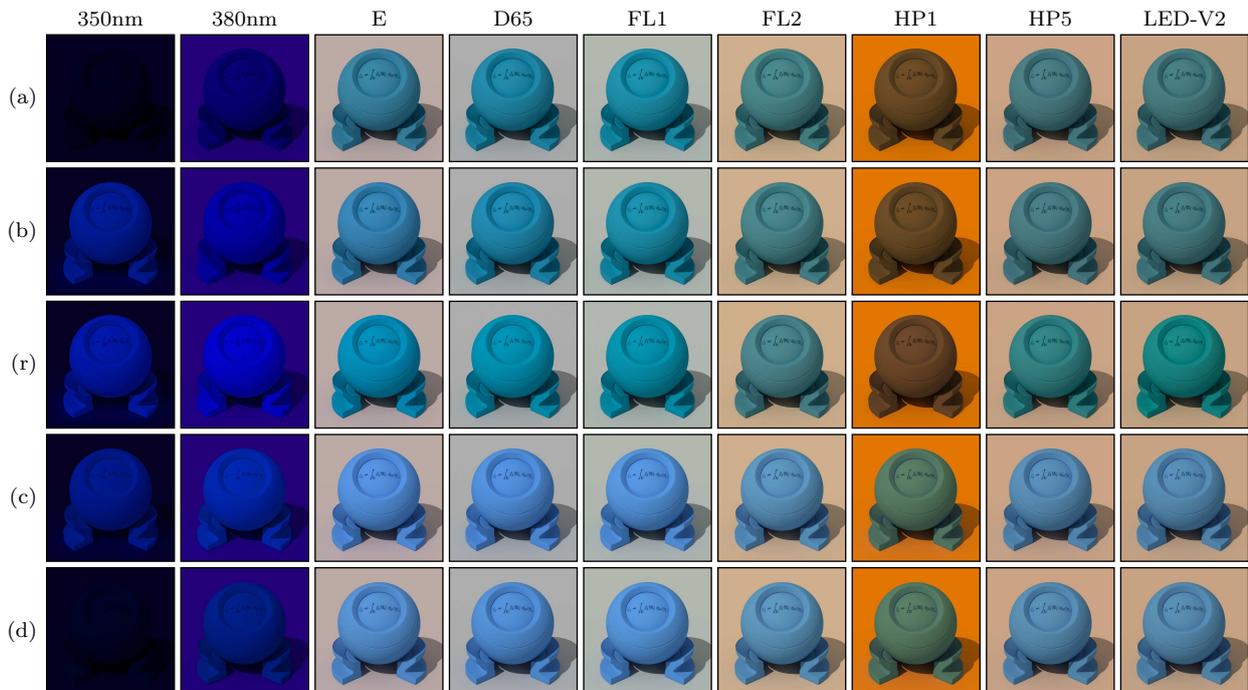
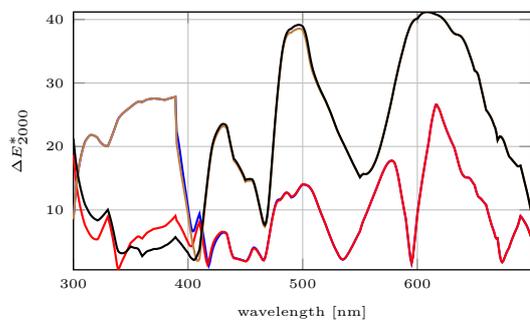
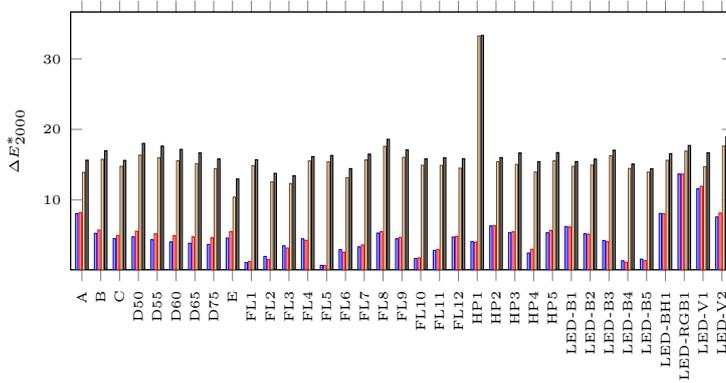
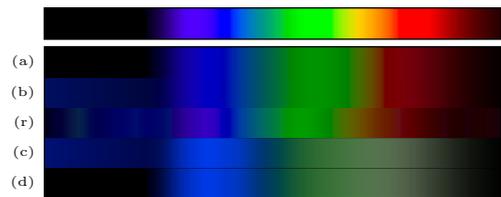
TEXTBLUE



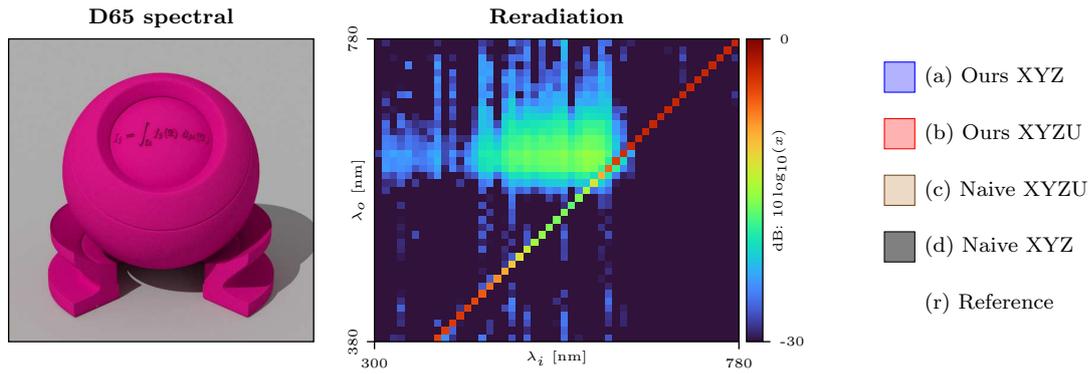
Lit by Standard Illuminants



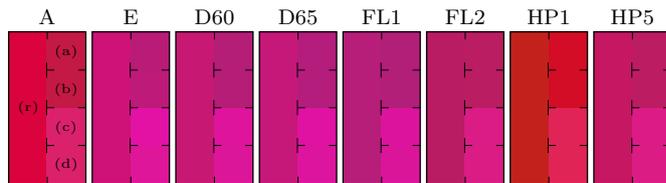
Lit by Monochromatic Illuminants



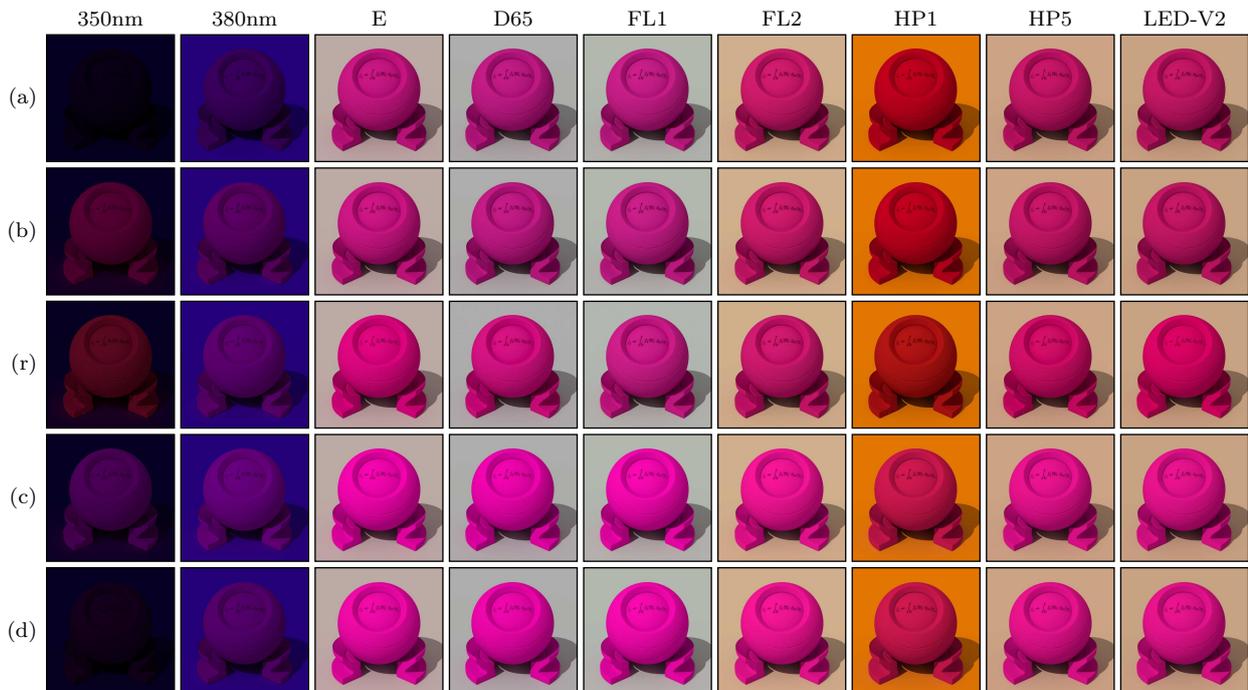
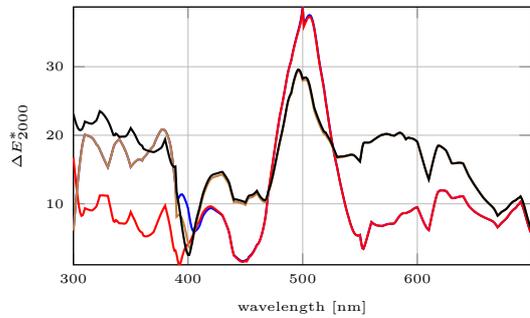
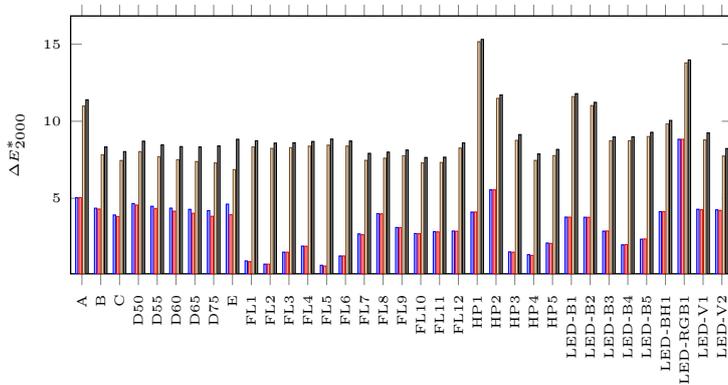
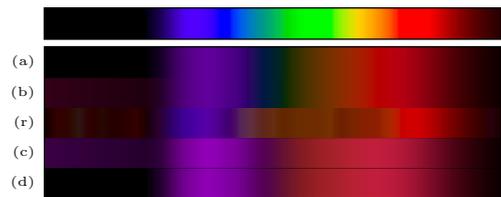
TEXTMAGU



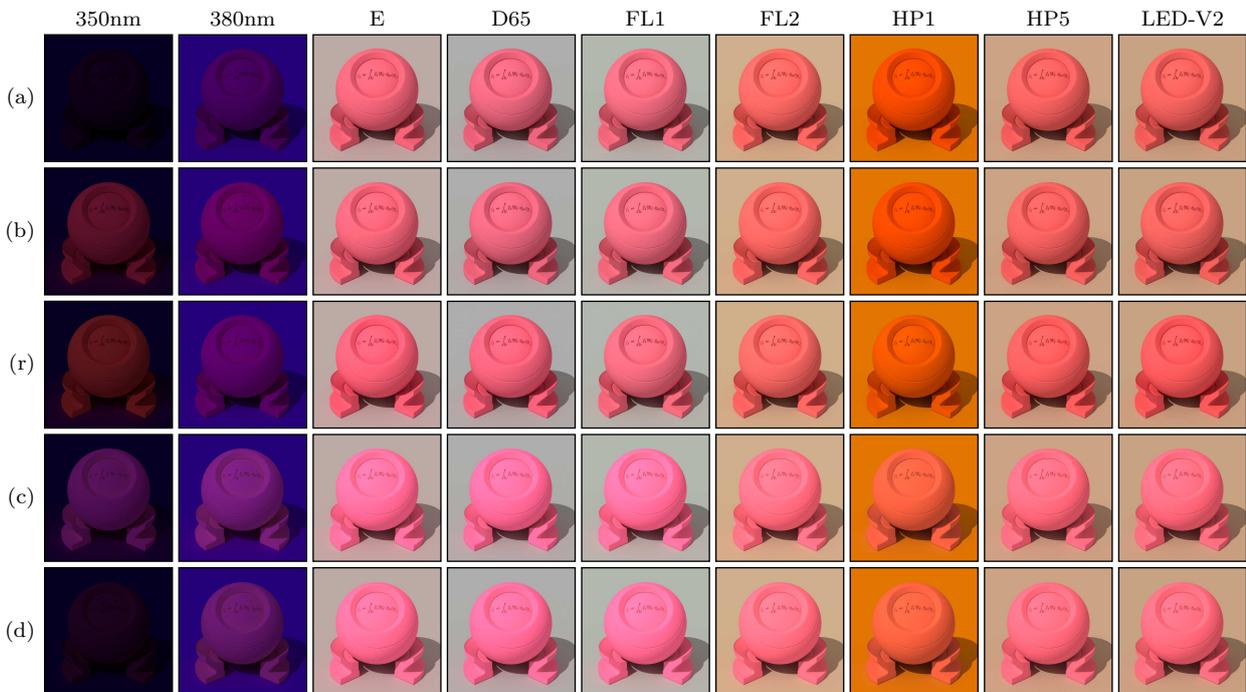
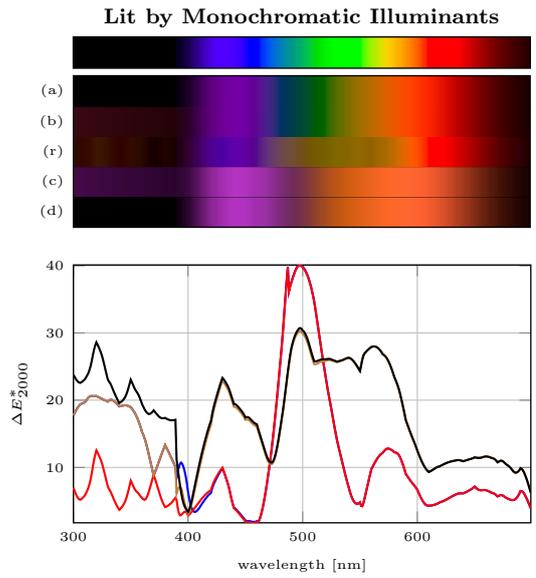
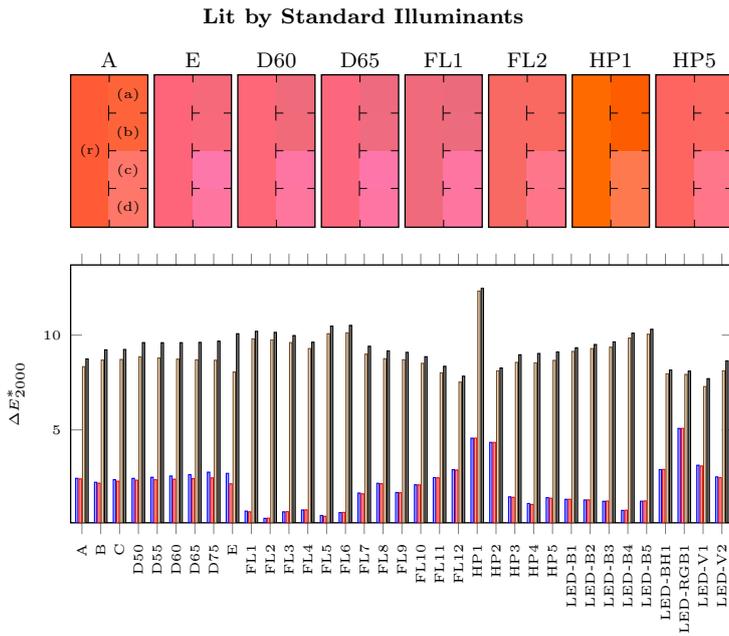
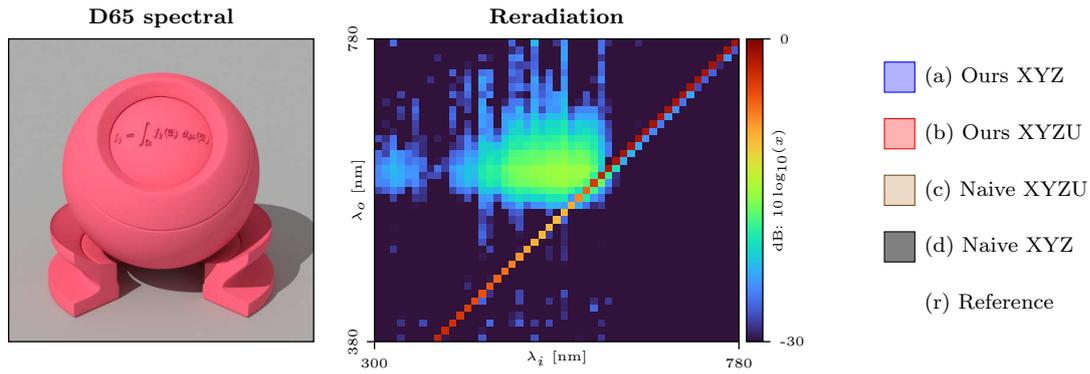
Lit by Standard Illuminants



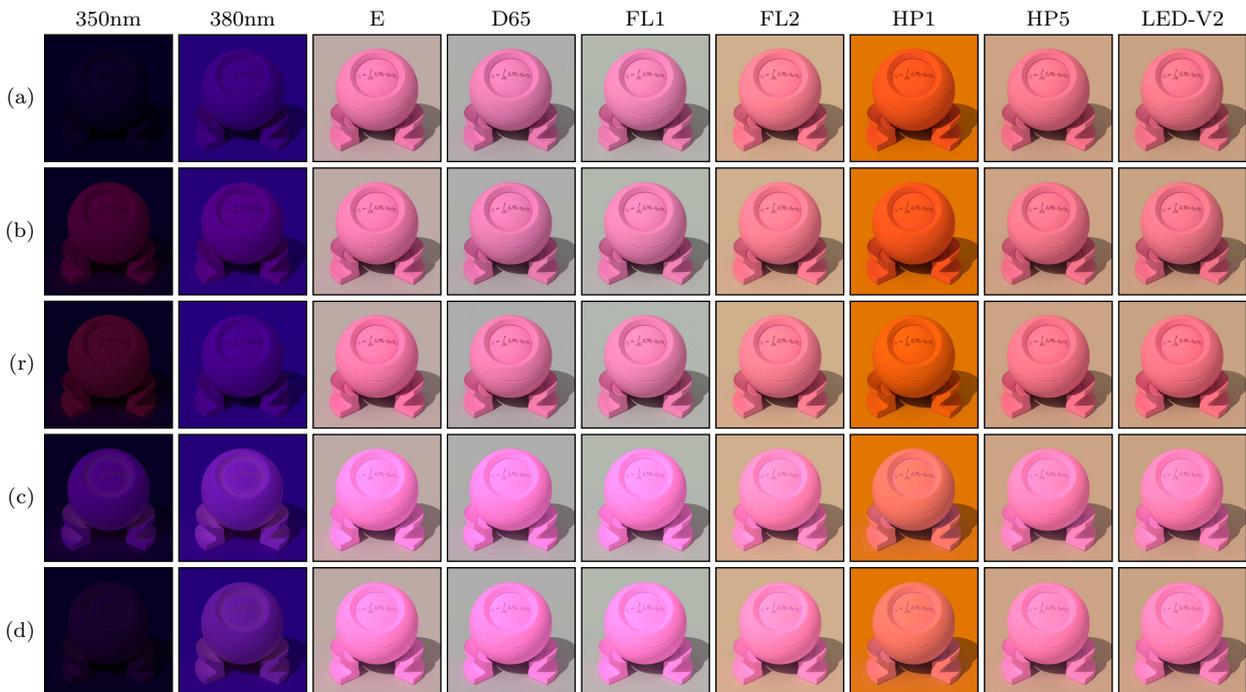
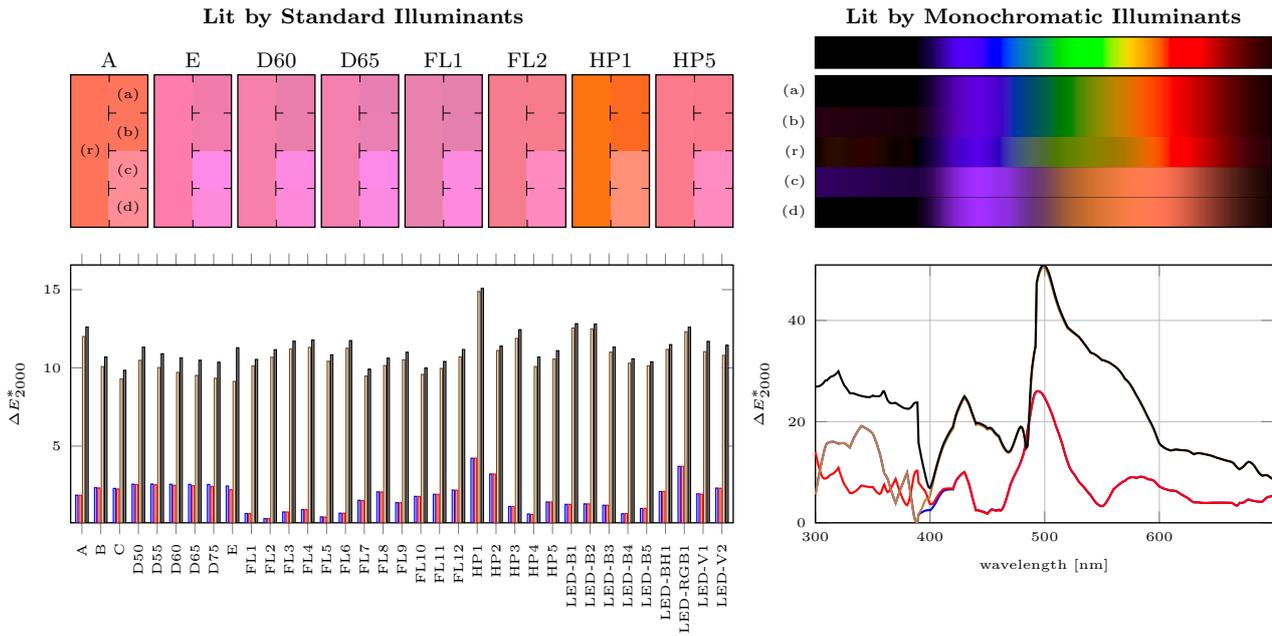
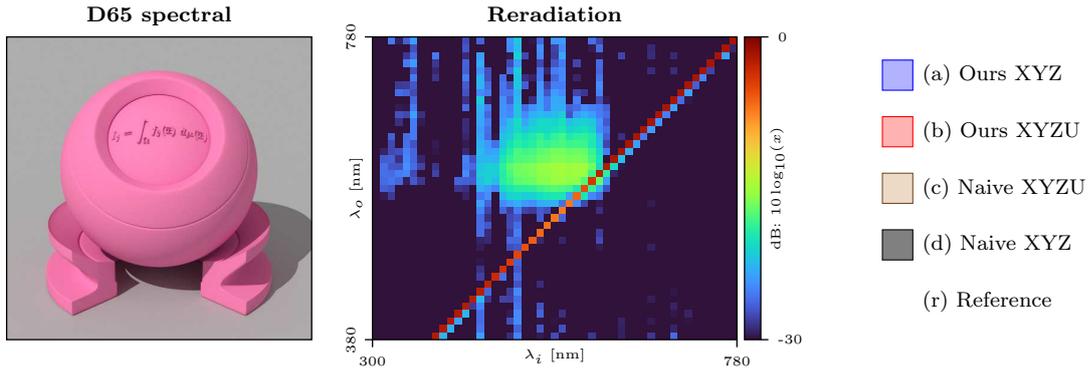
Lit by Monochromatic Illuminants



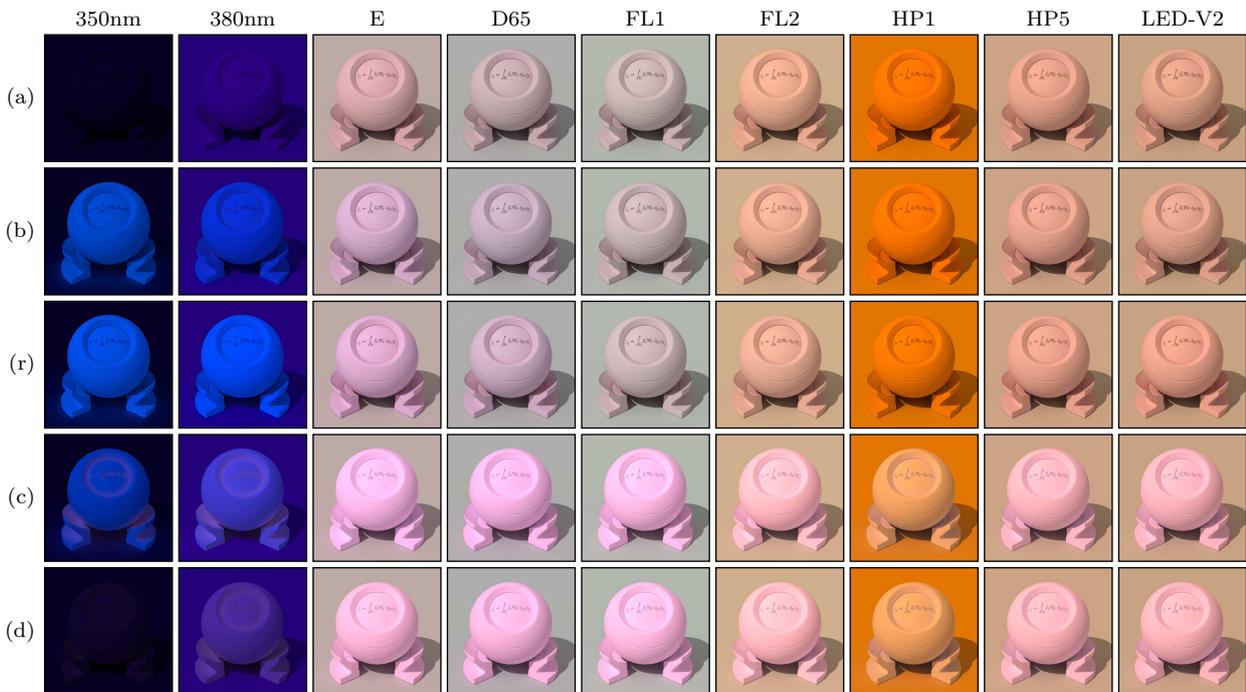
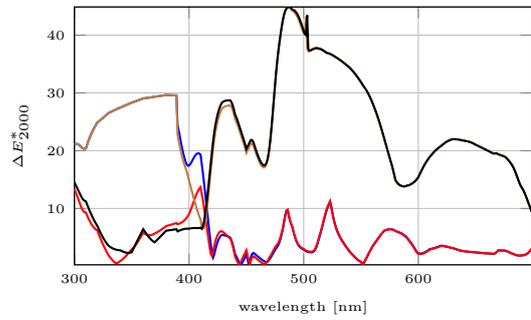
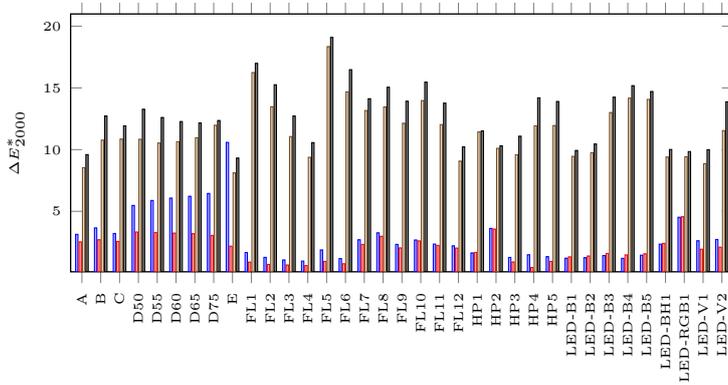
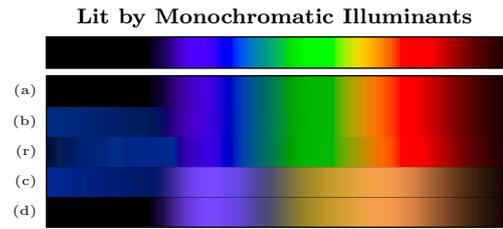
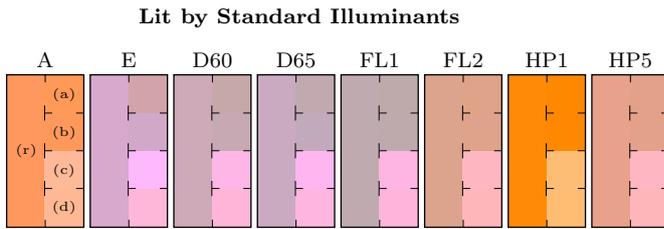
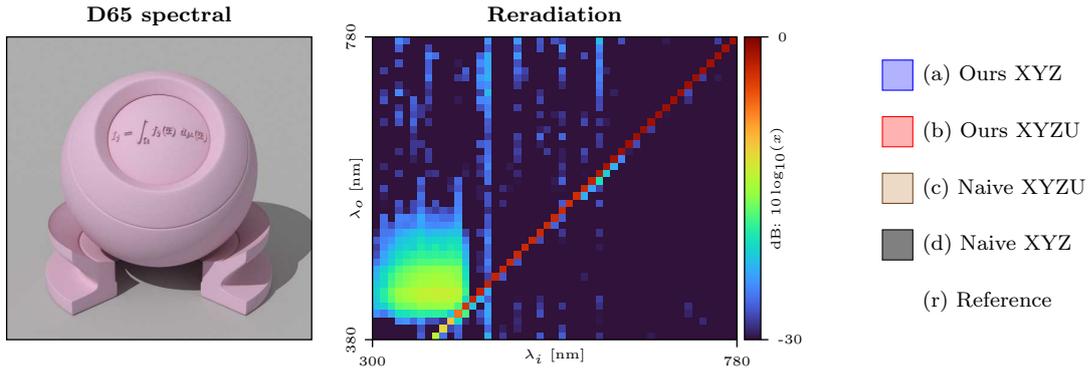
PAPRED



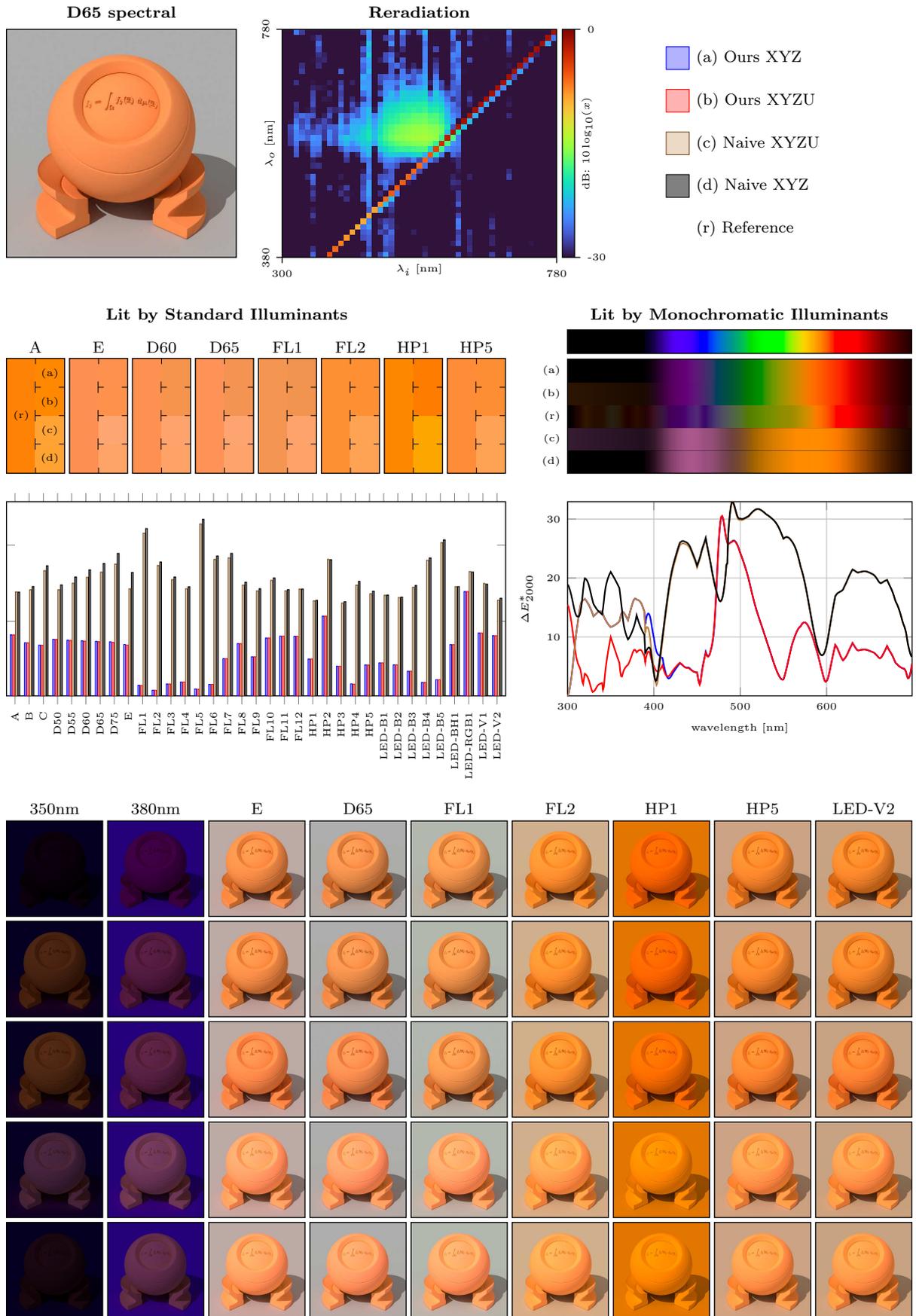
PAPMAG



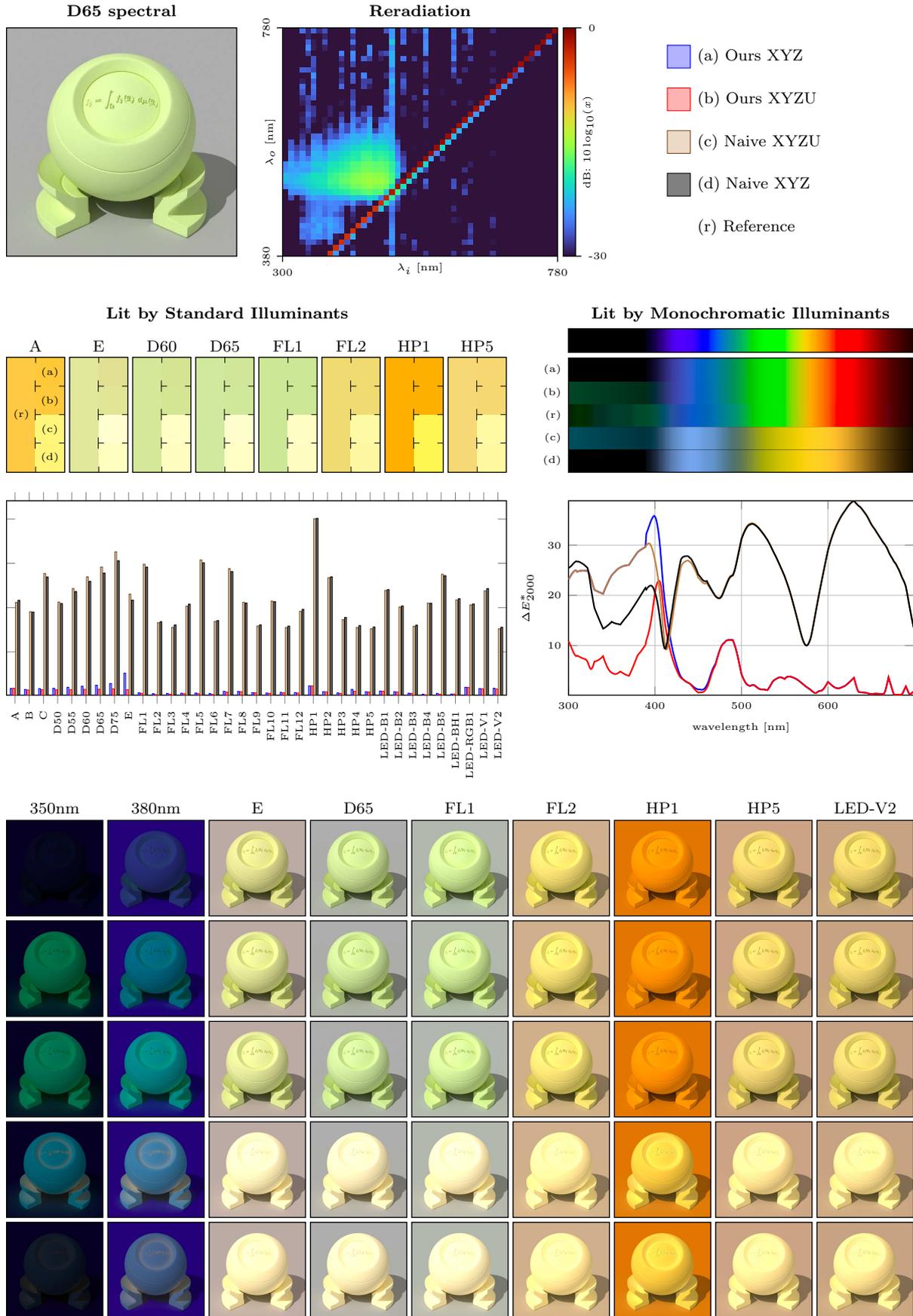
PHP8HP5M



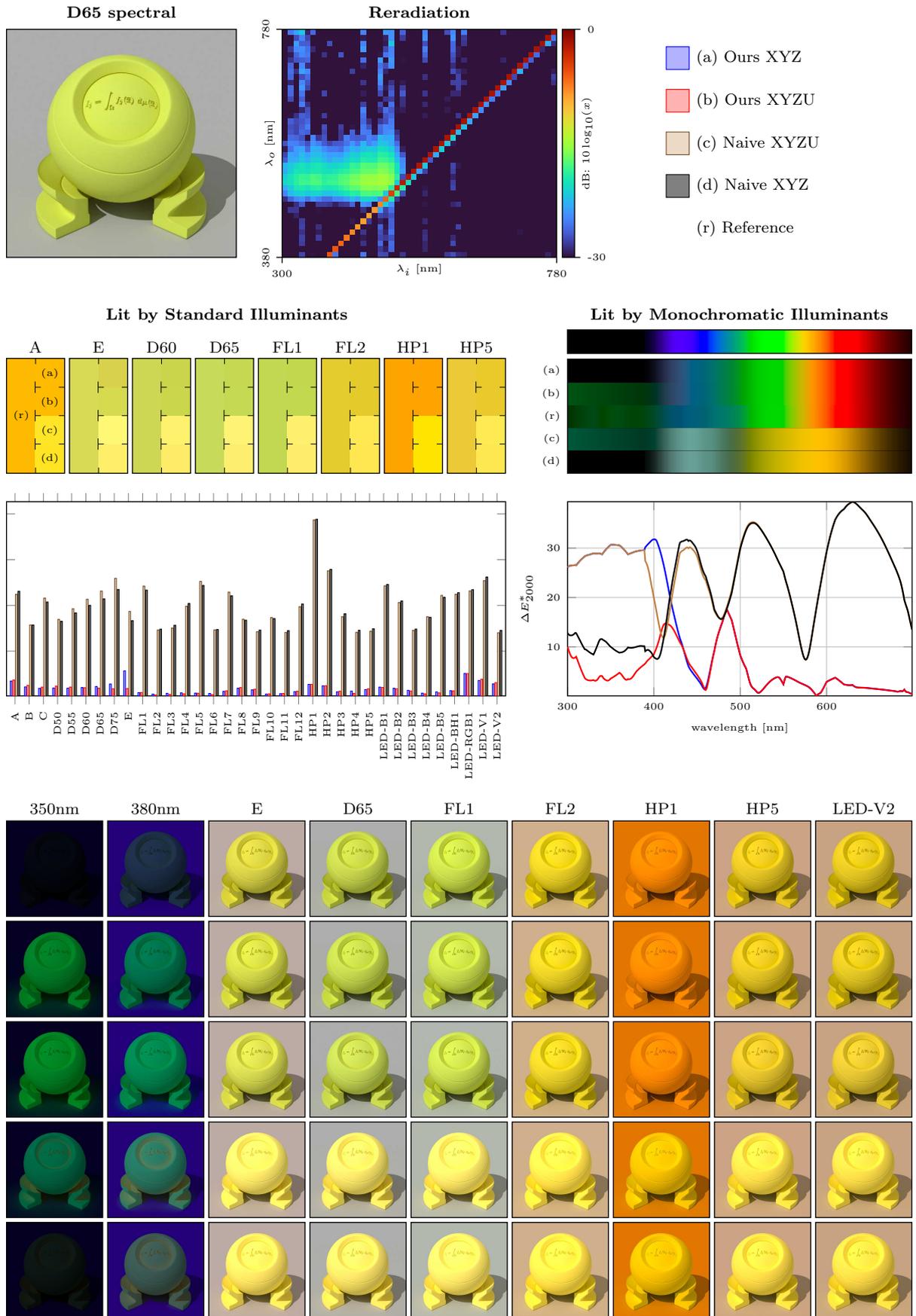
PAPORAN



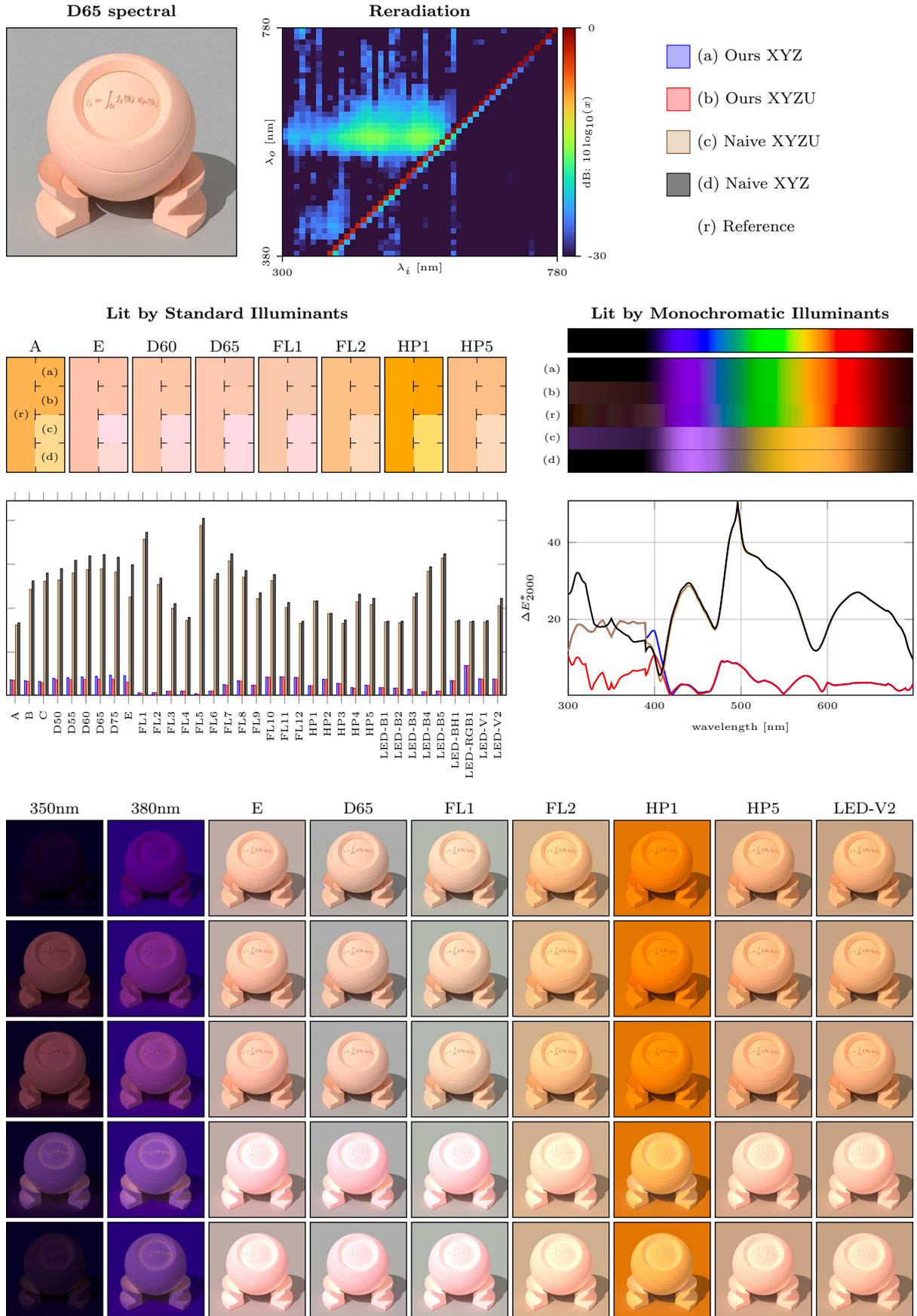
IXCELLIM



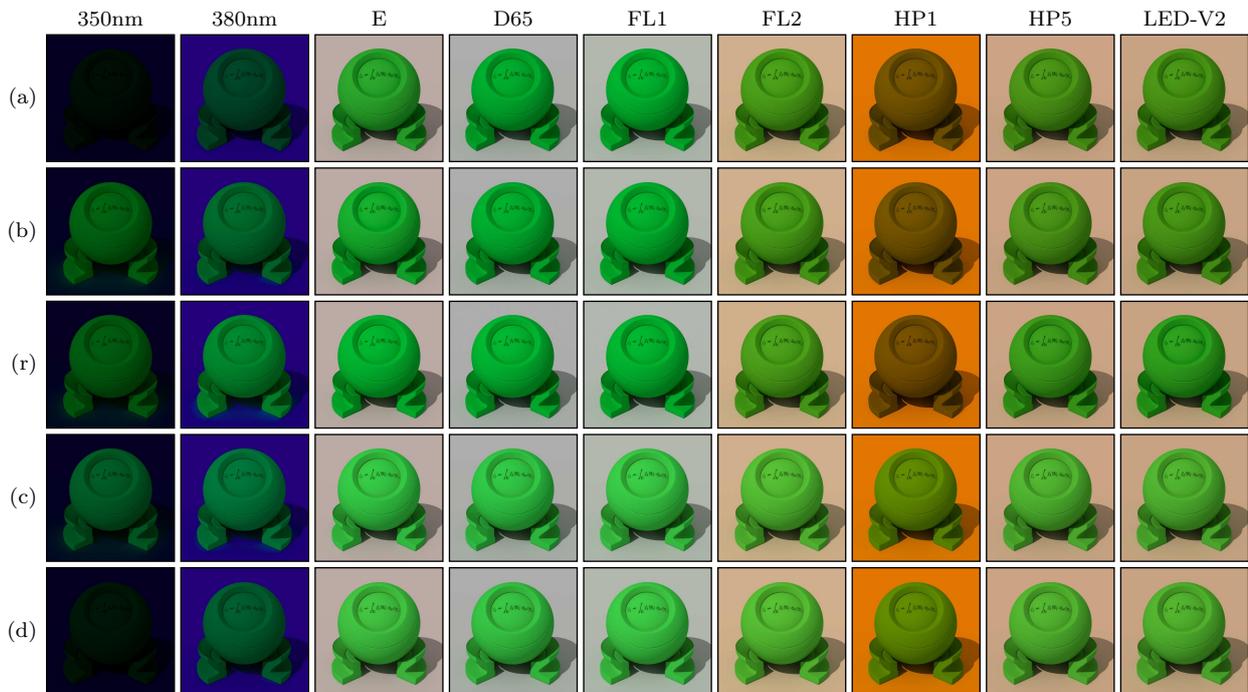
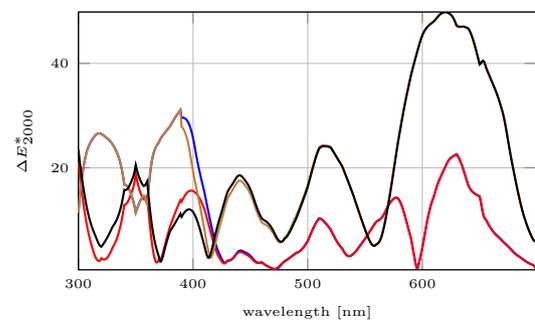
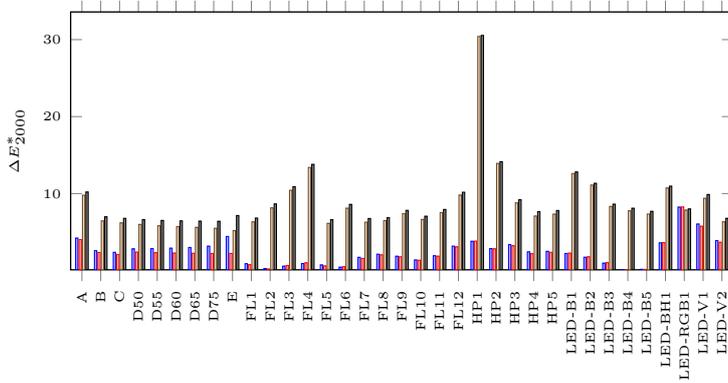
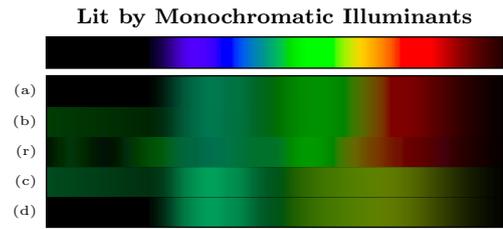
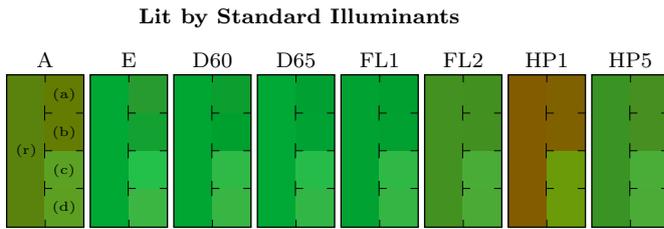
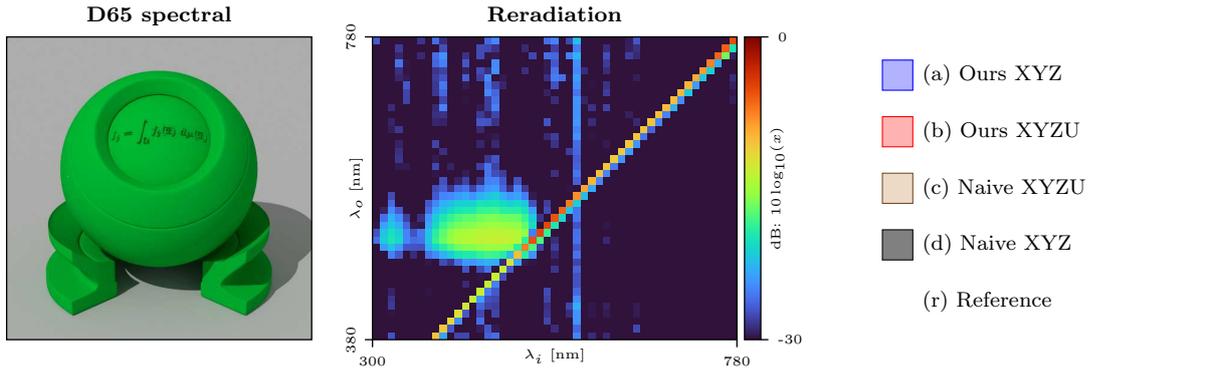
PAPYEL



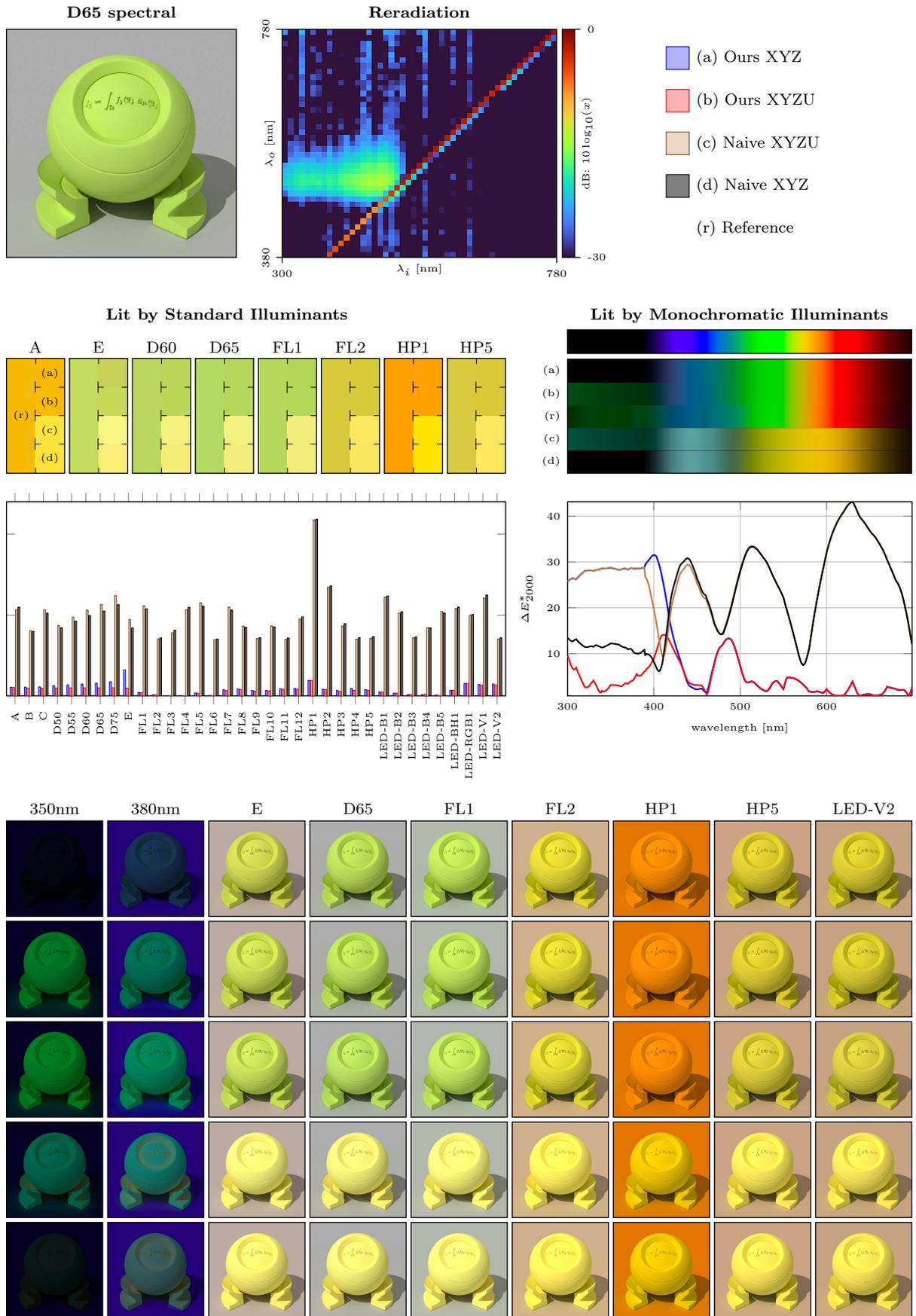
IXCROORA



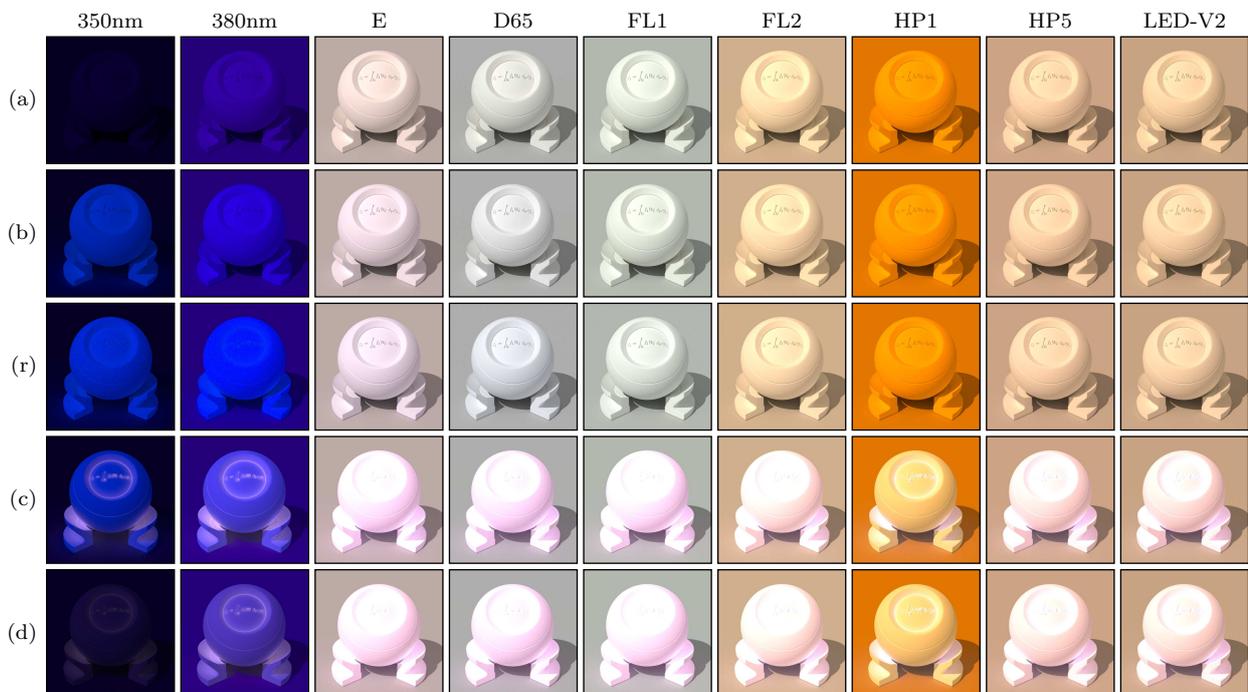
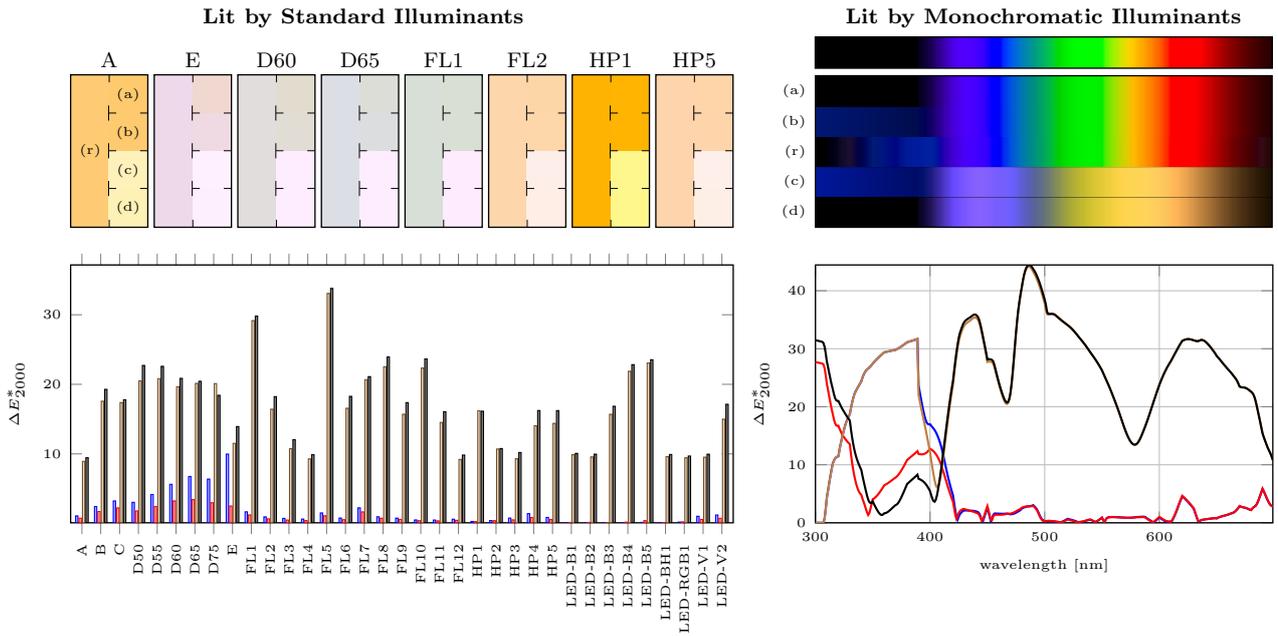
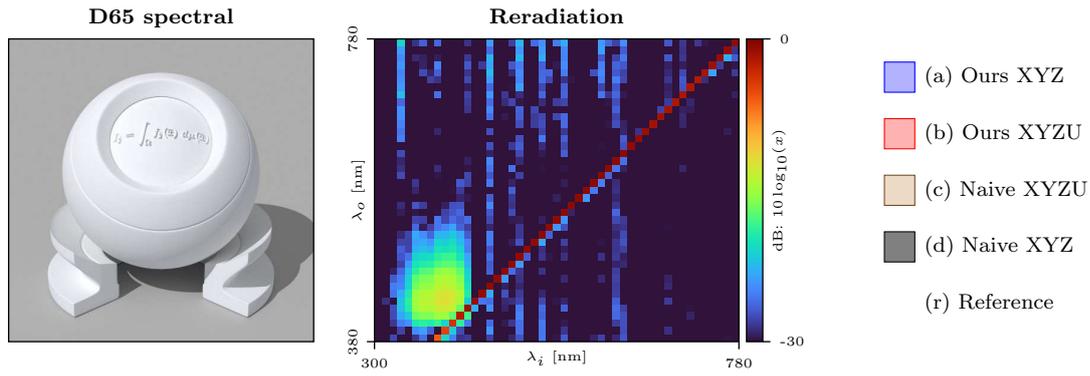
POLGREE



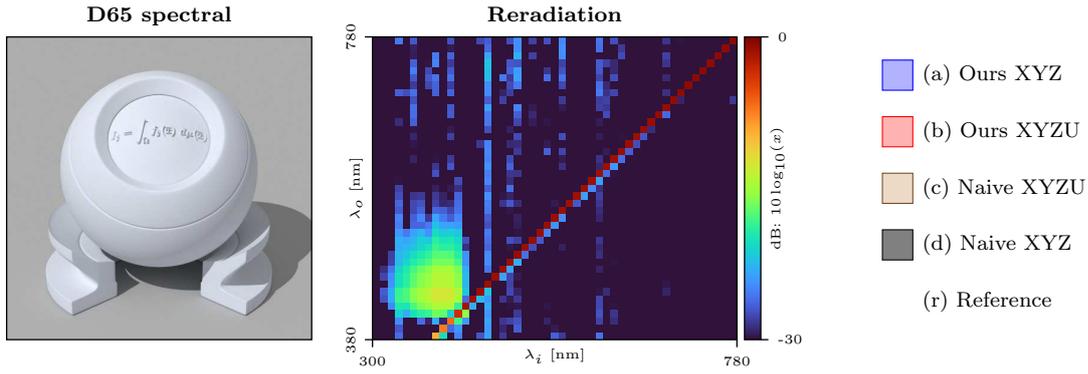
PAPGRE



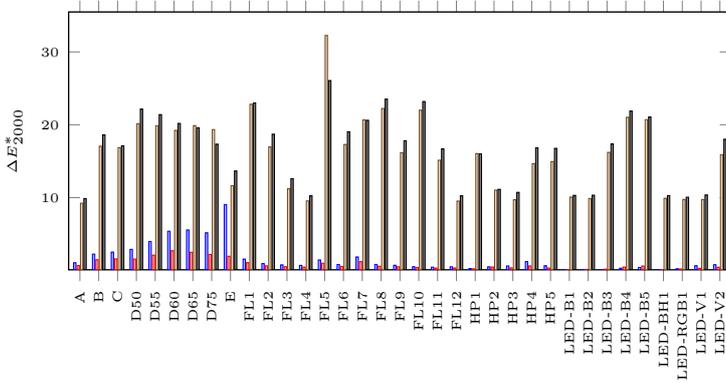
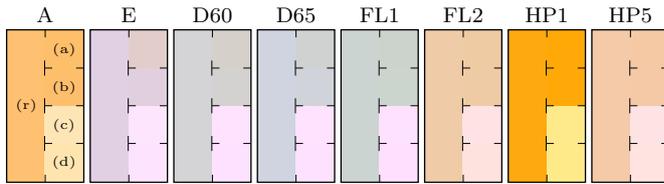
CIPLAW10



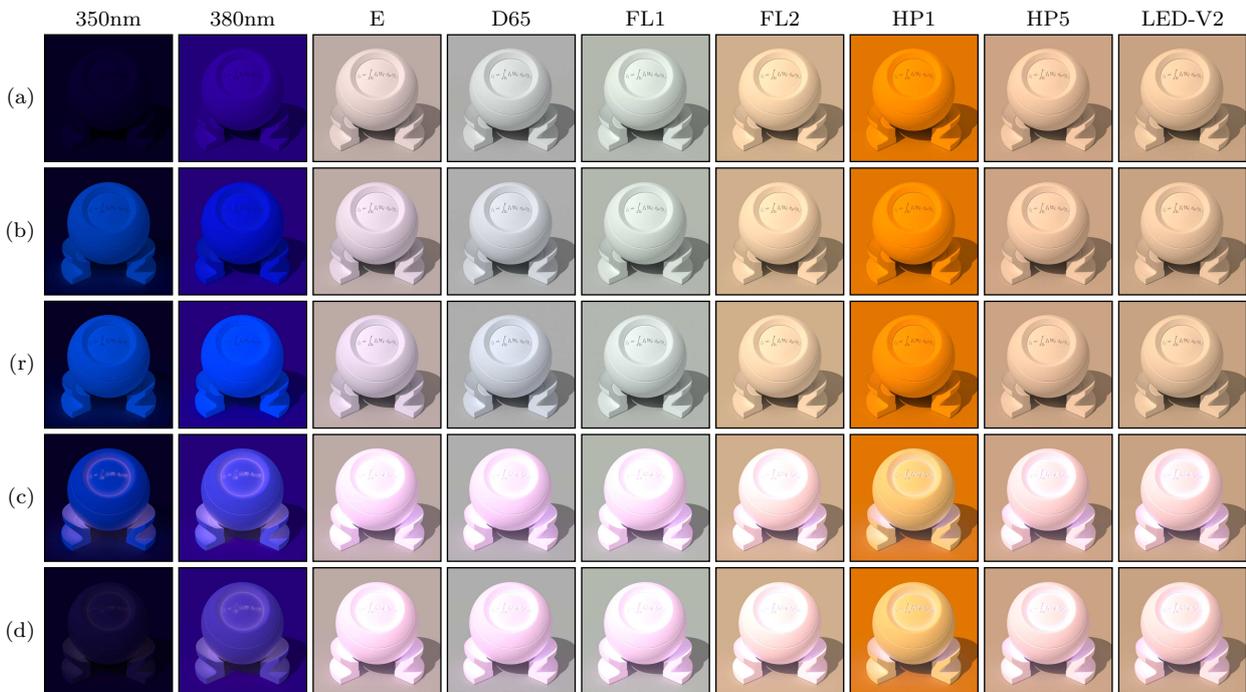
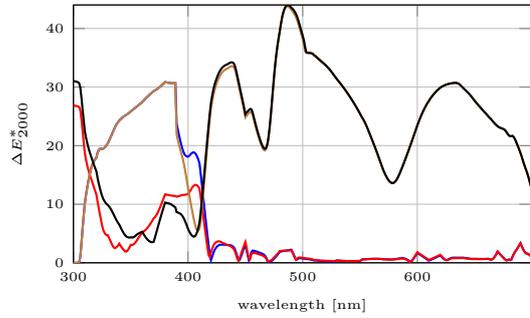
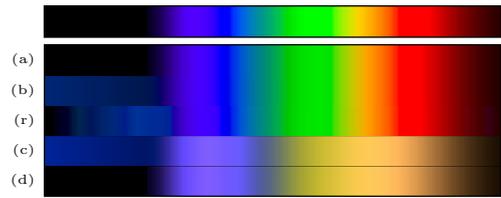
PFUJIWH



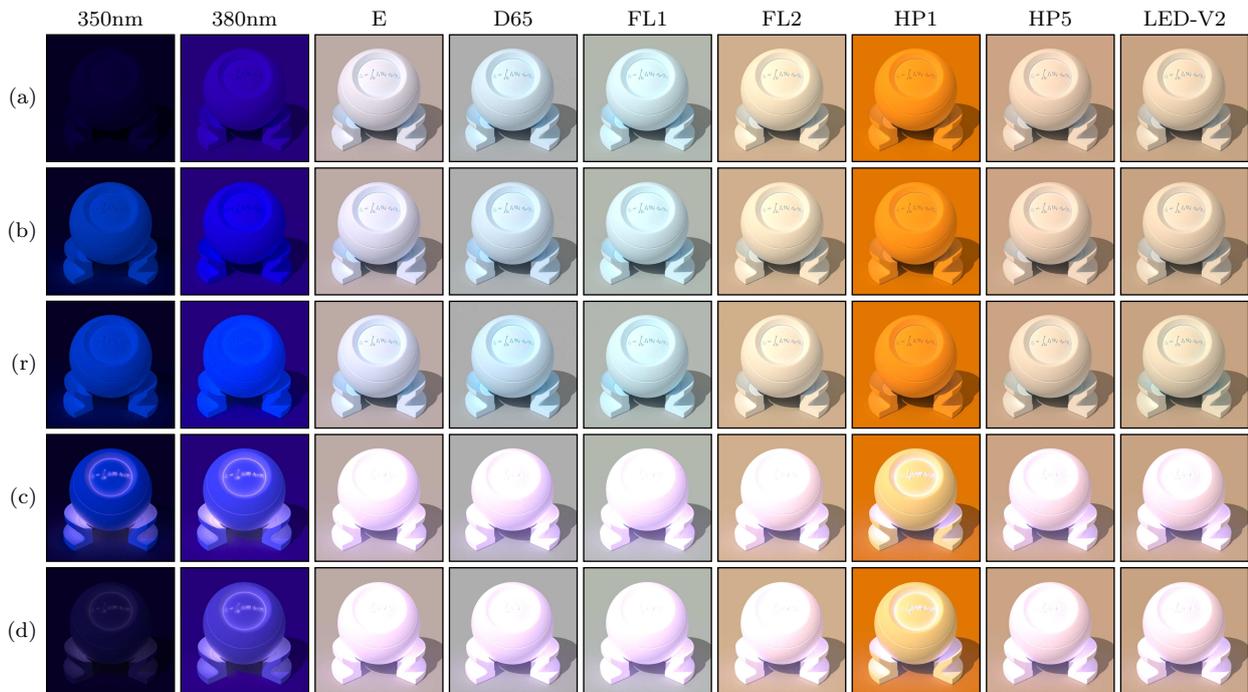
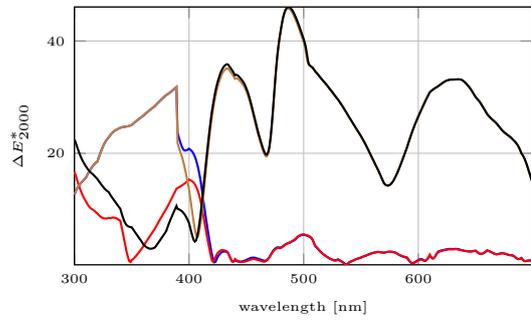
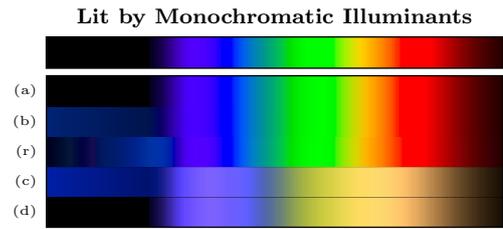
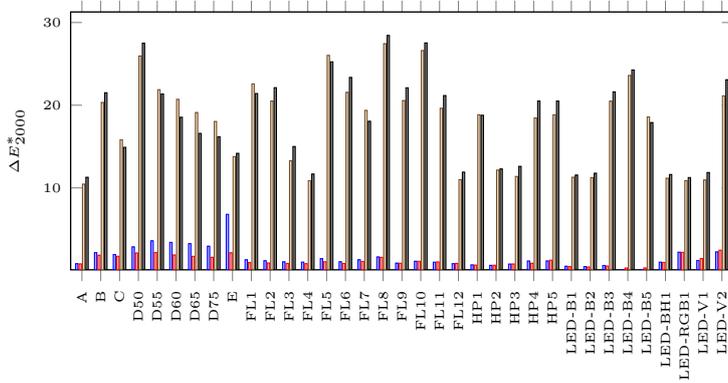
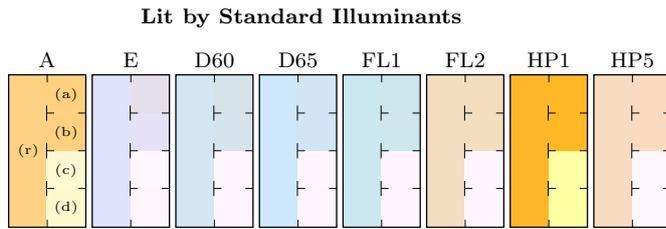
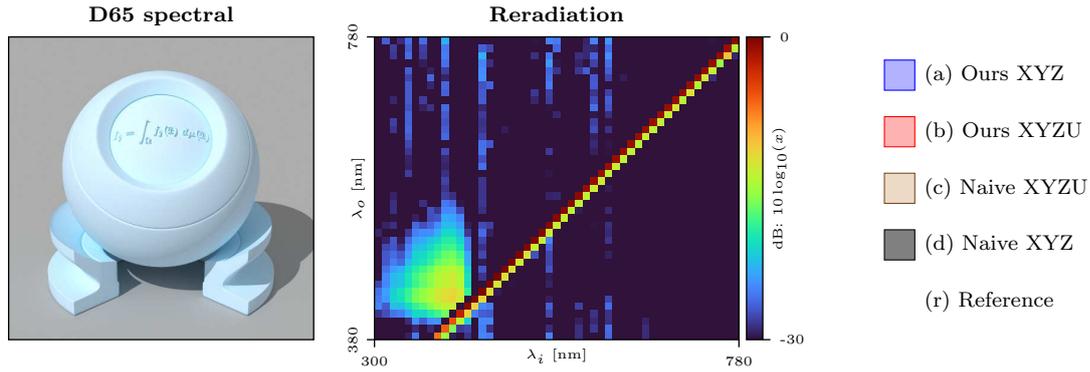
Lit by Standard Illuminants



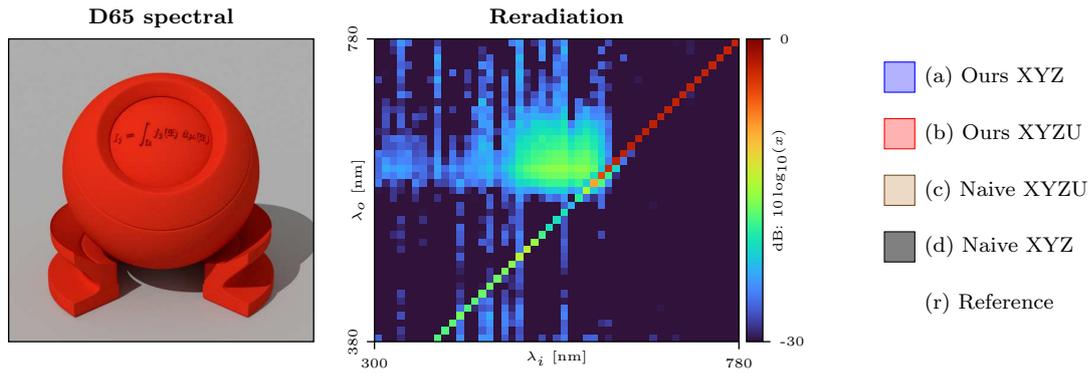
Lit by Monochromatic Illuminants



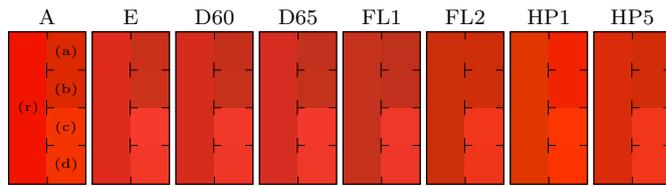
GOLF



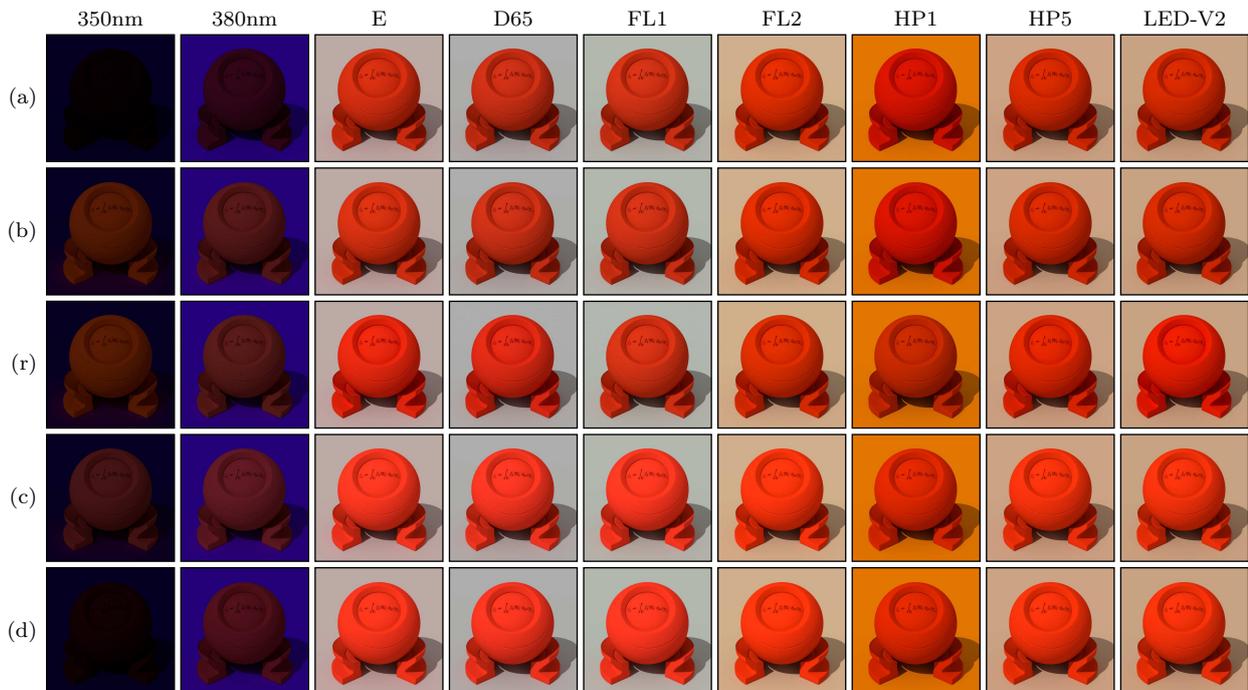
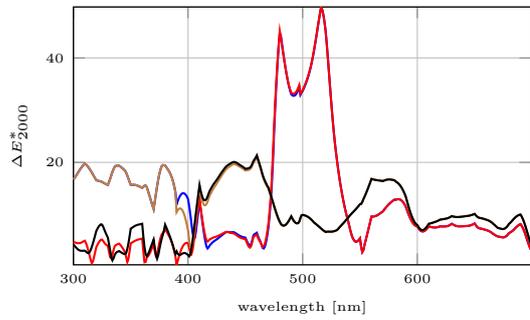
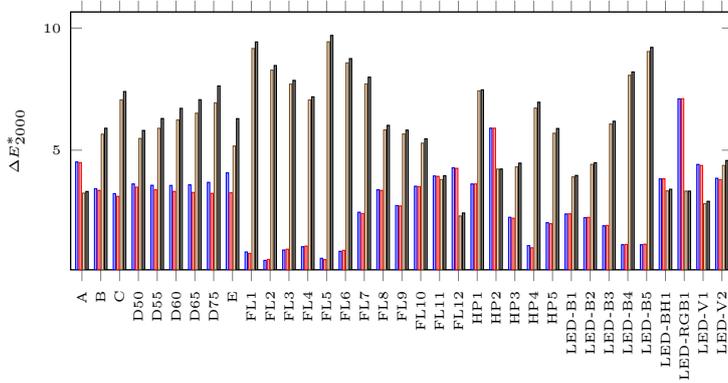
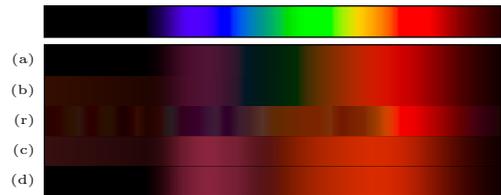
PLAORAN



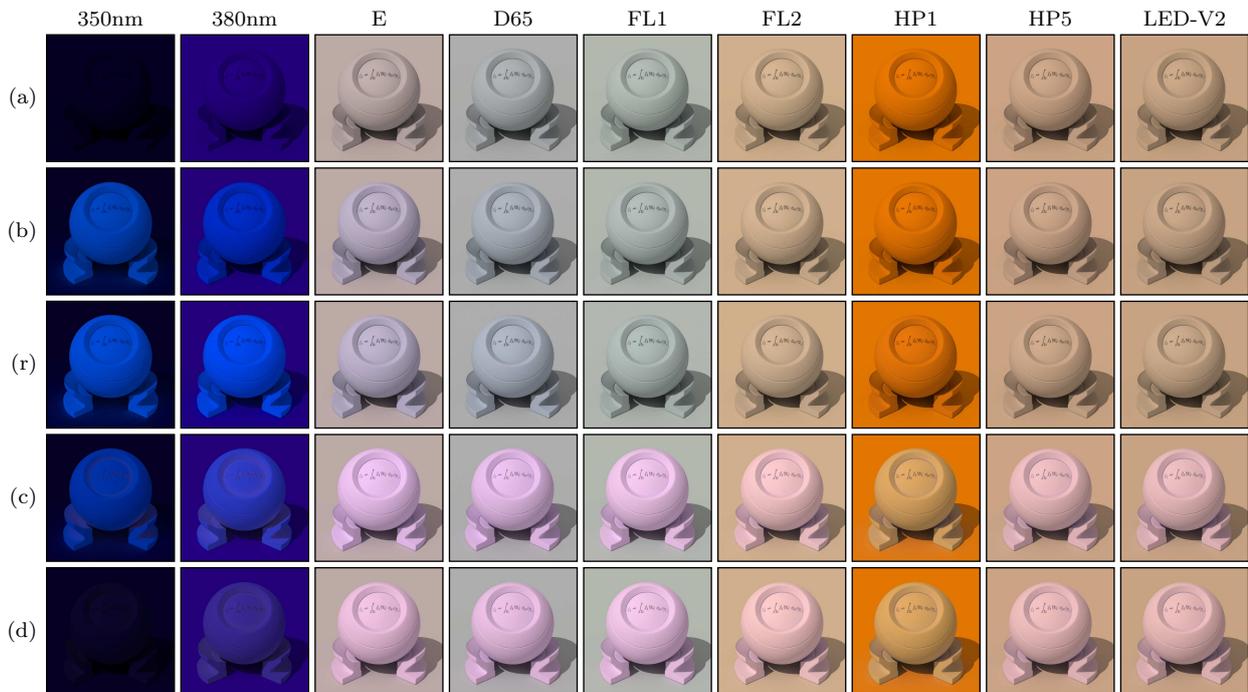
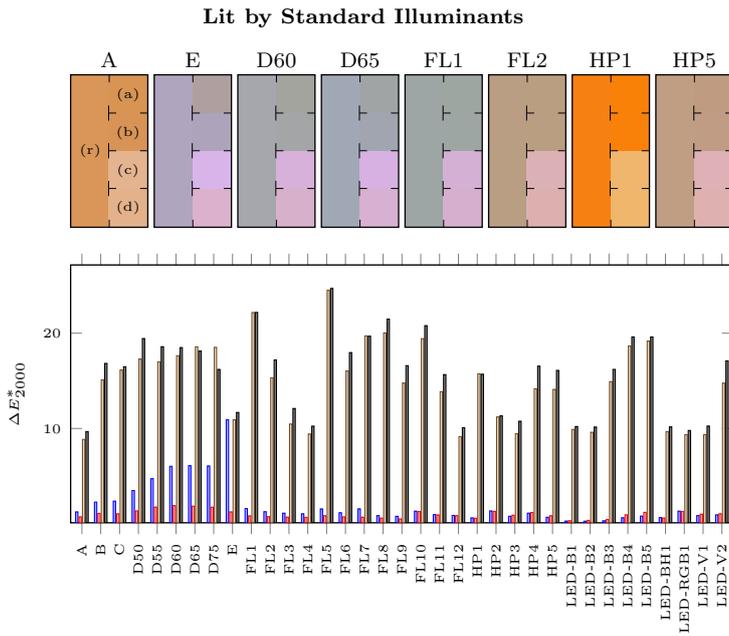
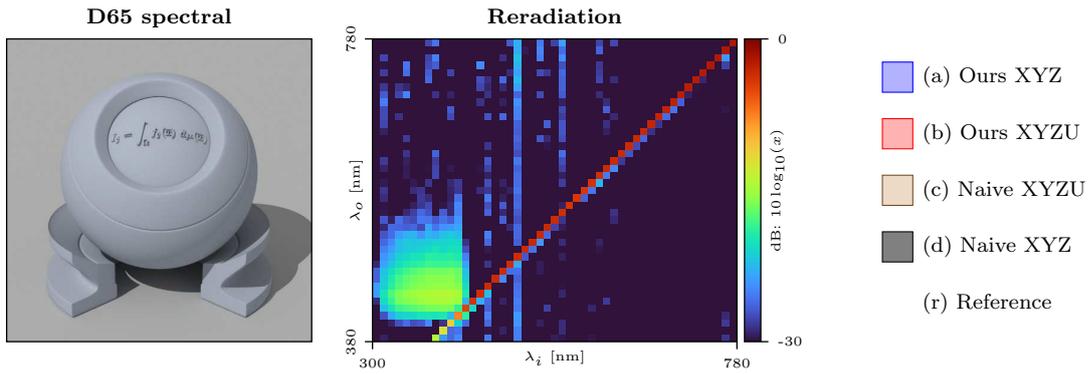
Lit by Standard Illuminants



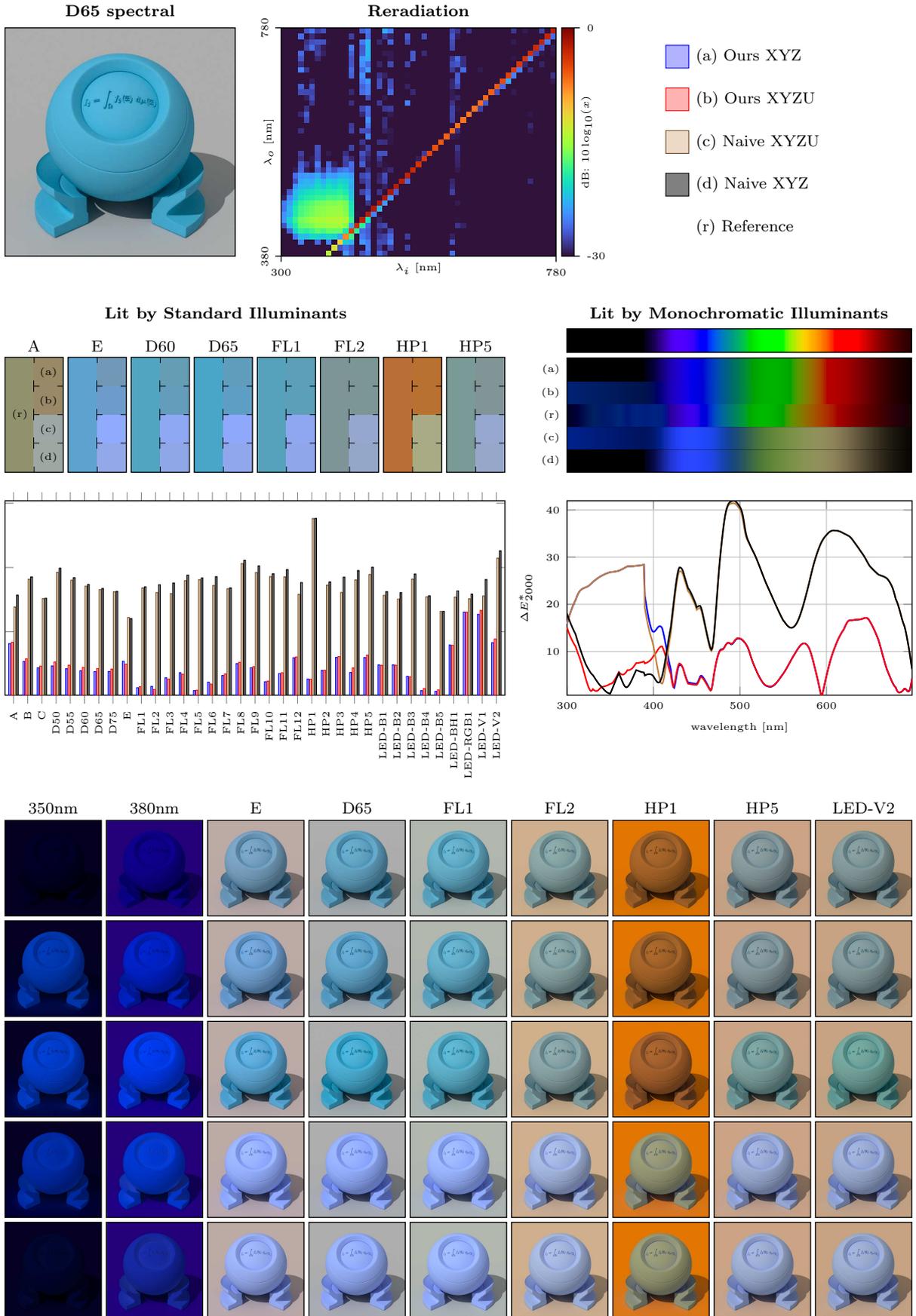
Lit by Monochromatic Illuminants



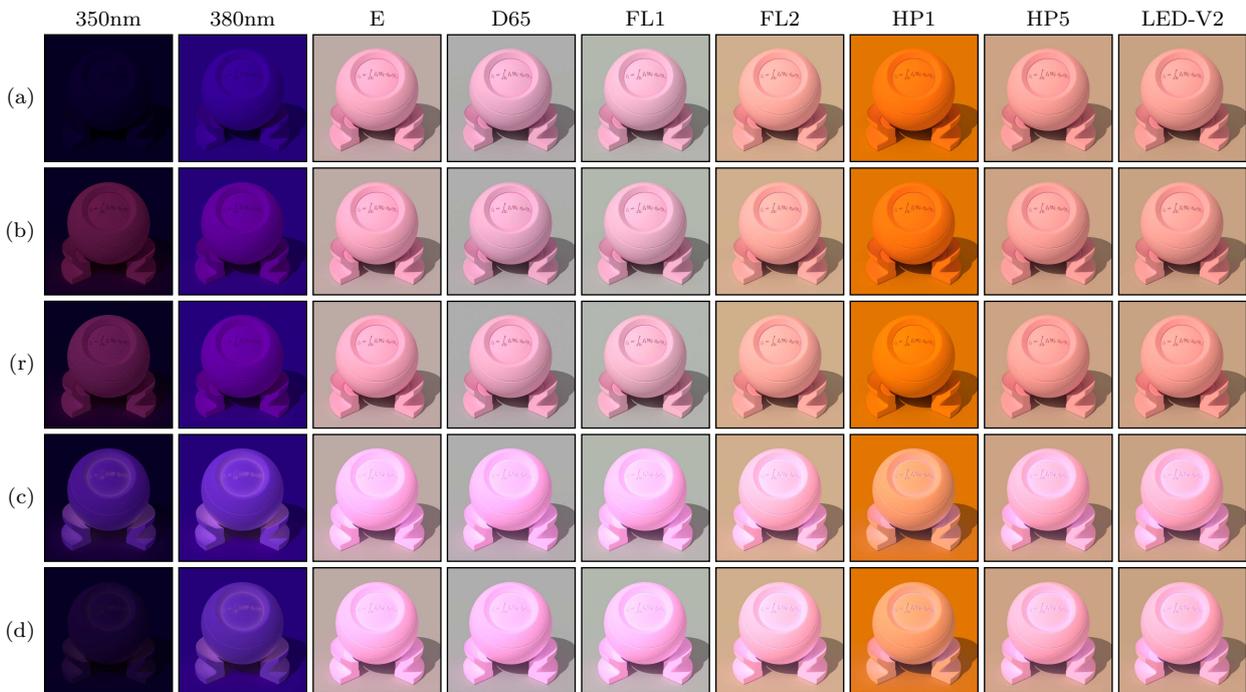
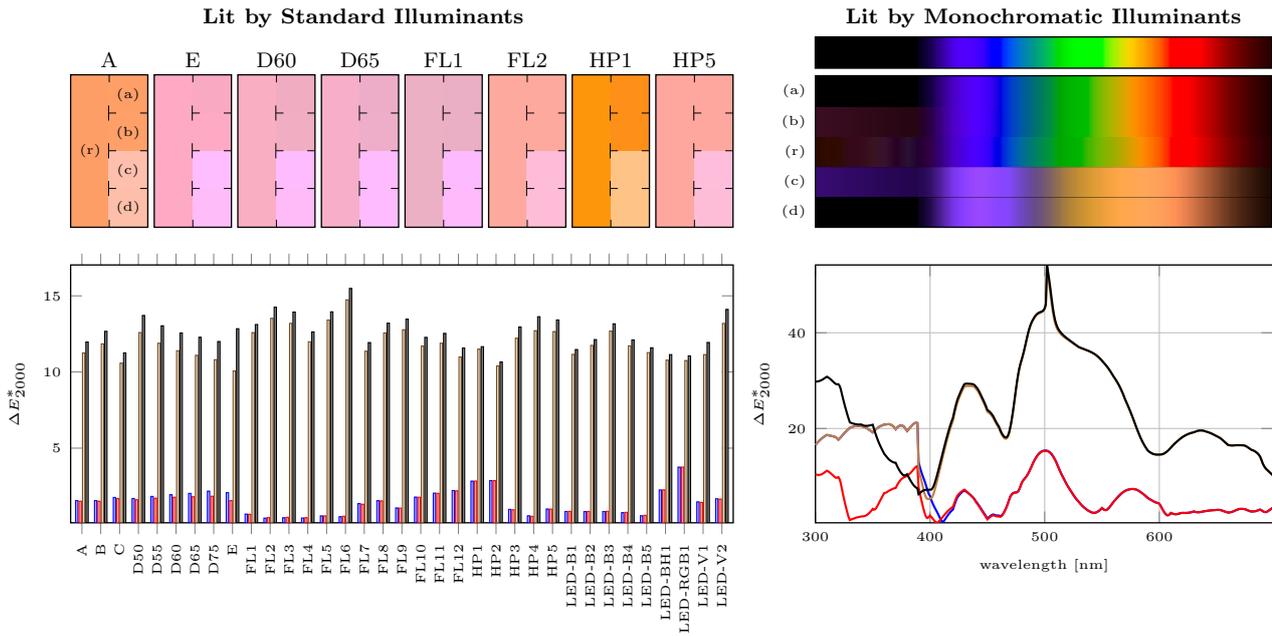
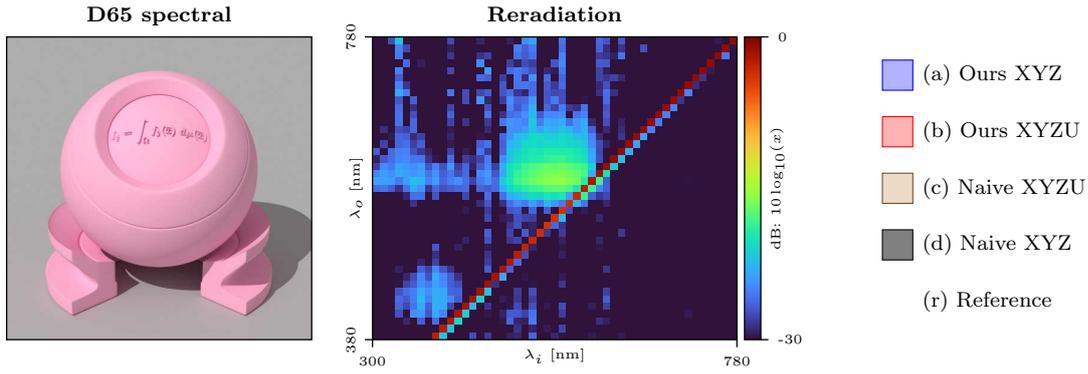
PHP8HP5K



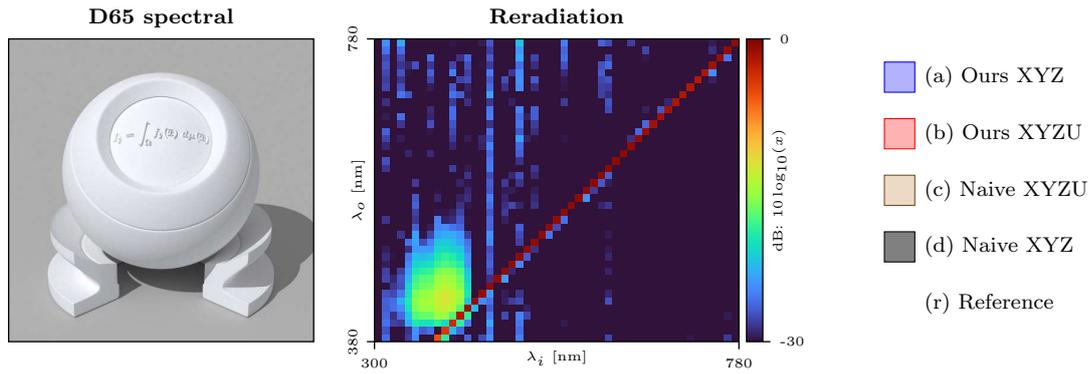
PHP8HP5C



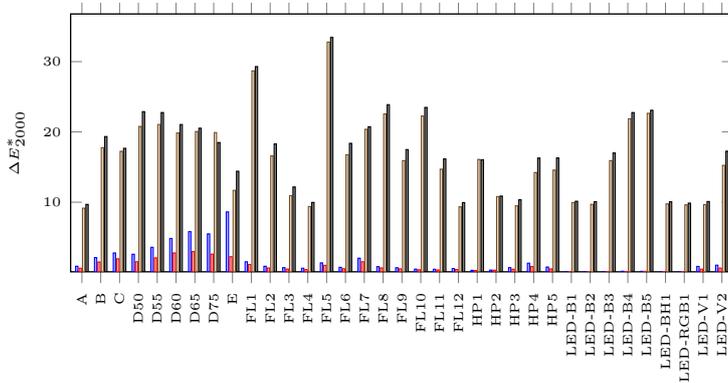
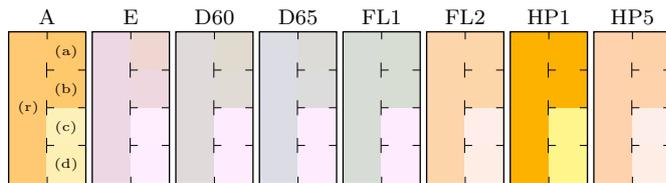
IXCRHMAG



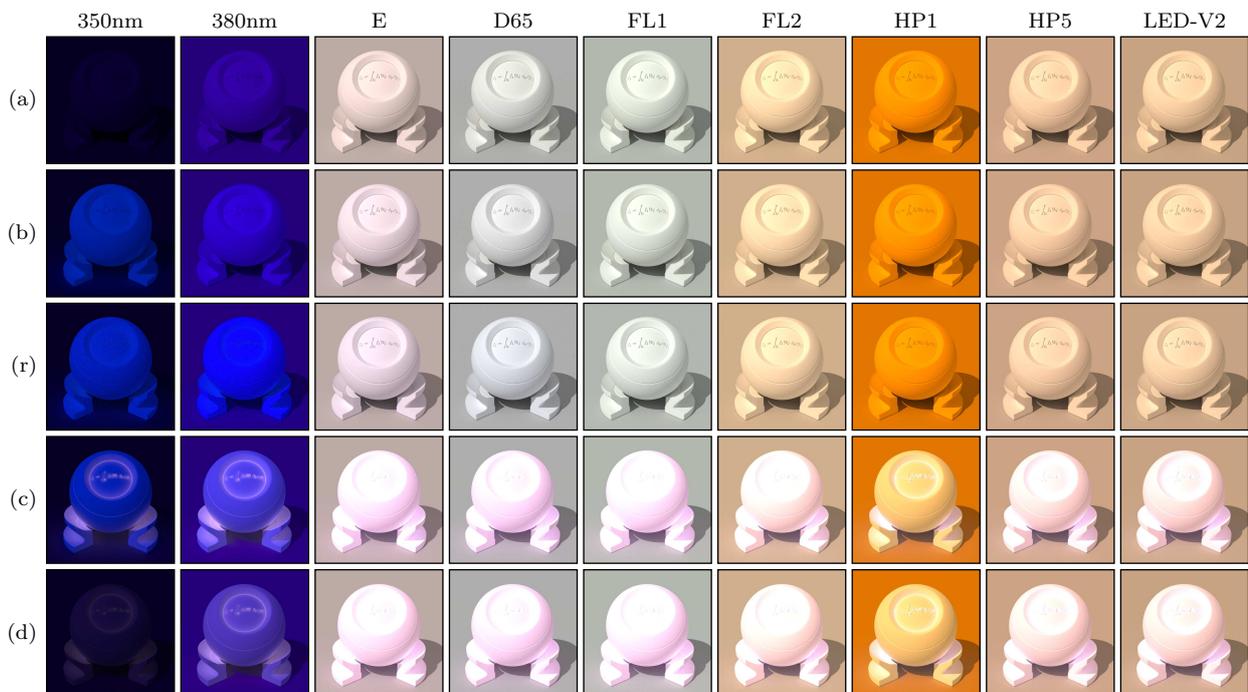
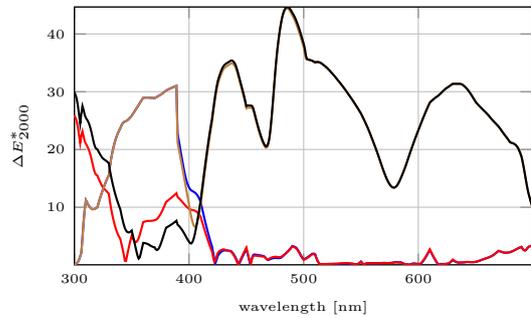
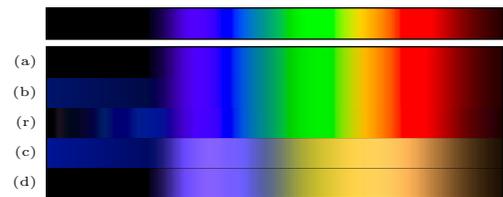
CIPLAW9



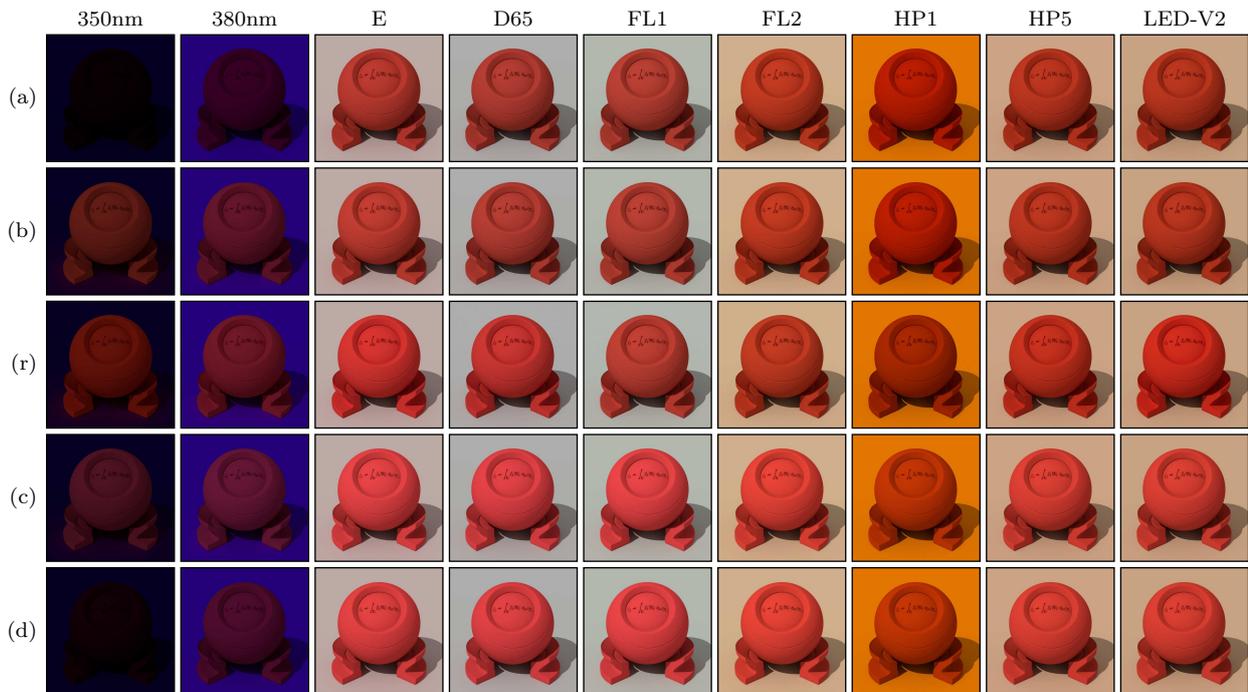
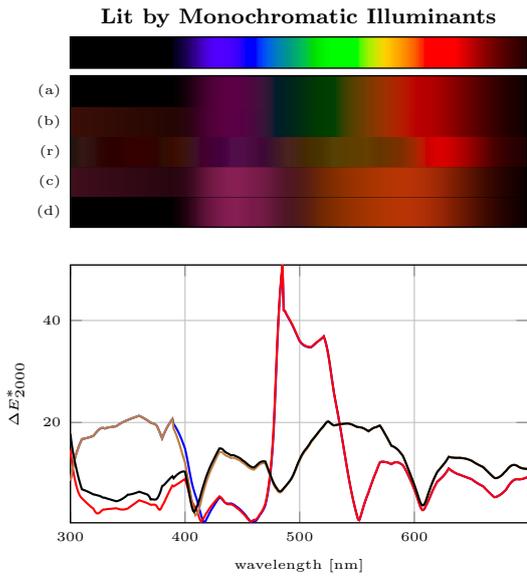
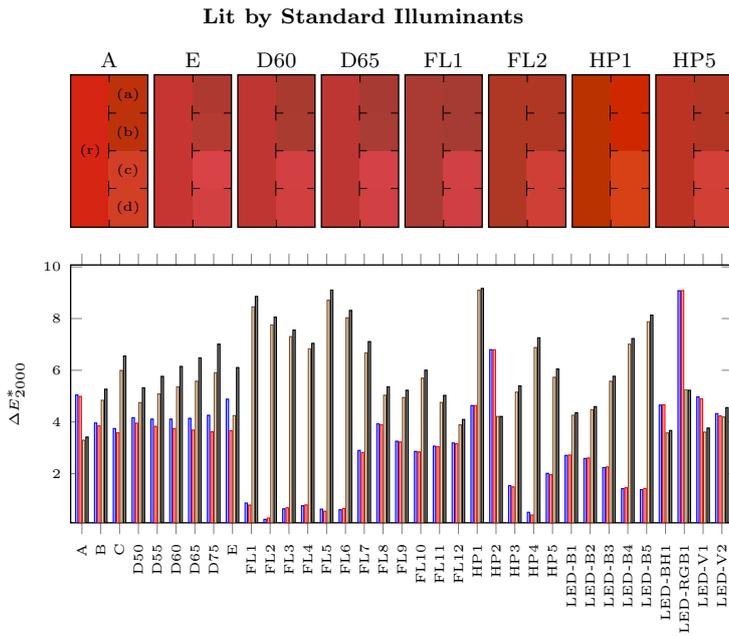
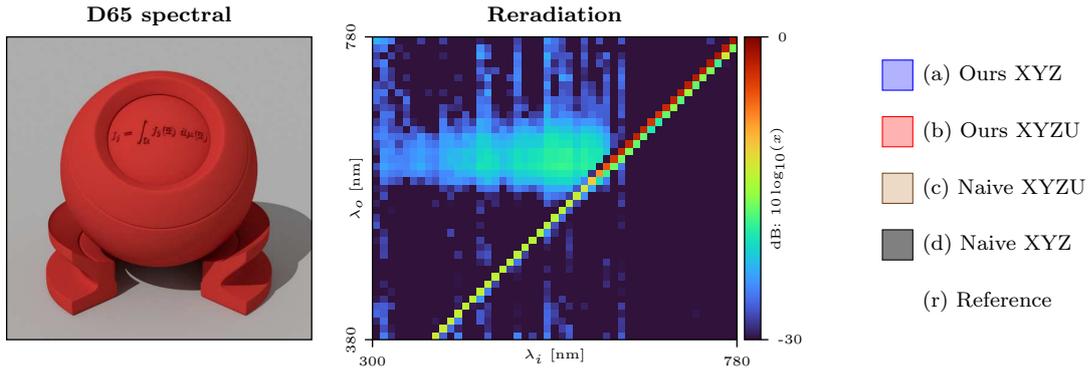
Lit by Standard Illuminants



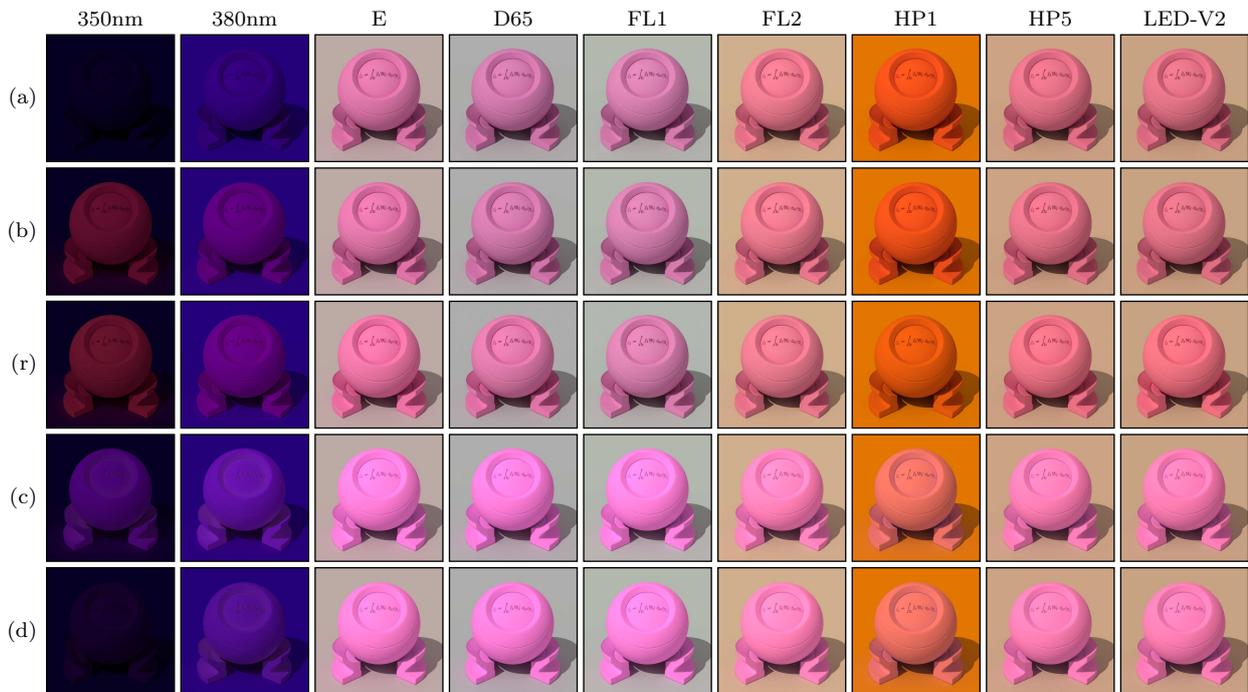
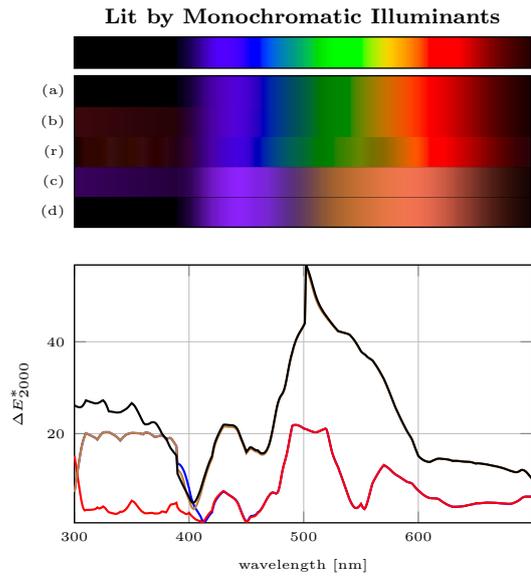
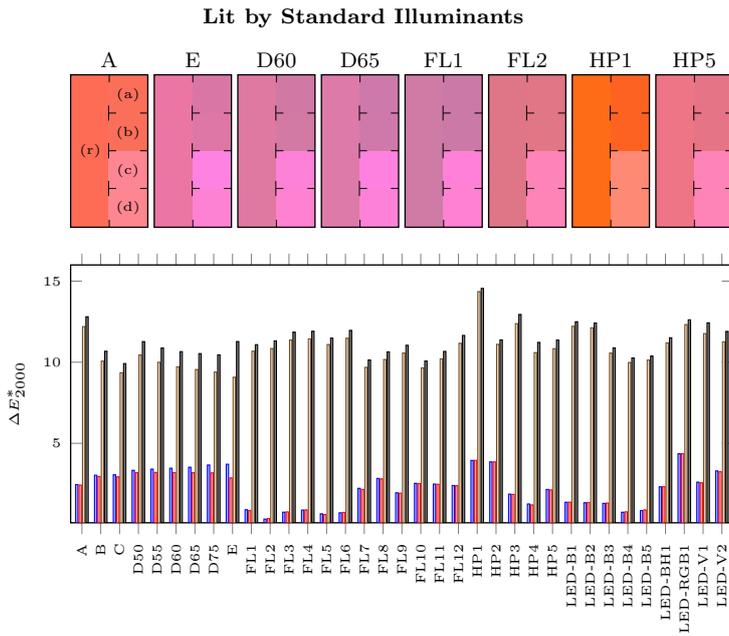
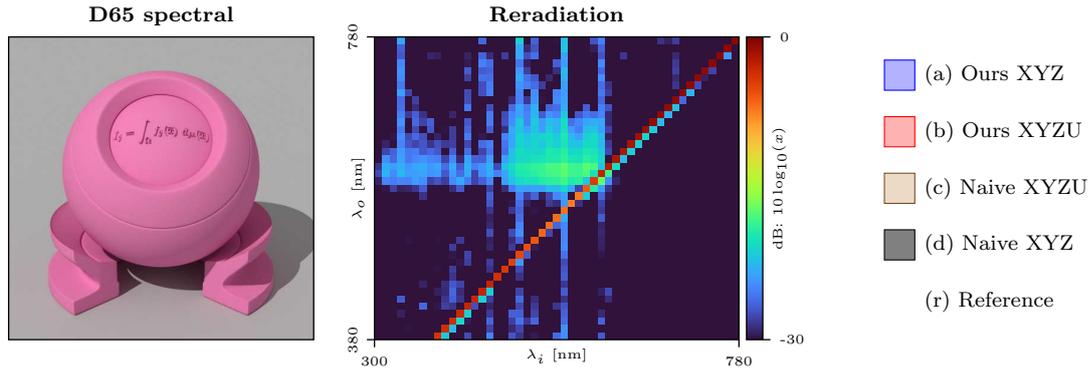
Lit by Monochromatic Illuminants



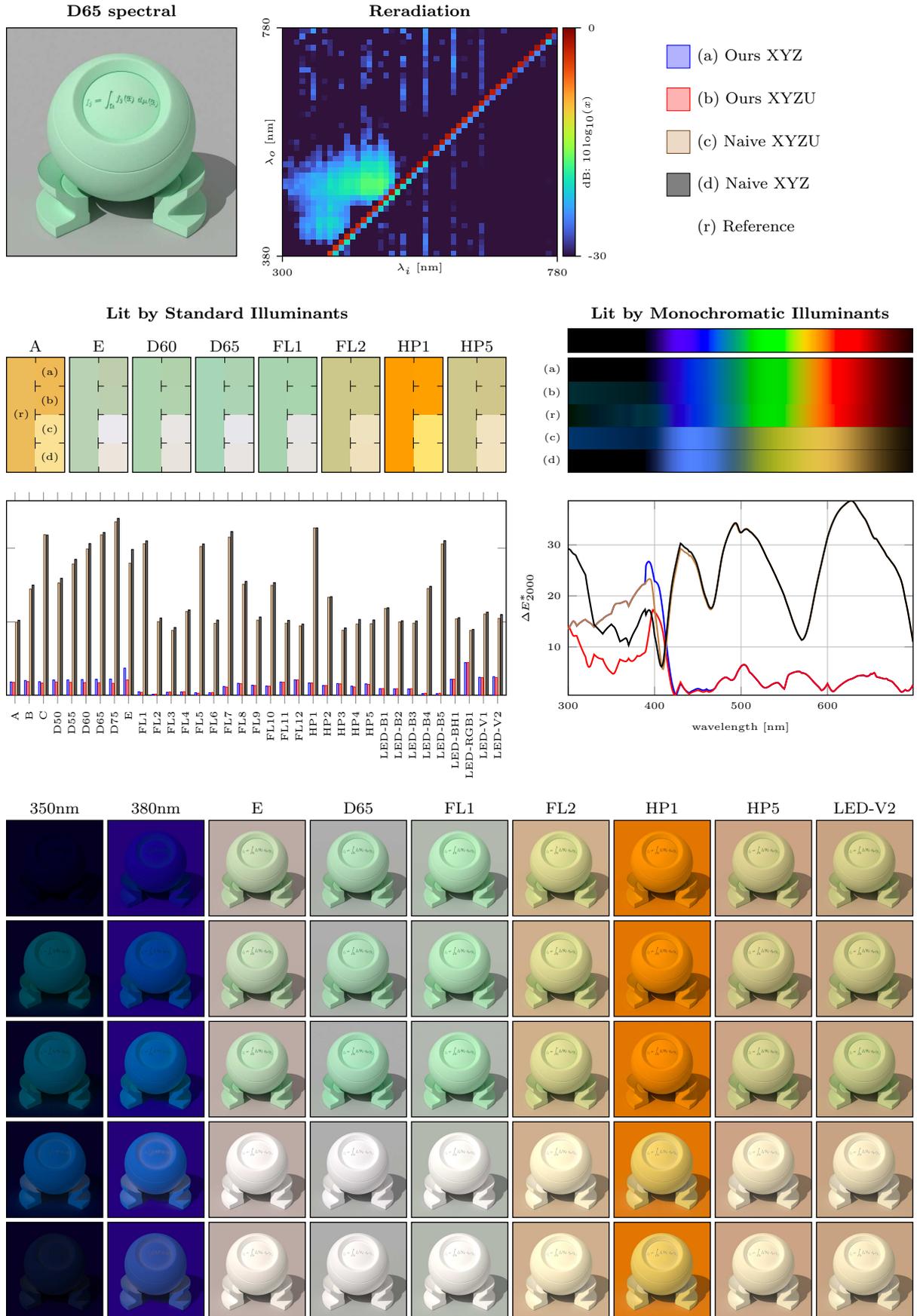
POLYRED



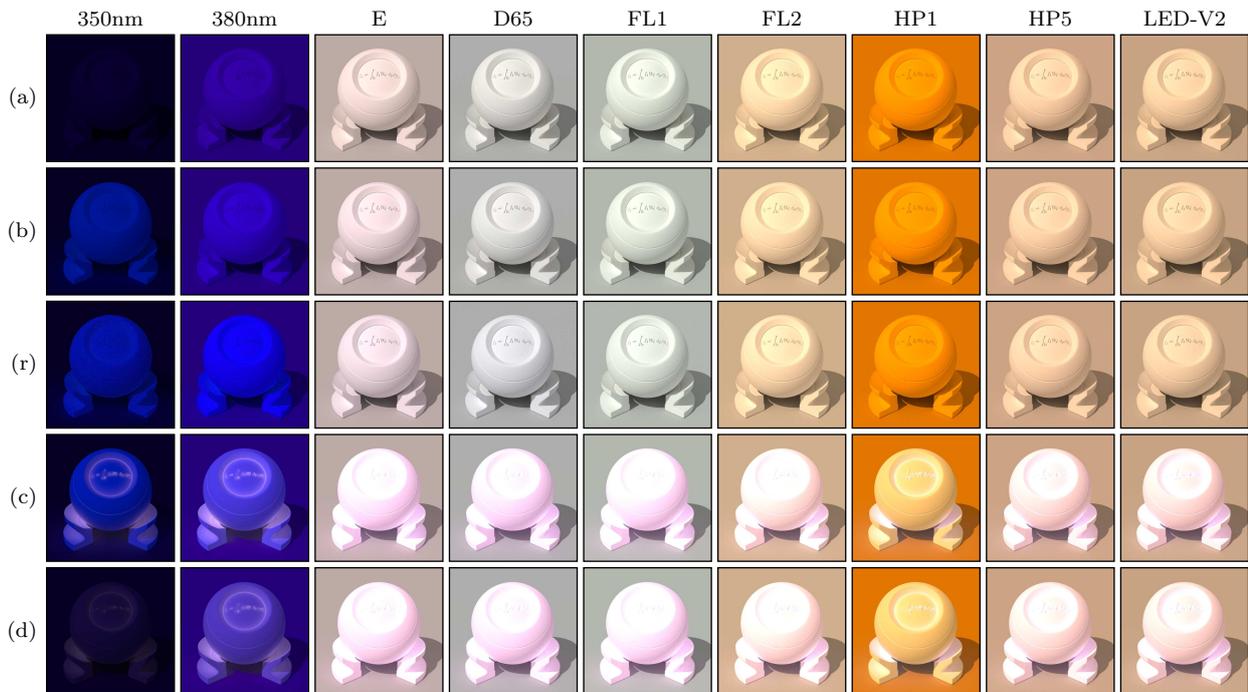
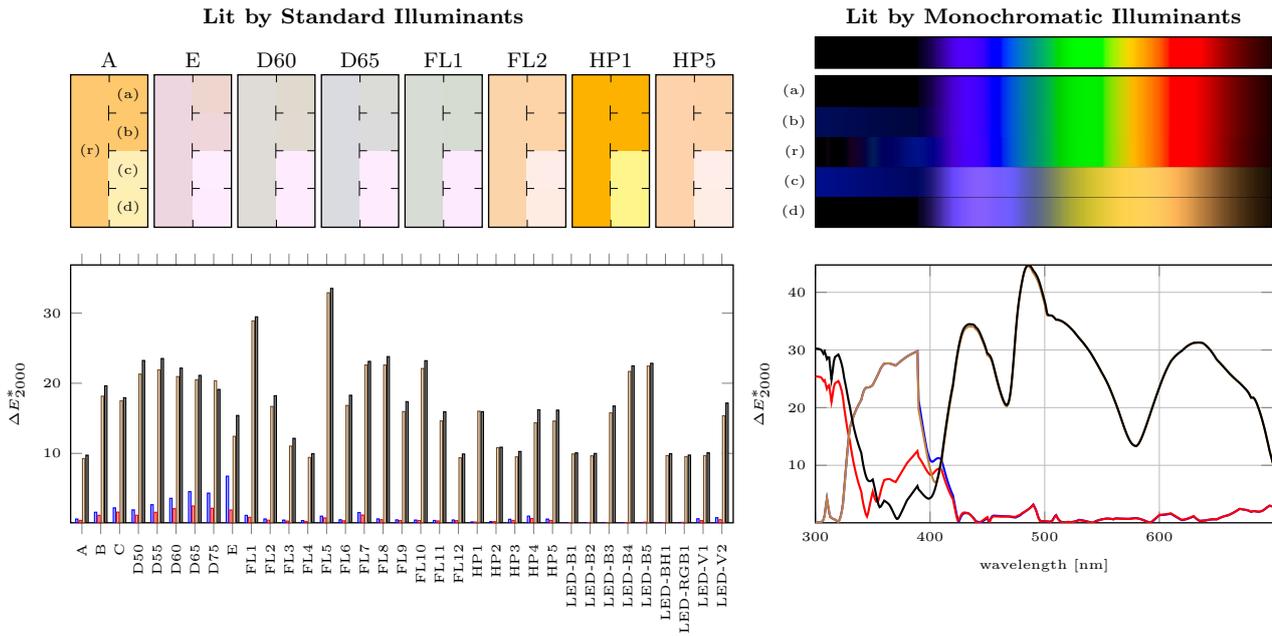
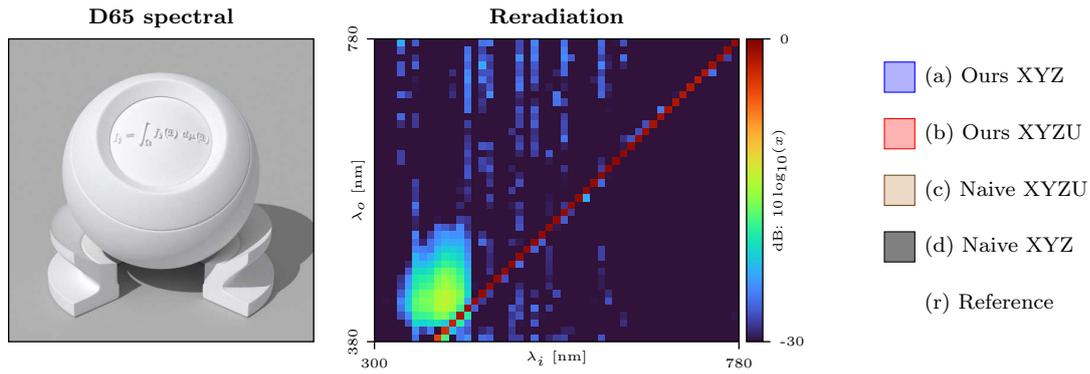
IXCAXPMA



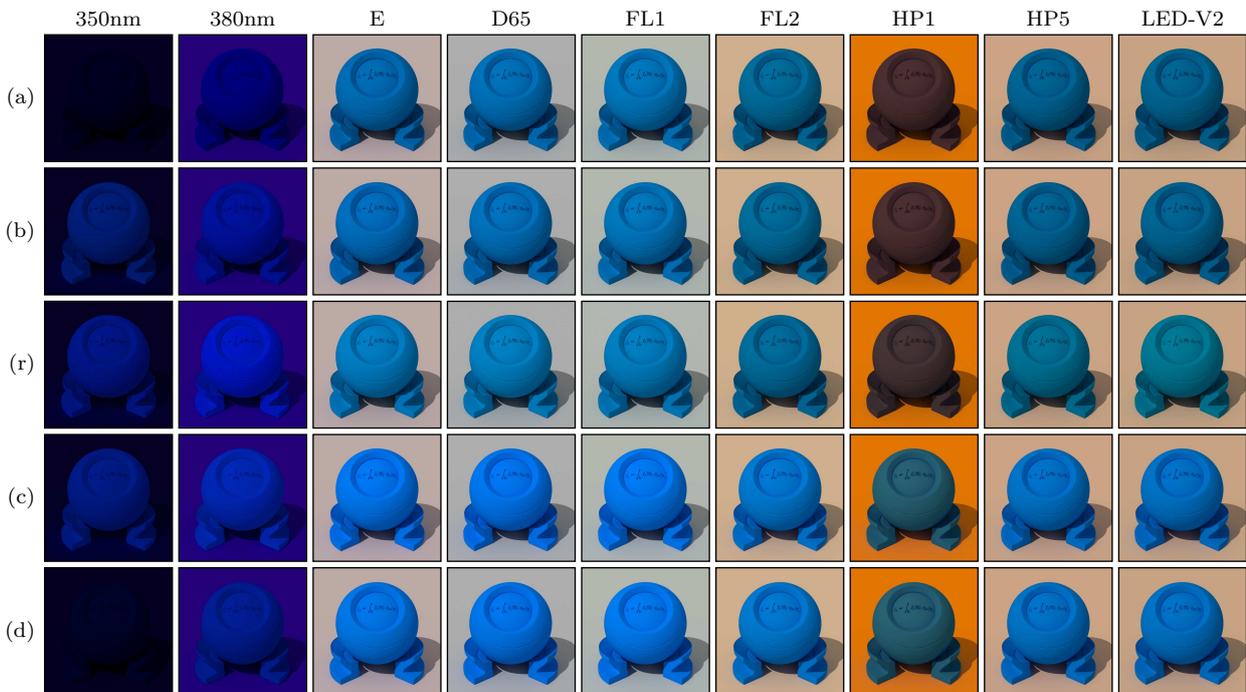
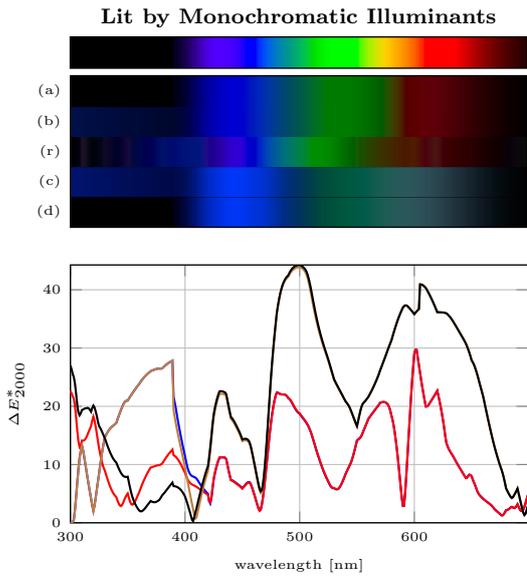
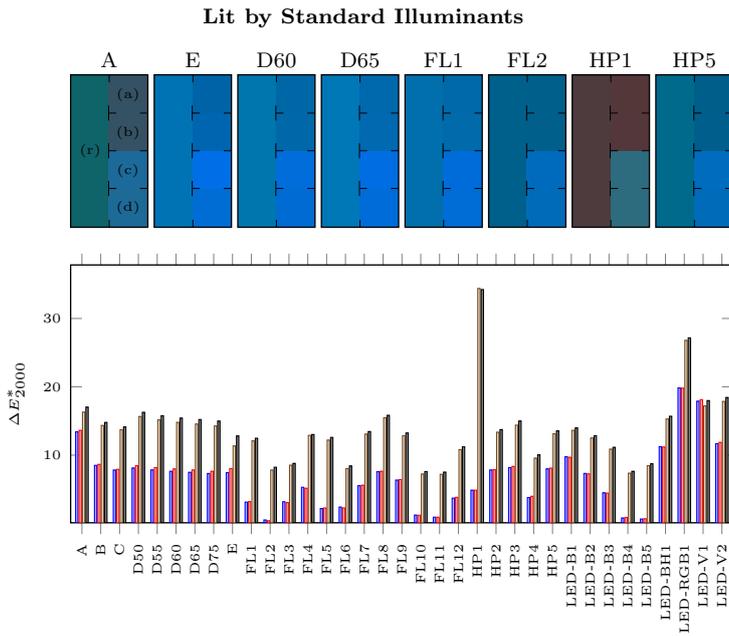
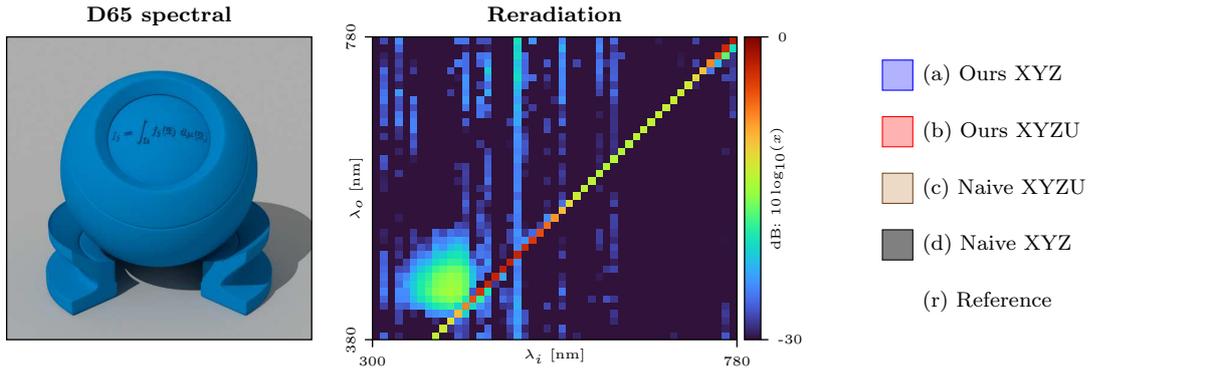
IXCMMINT



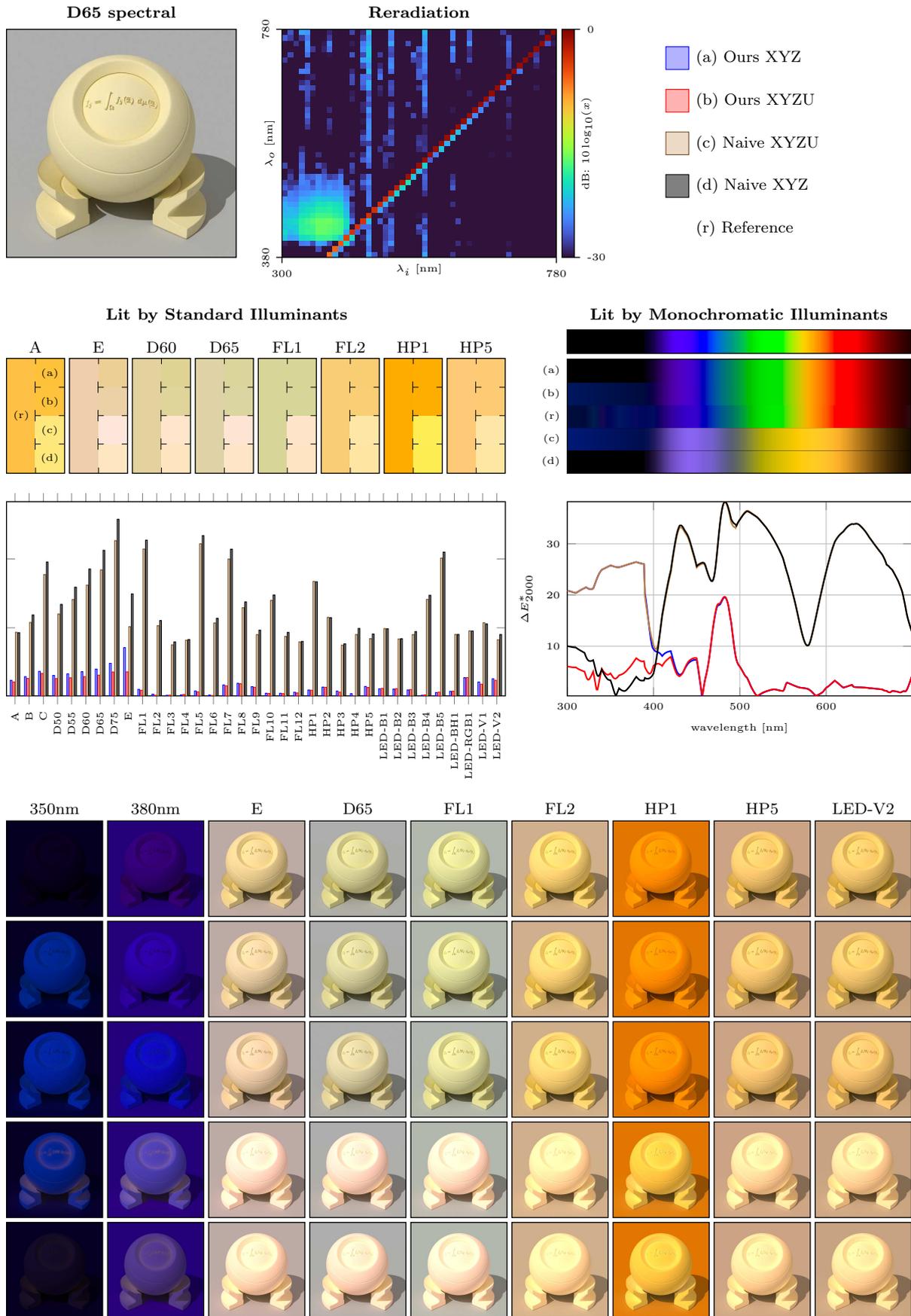
CIPLAW8



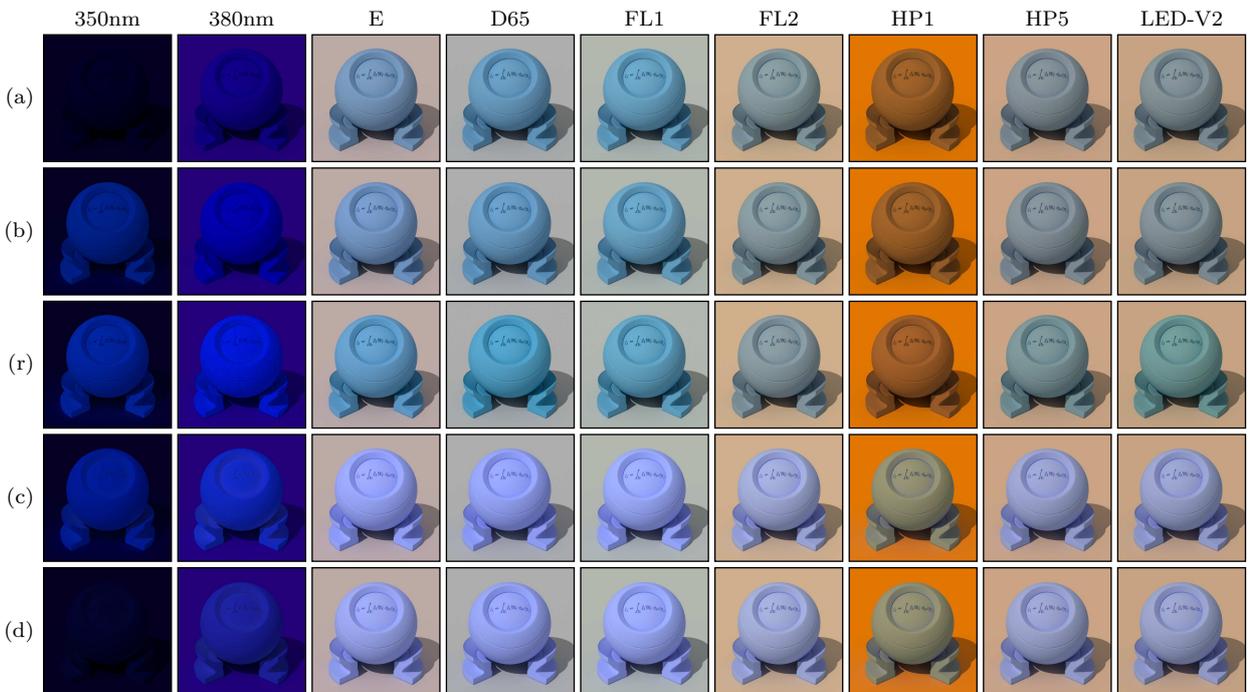
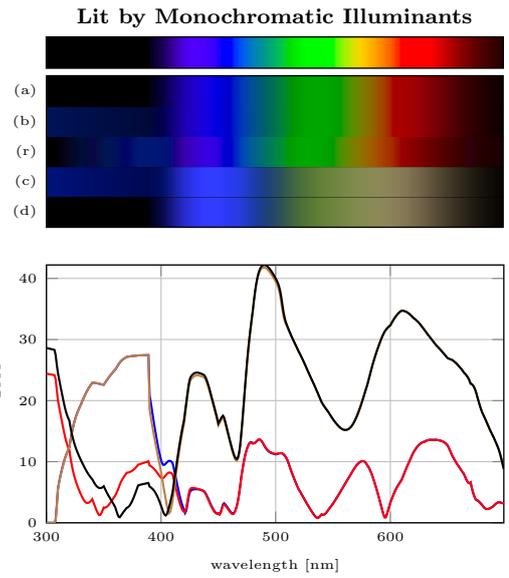
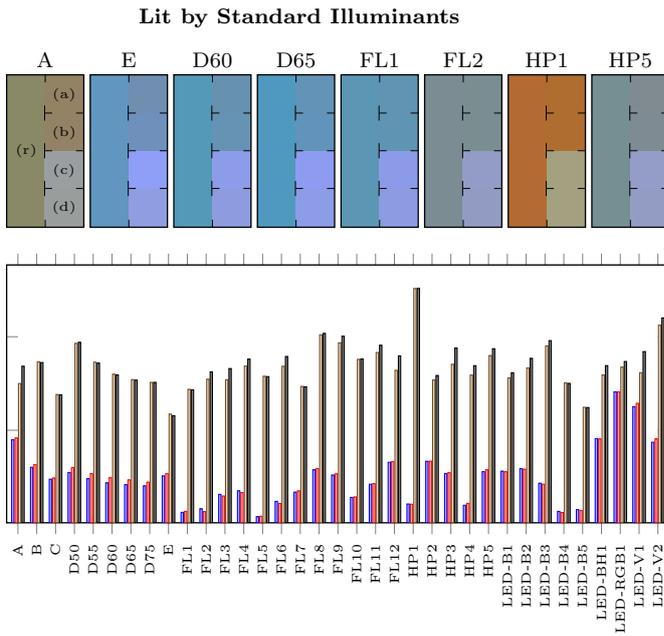
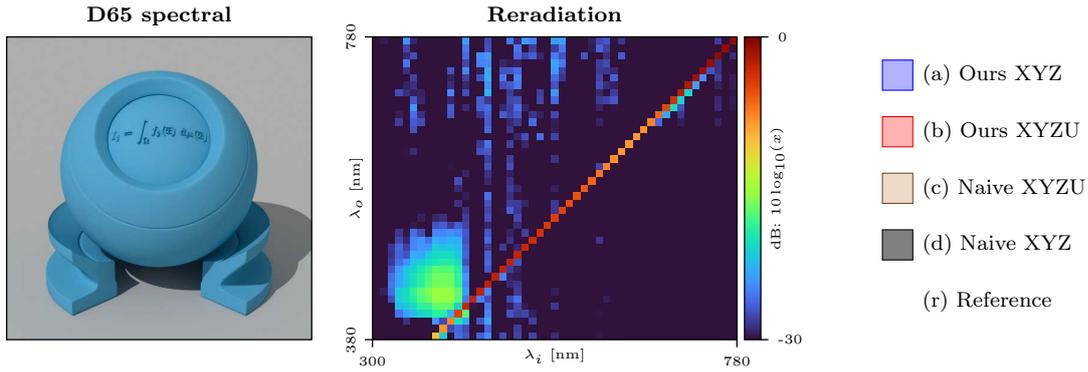
HERPIBLU



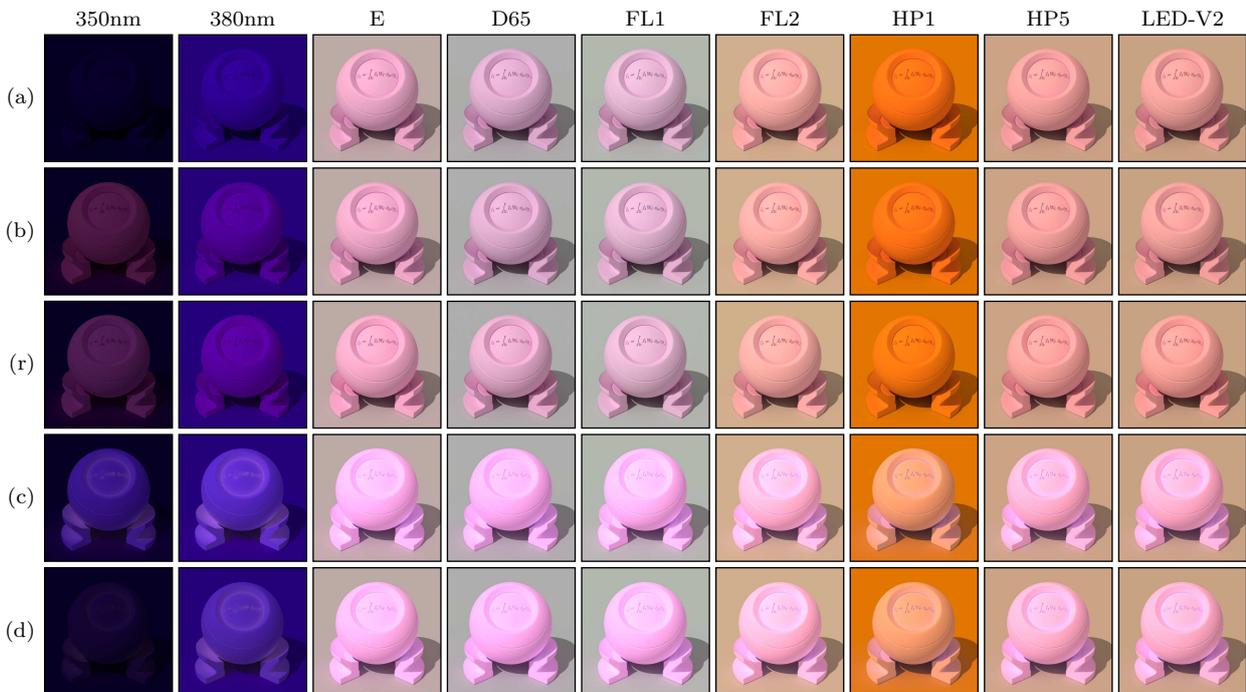
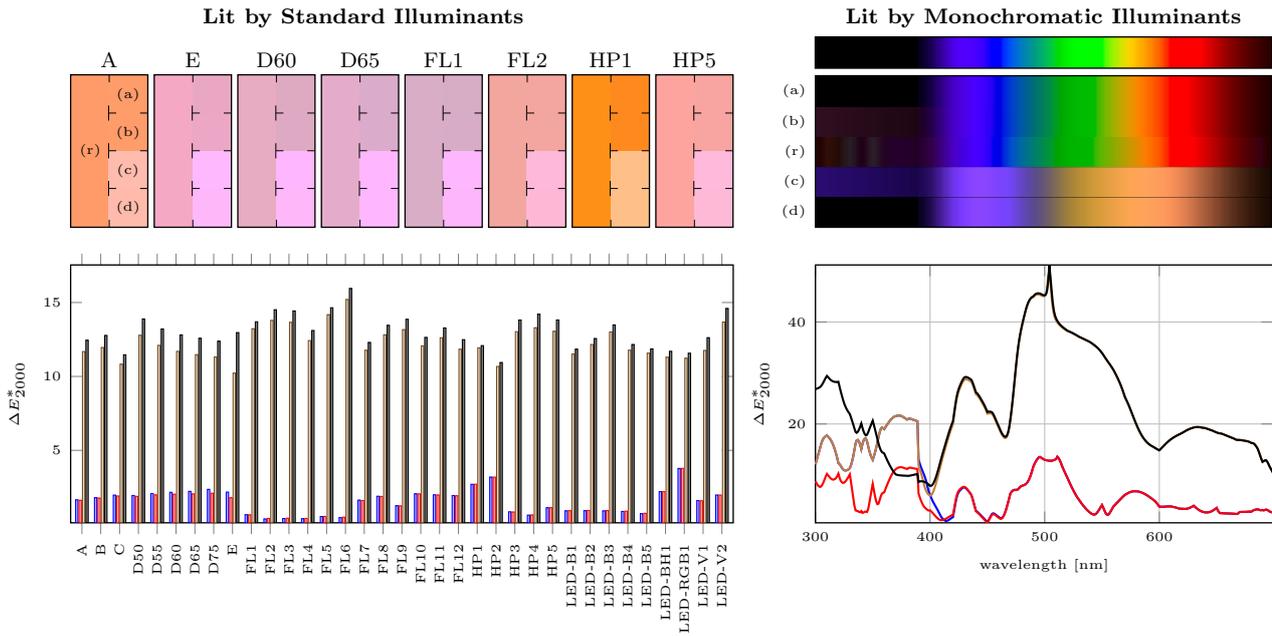
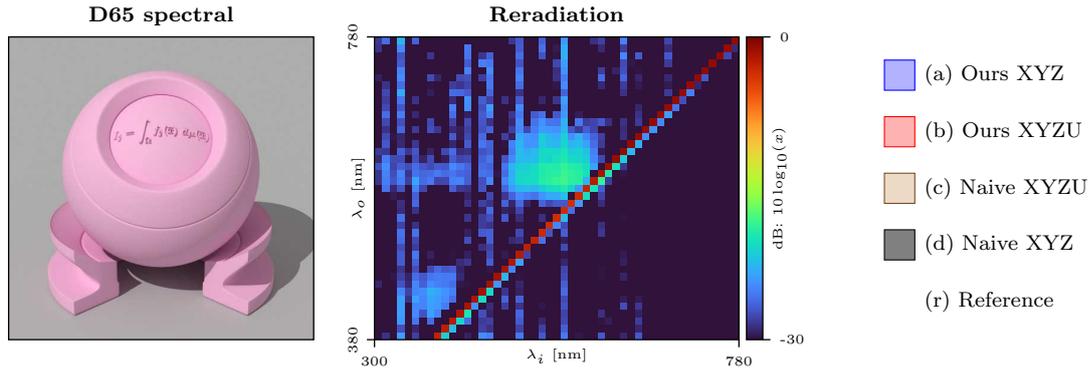
PHP8RV5Y



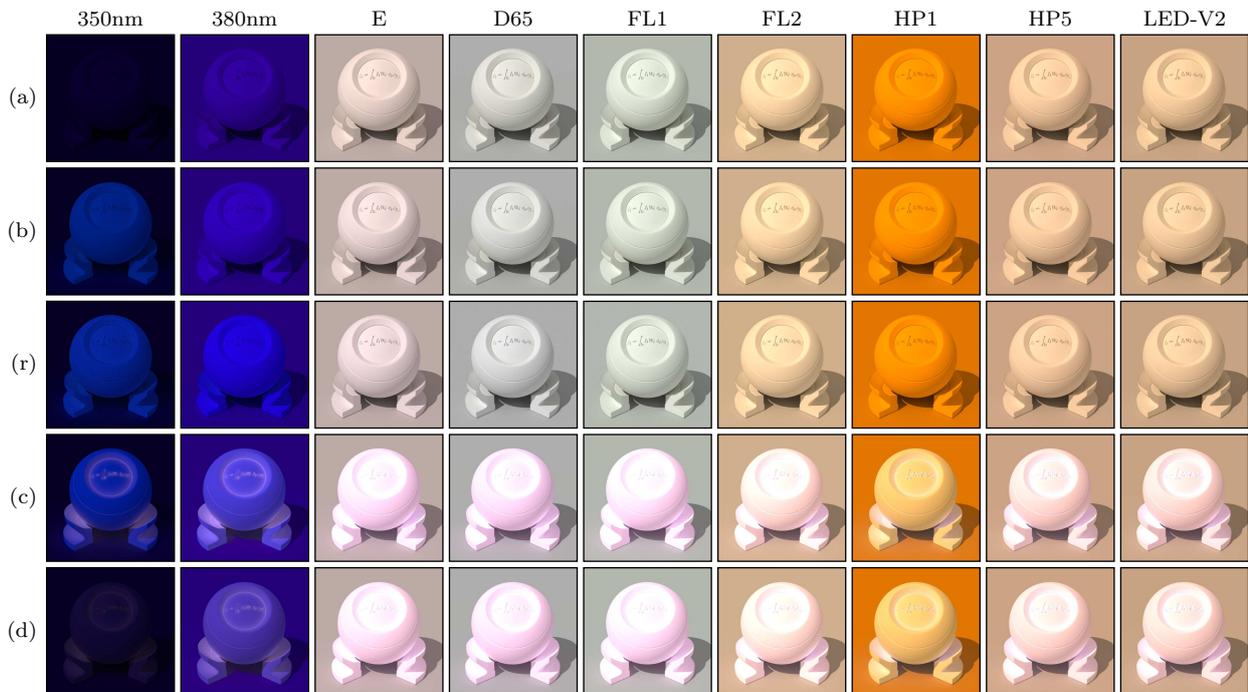
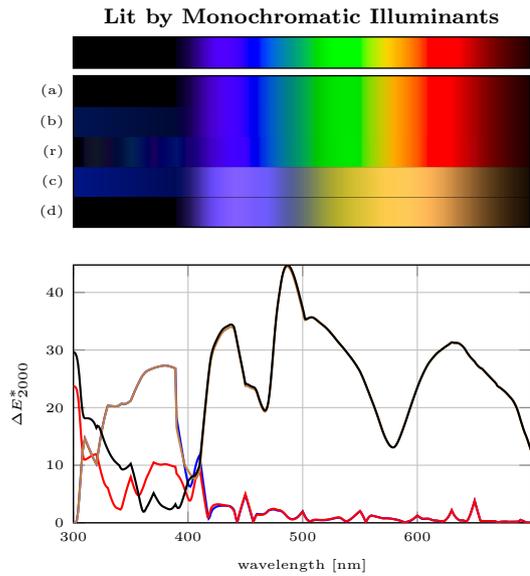
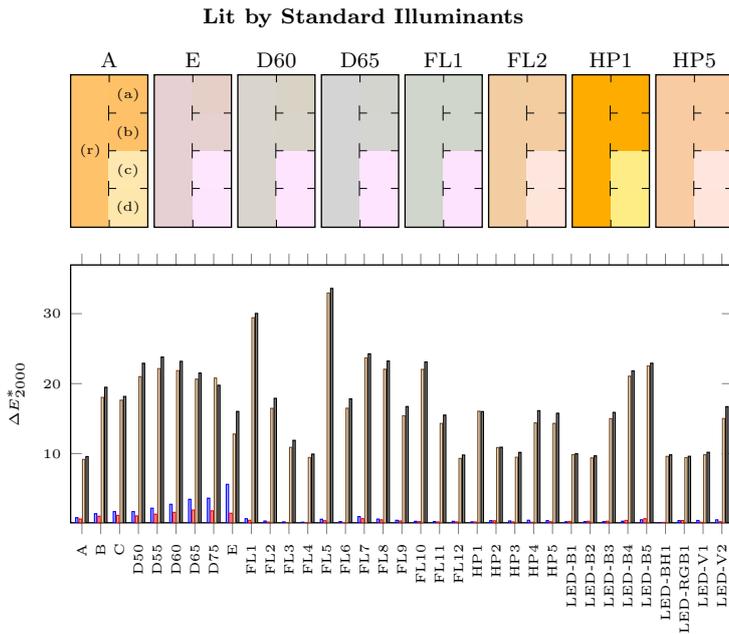
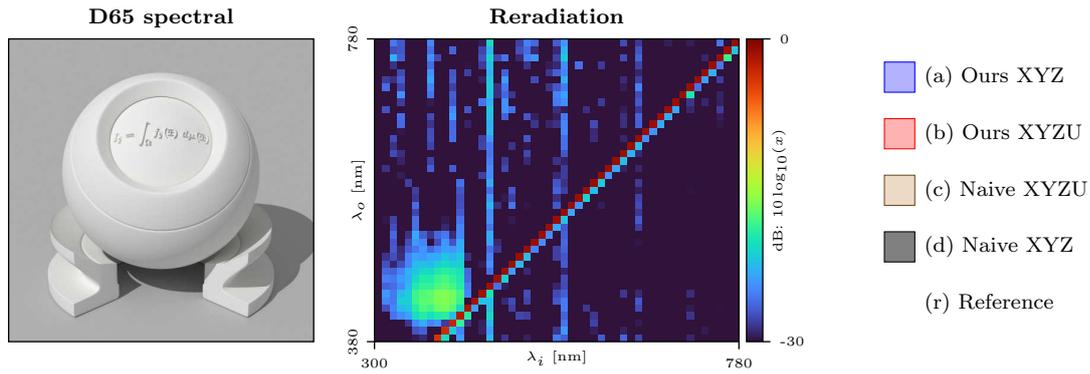
PFUJI5C



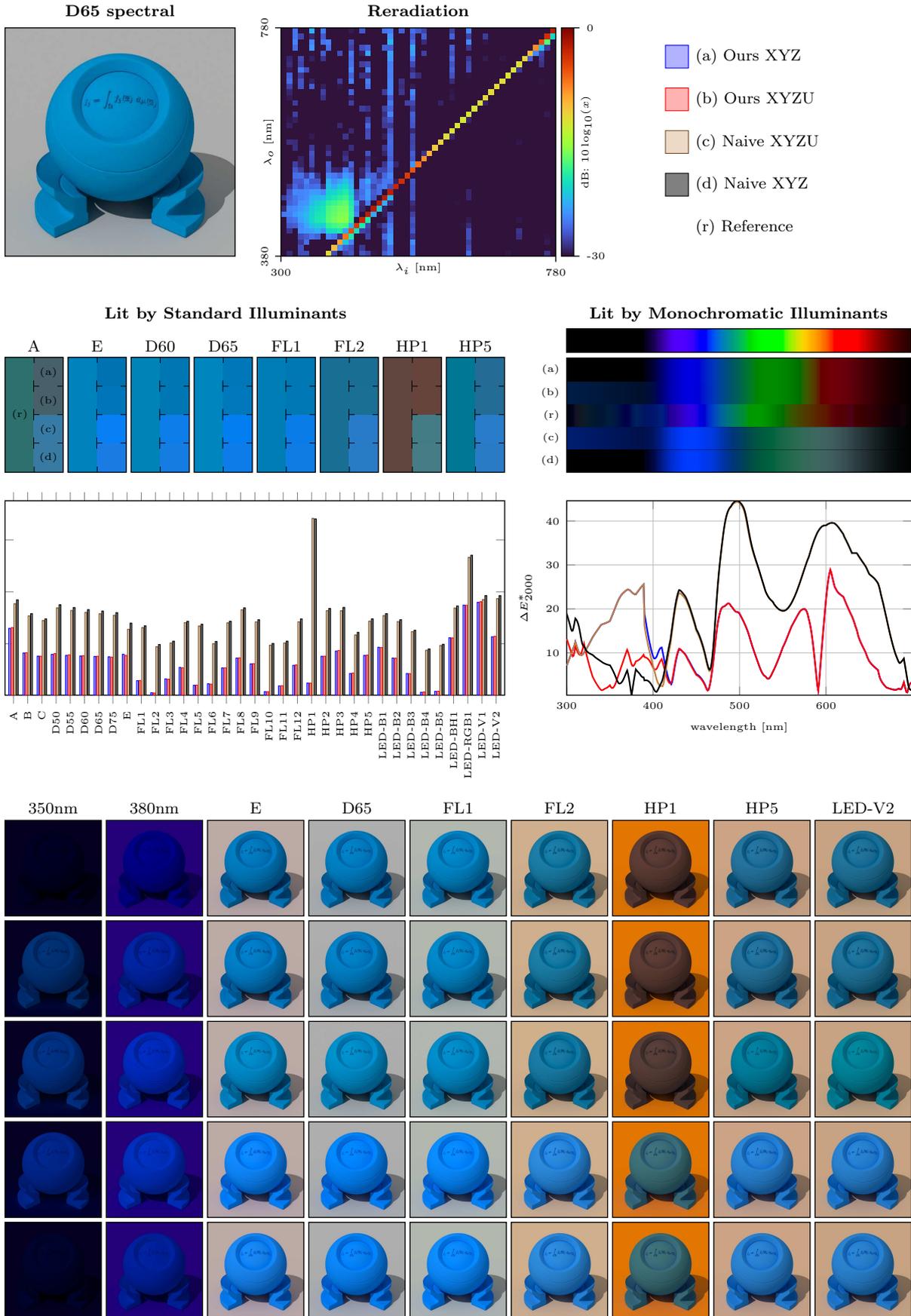
IXCPUPI



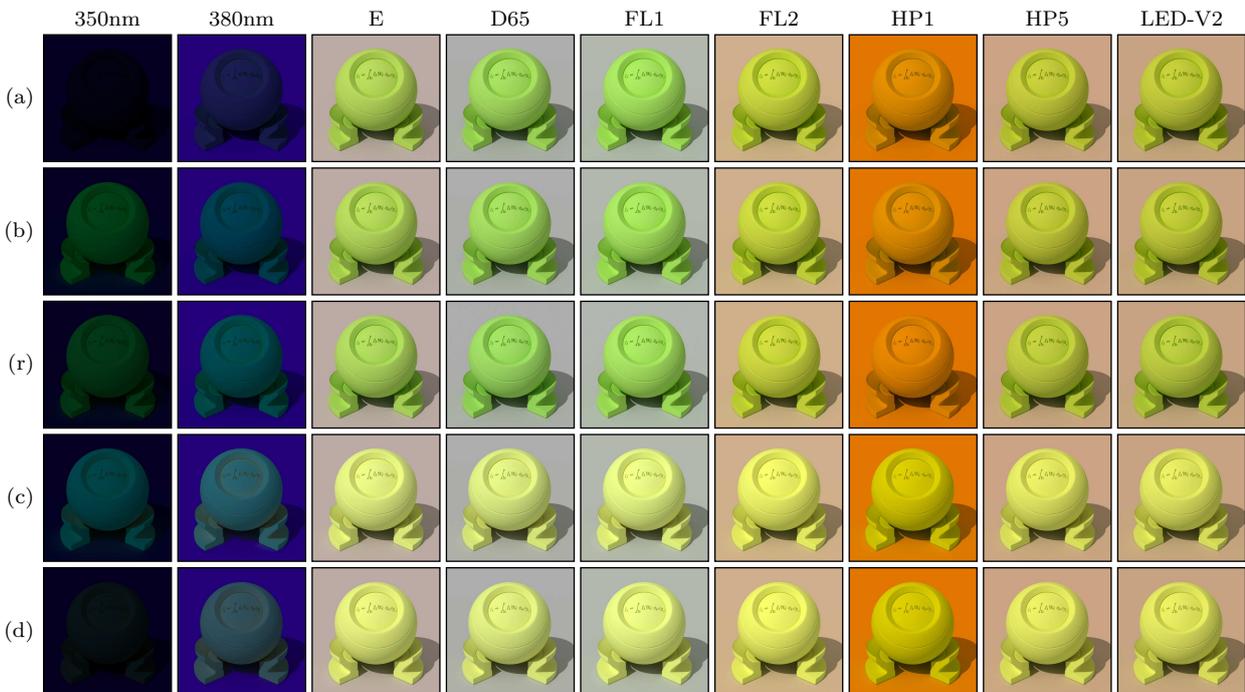
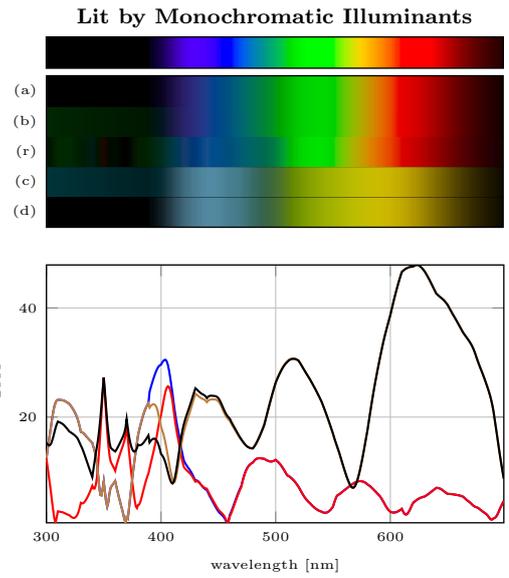
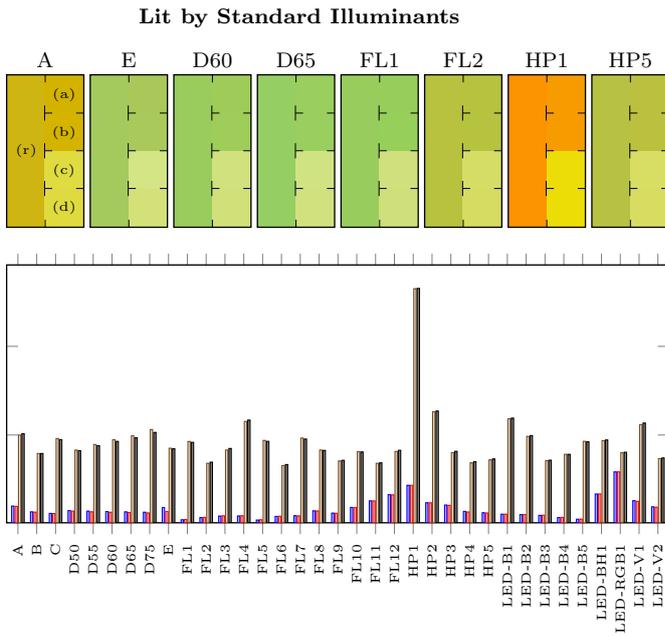
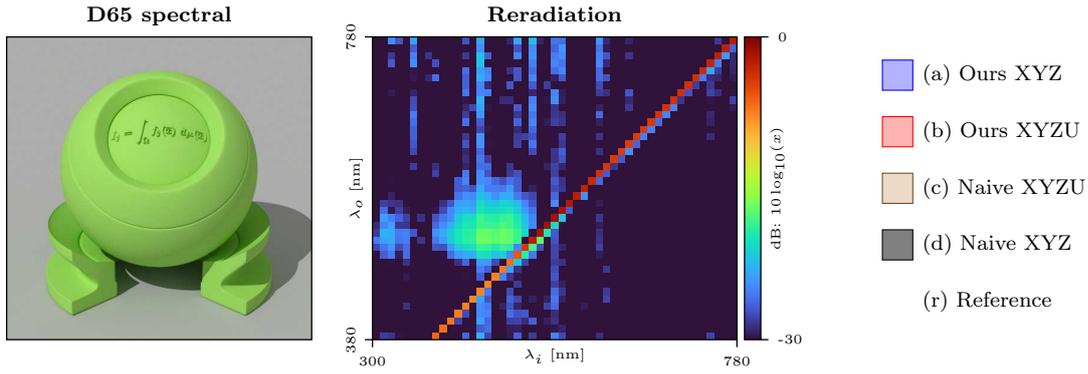
PLIWFWH



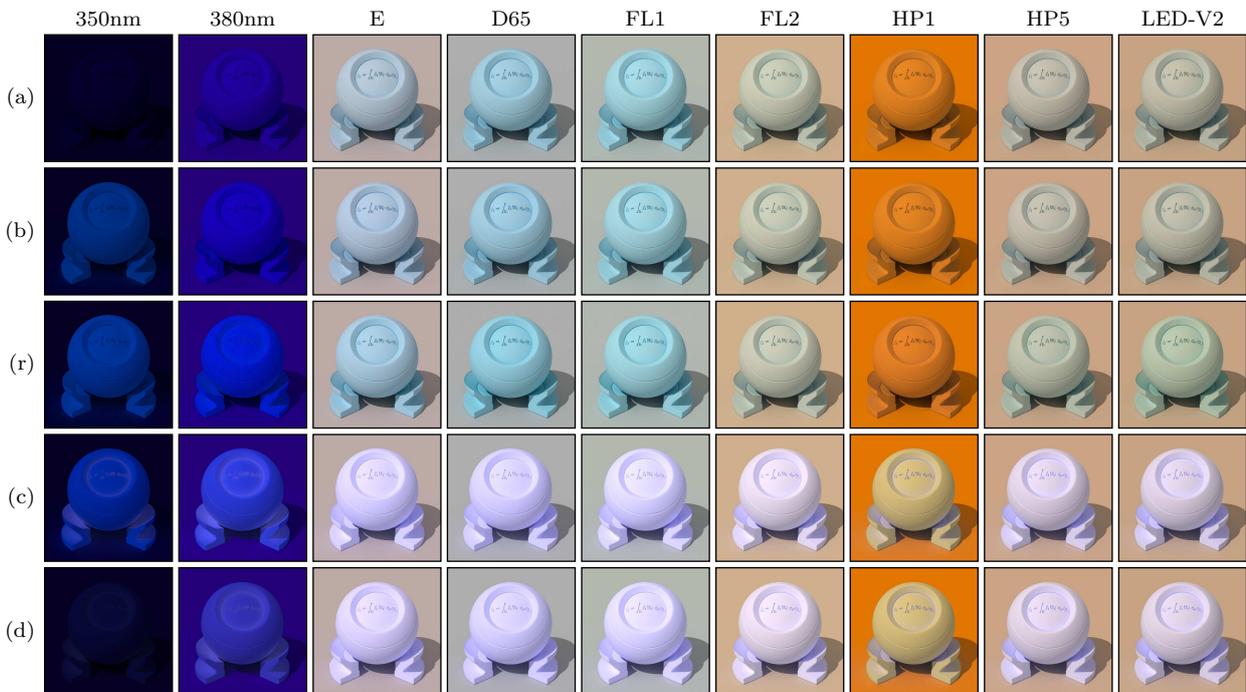
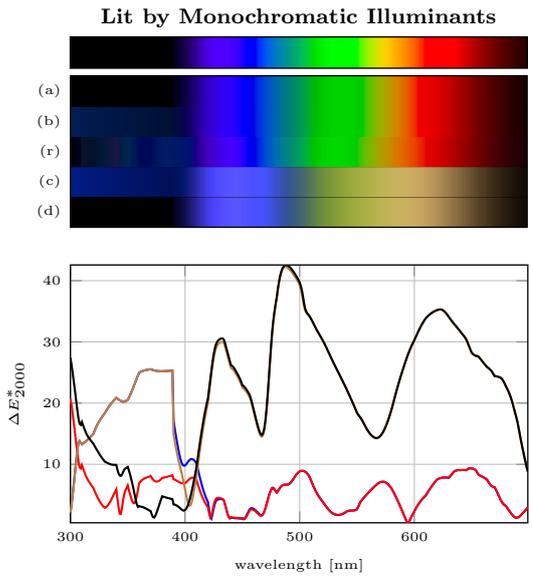
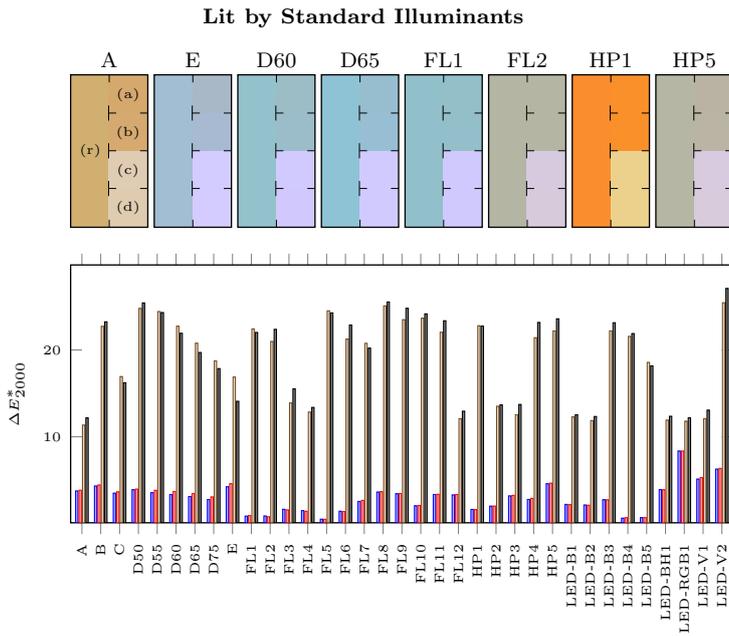
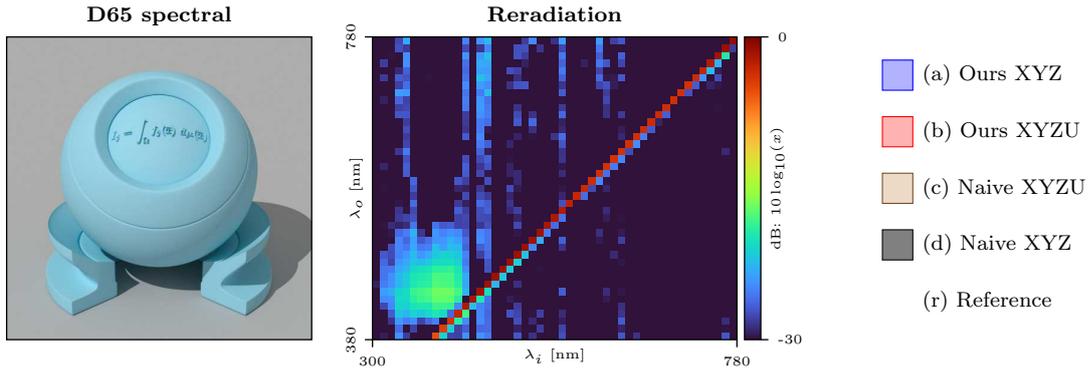
IXCCLBL



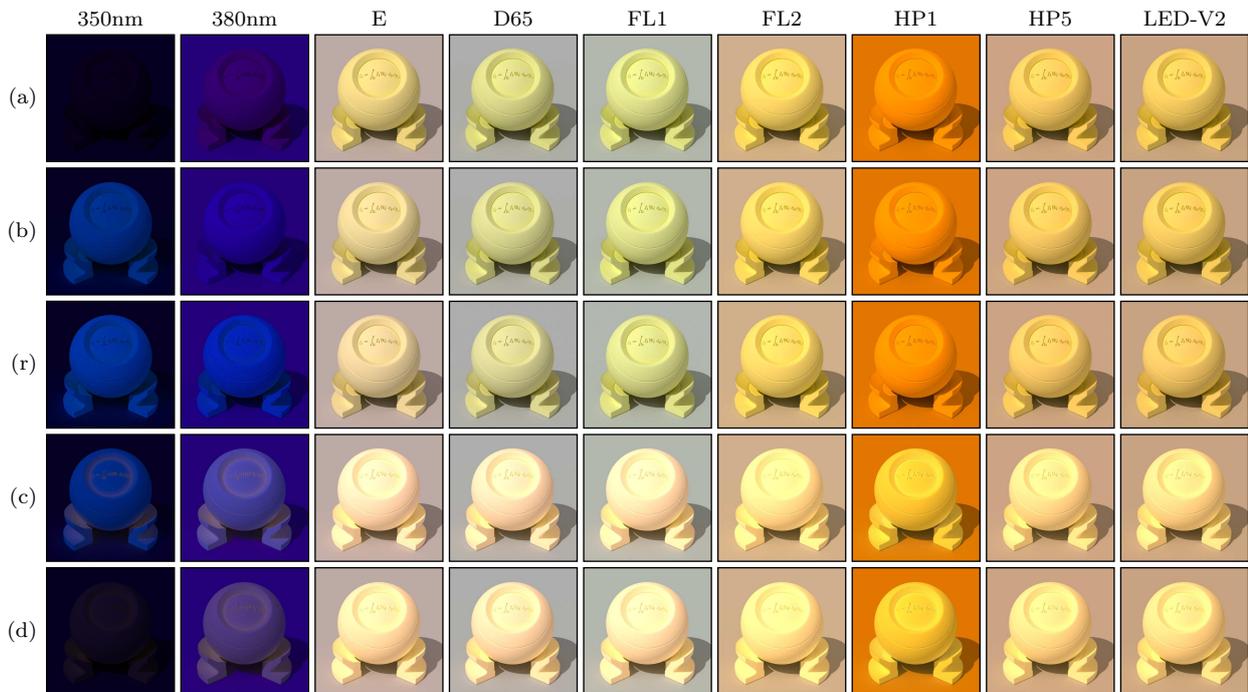
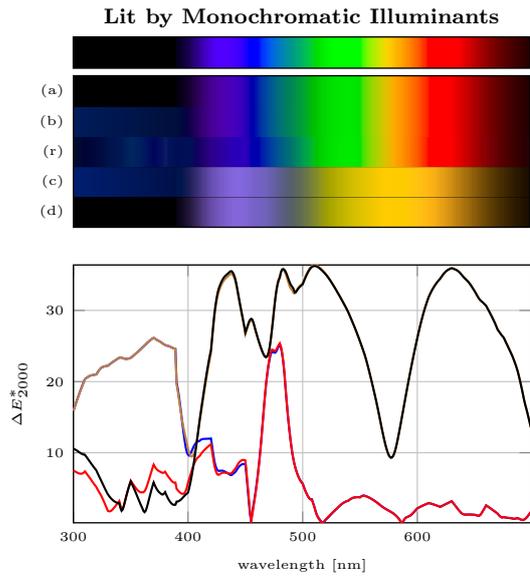
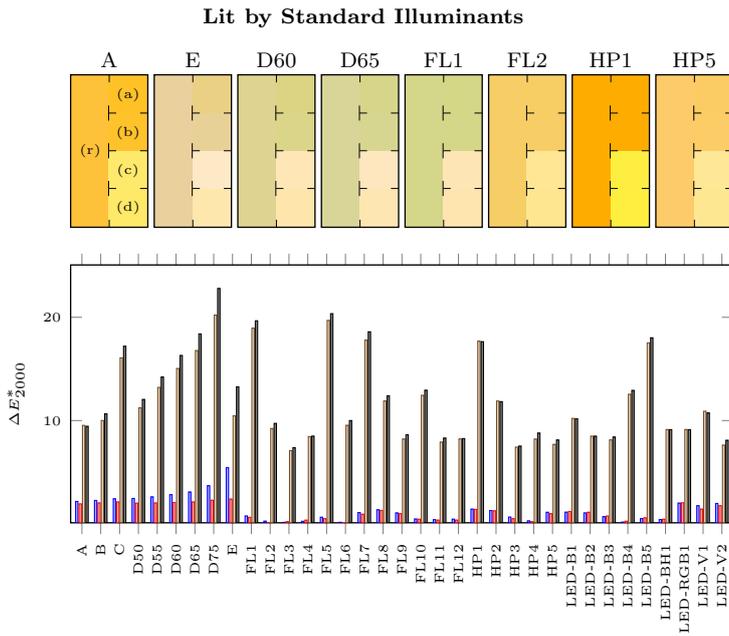
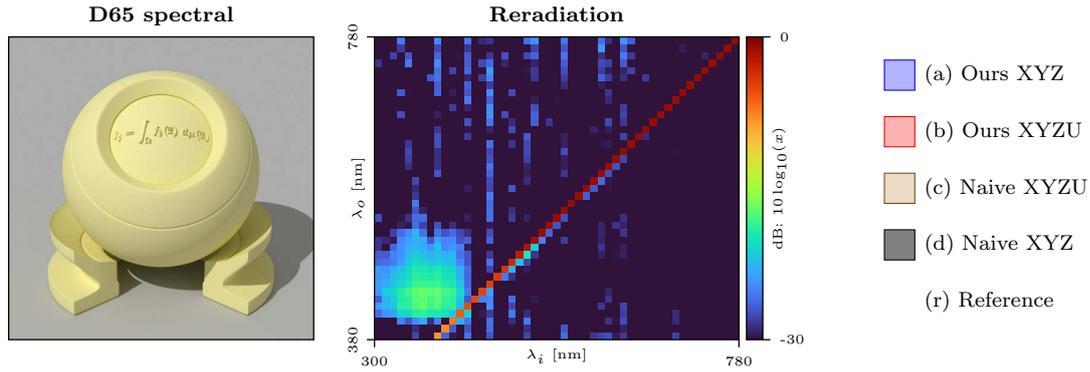
IXCAXPGR



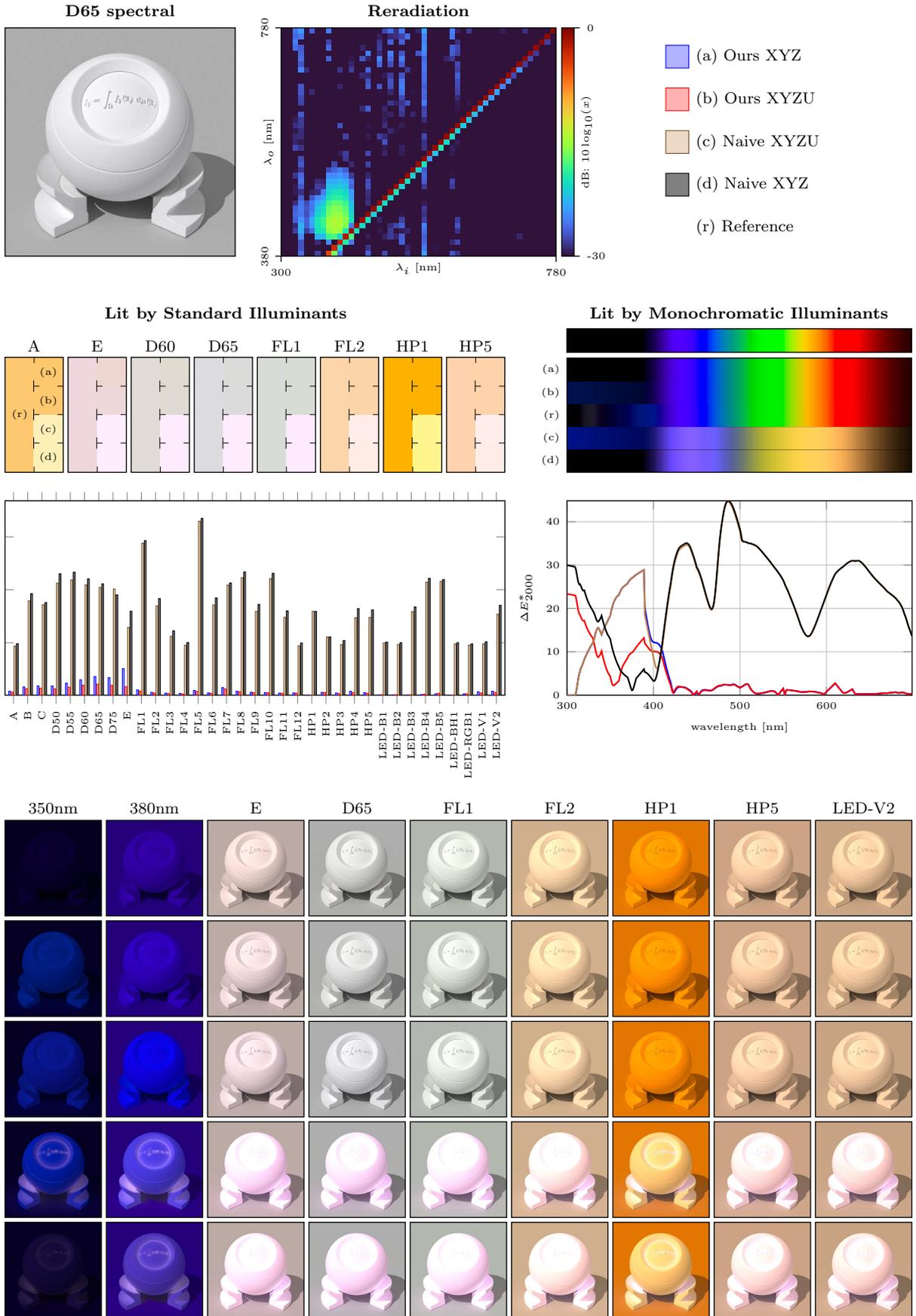
IXCBBLUE



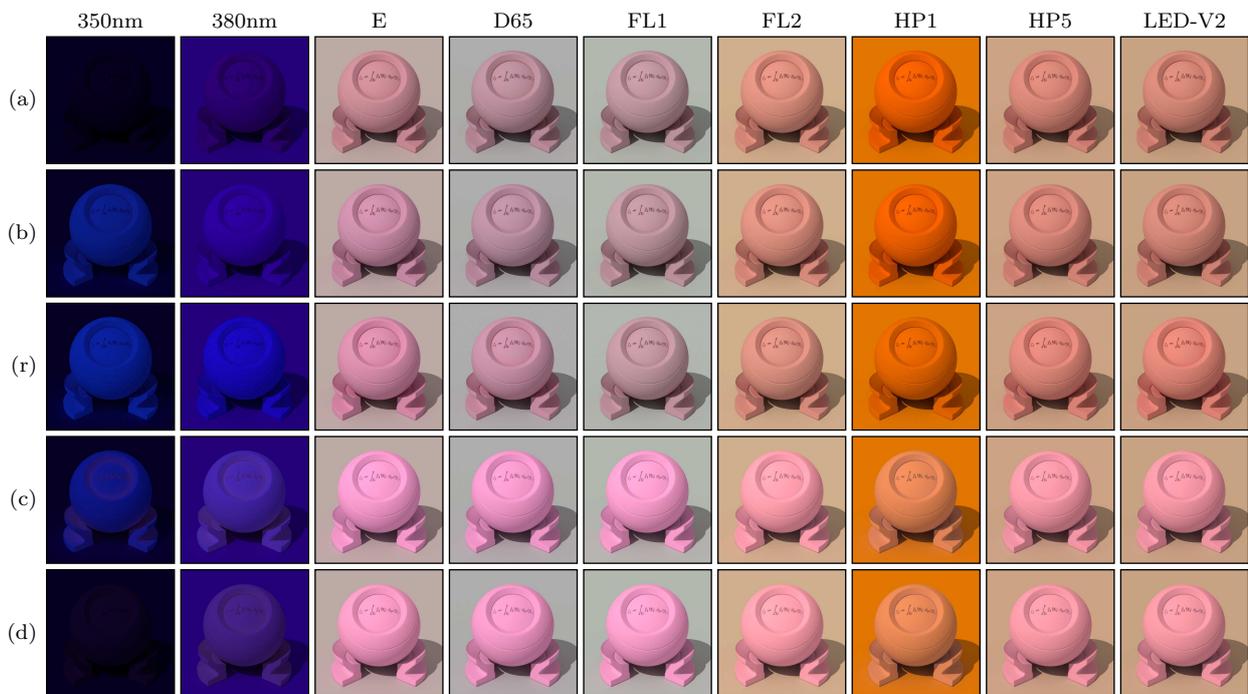
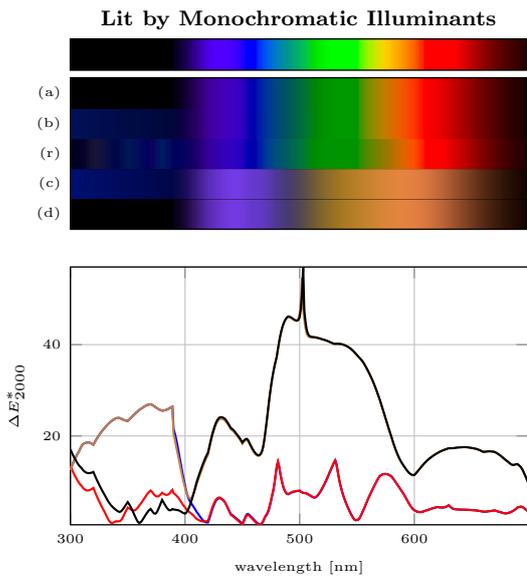
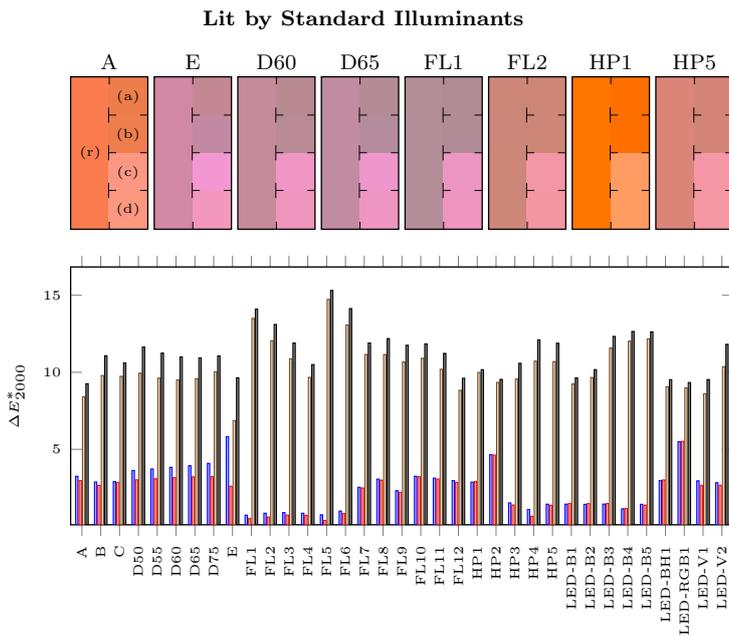
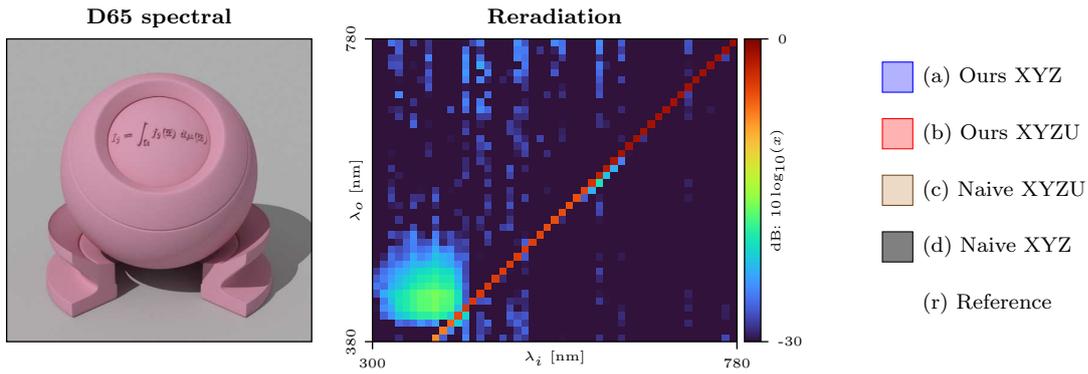
PXEROY5R



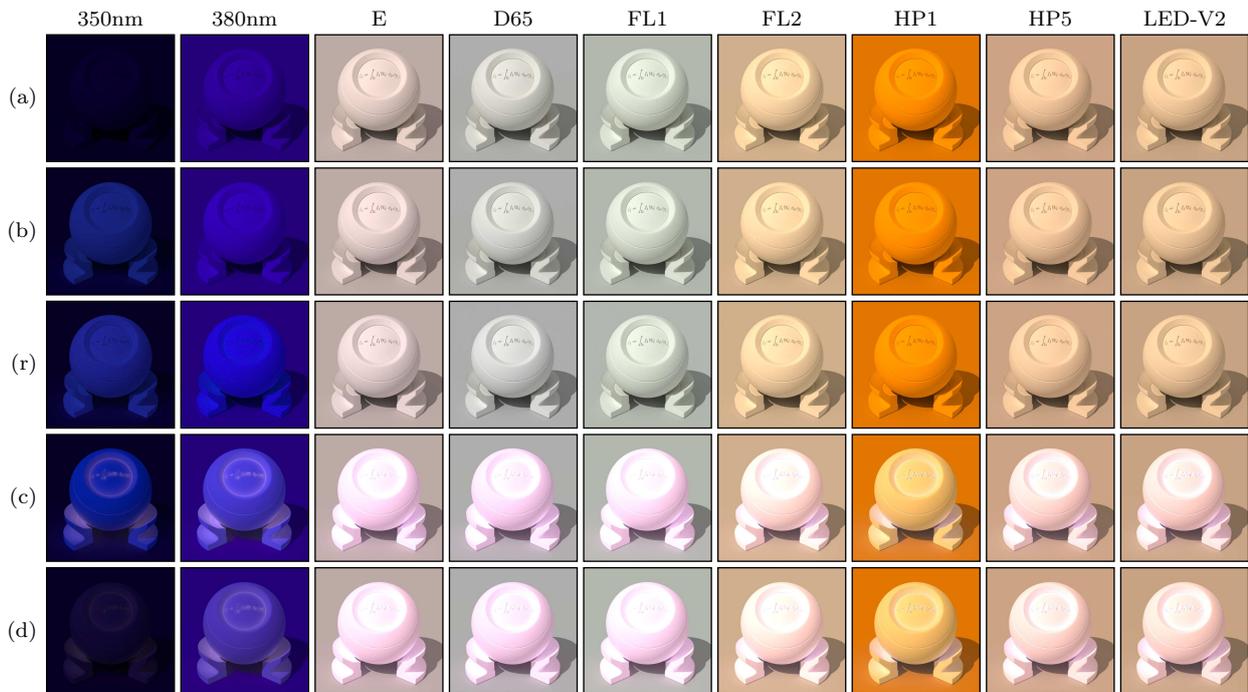
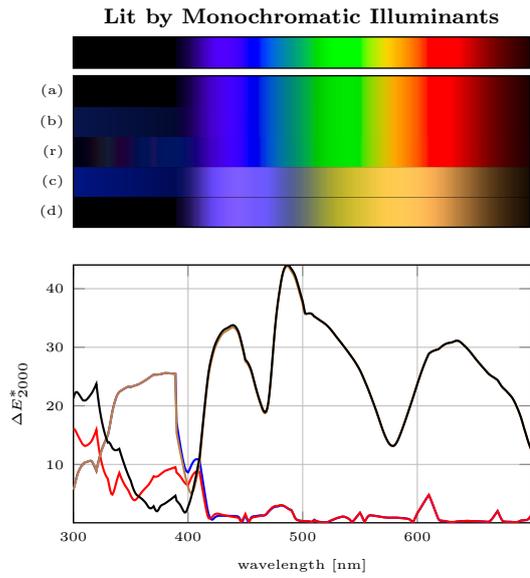
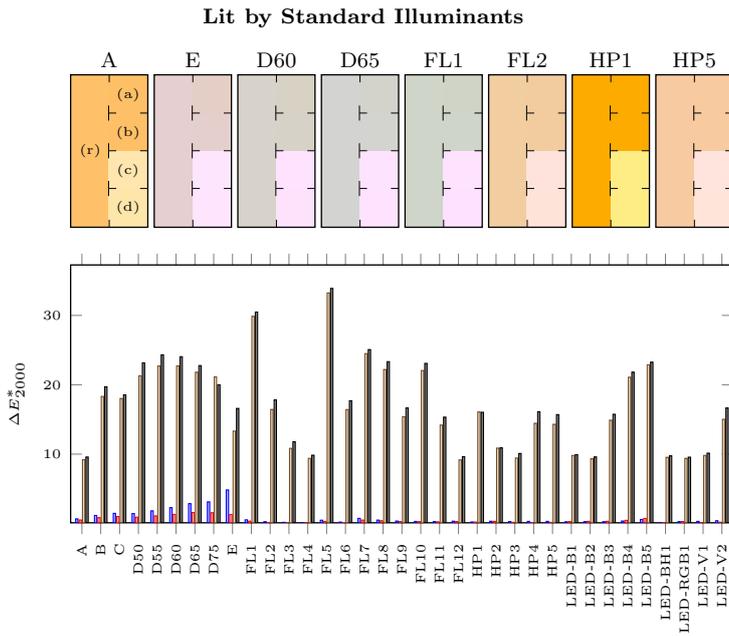
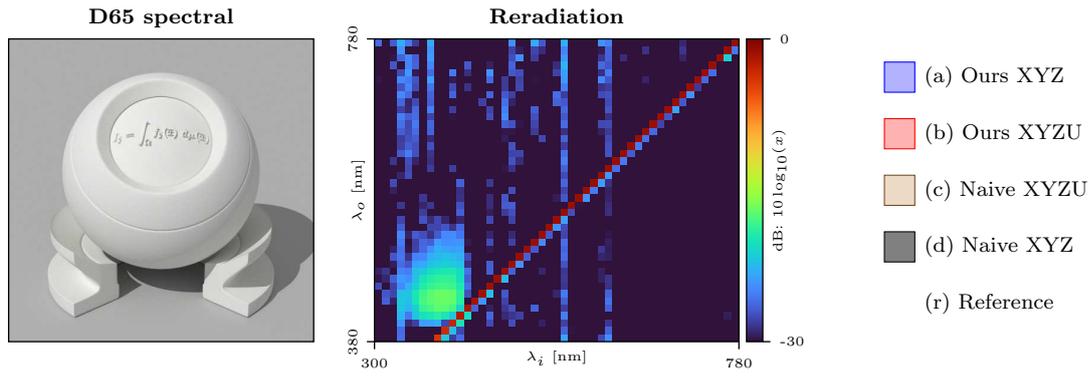
PKODXLWH



PXEROM5R

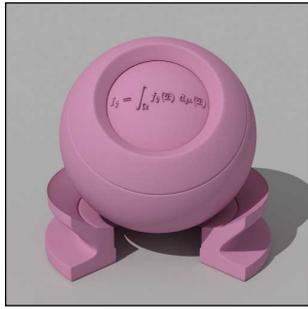


LITFWFH

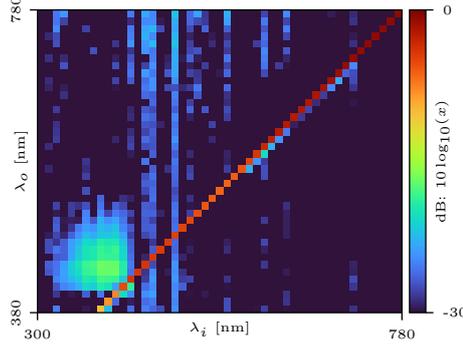


PFUJI5M

D65 spectral

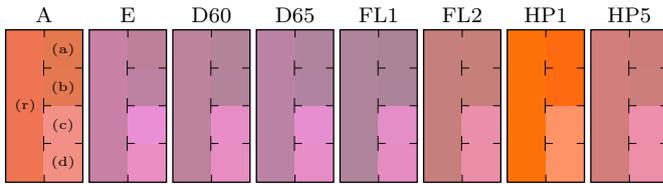


Reradiation

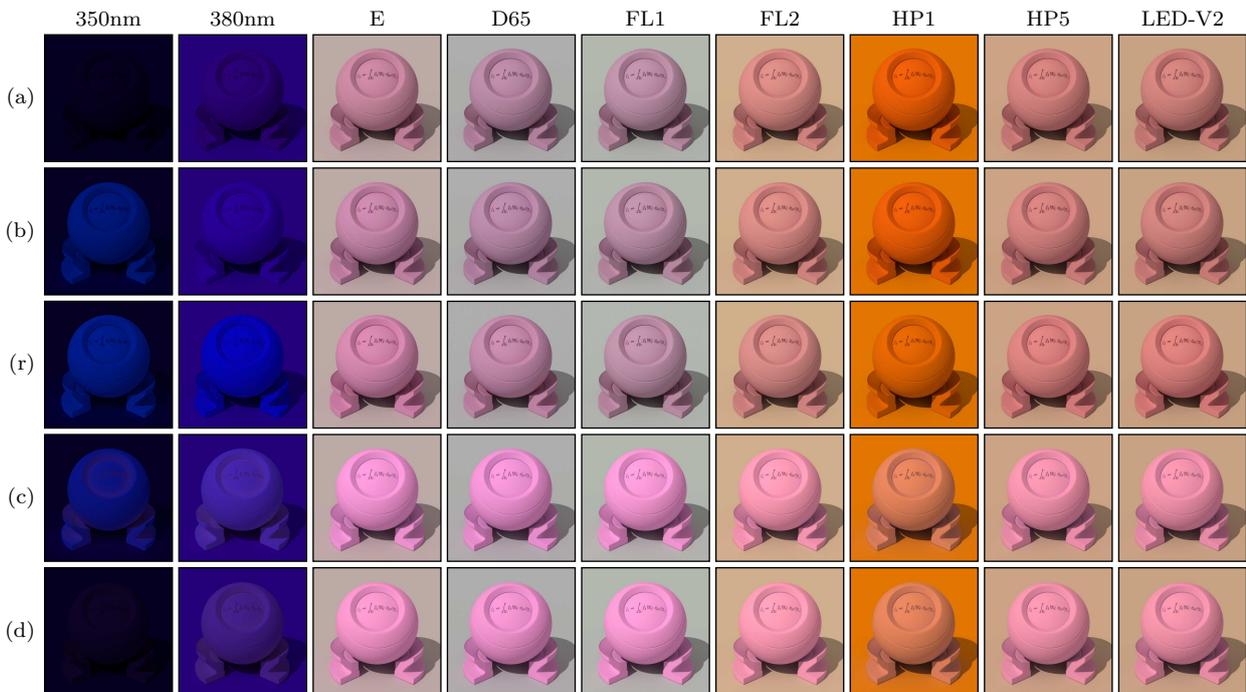
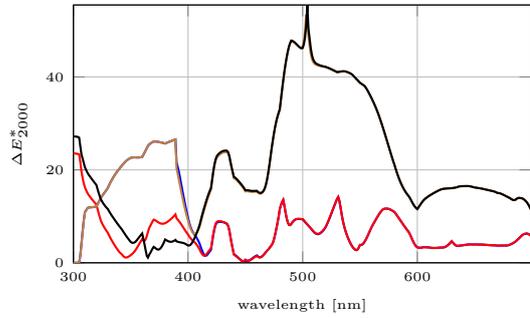
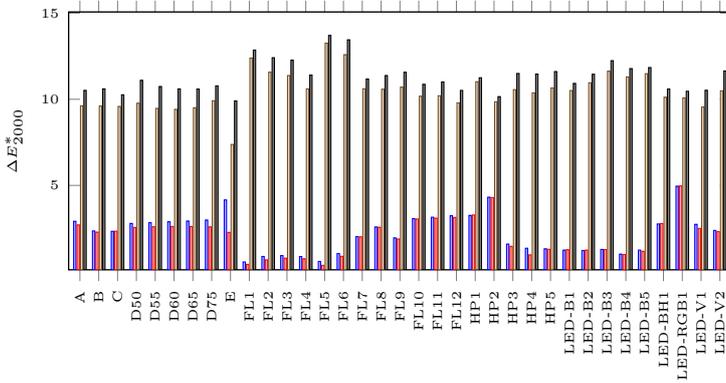
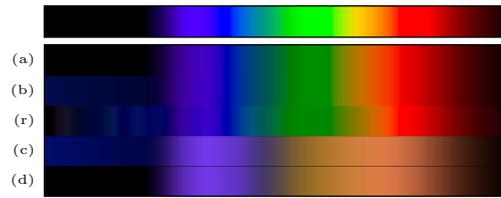


- (a) Ours XYZ
- (b) Ours XYZU
- (c) Naive XYZU
- (d) Naive XYZ
- (r) Reference

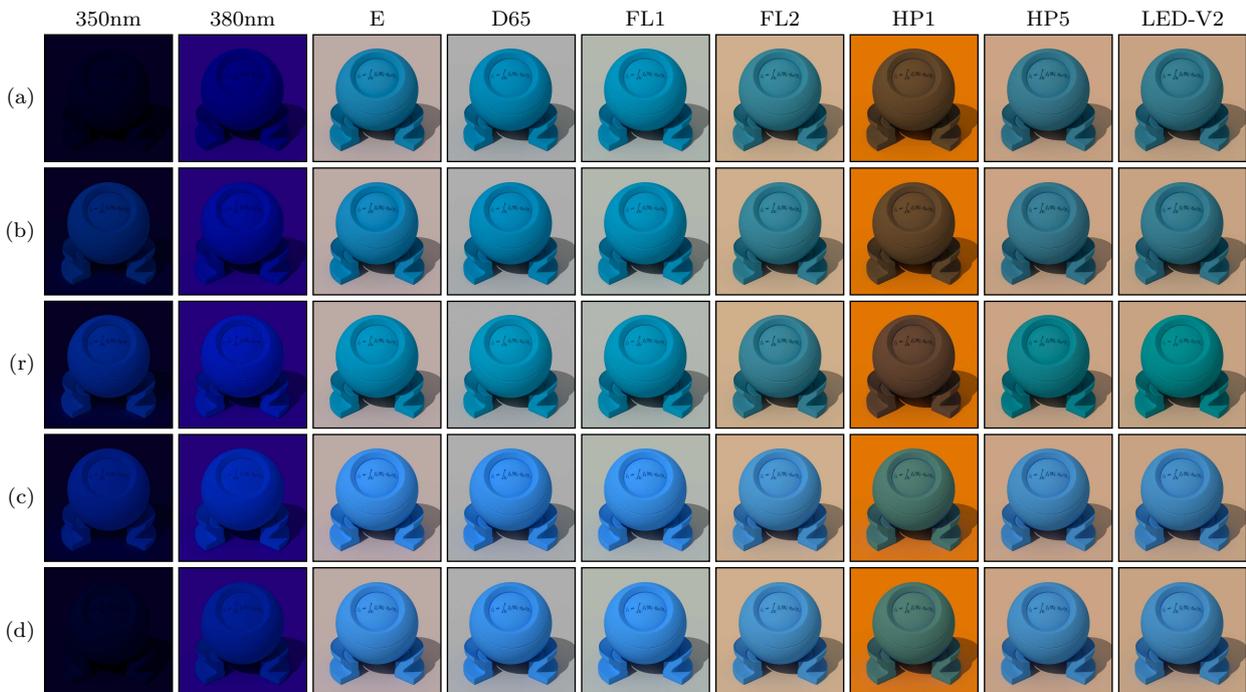
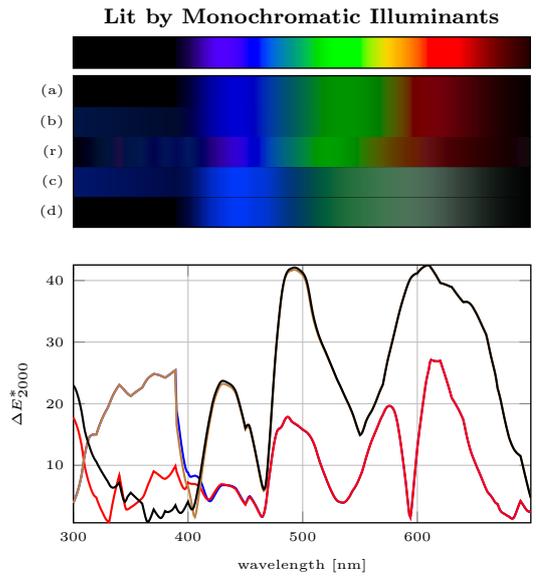
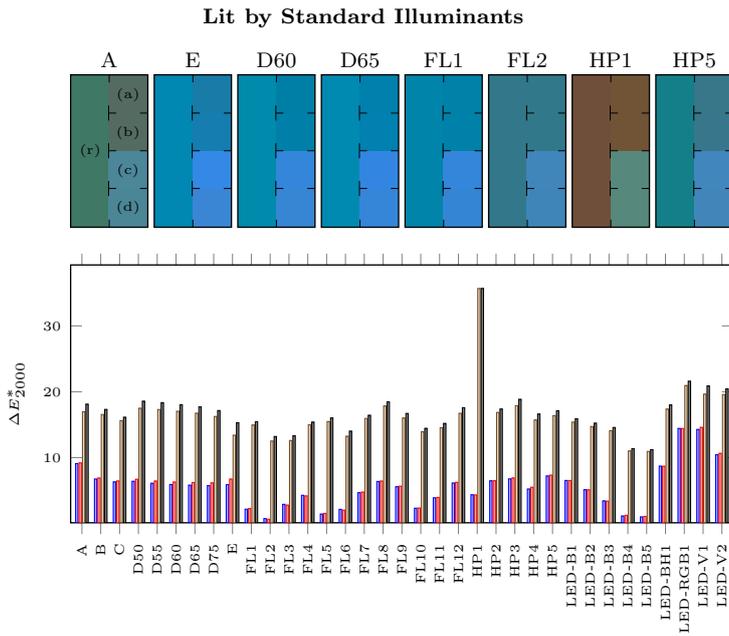
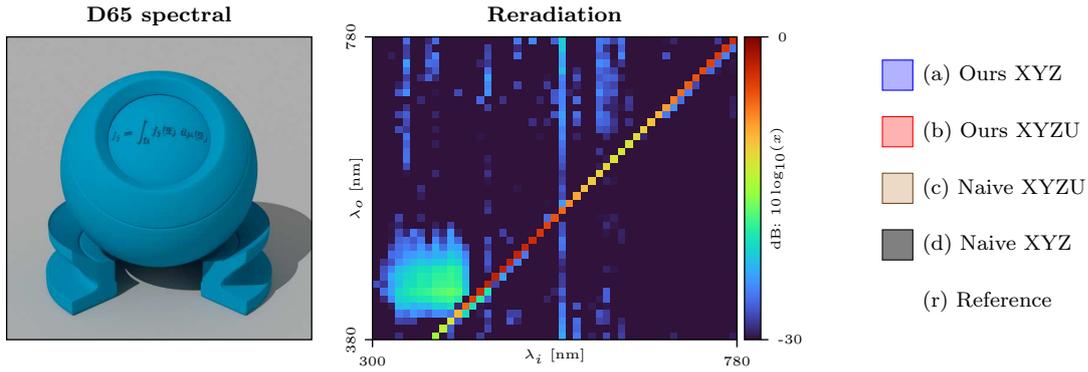
Lit by Standard Illuminants



Lit by Monochromatic Illuminants



PHP8HP1C

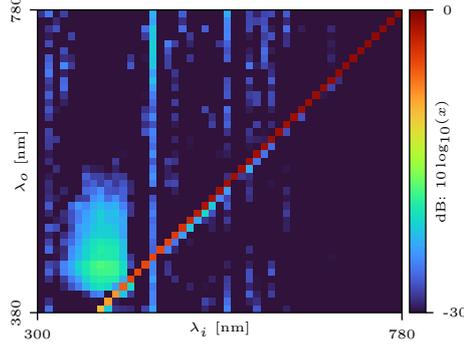


PFUJI5Y

D65 spectral

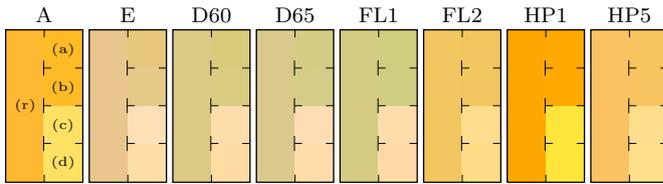


Reradiation

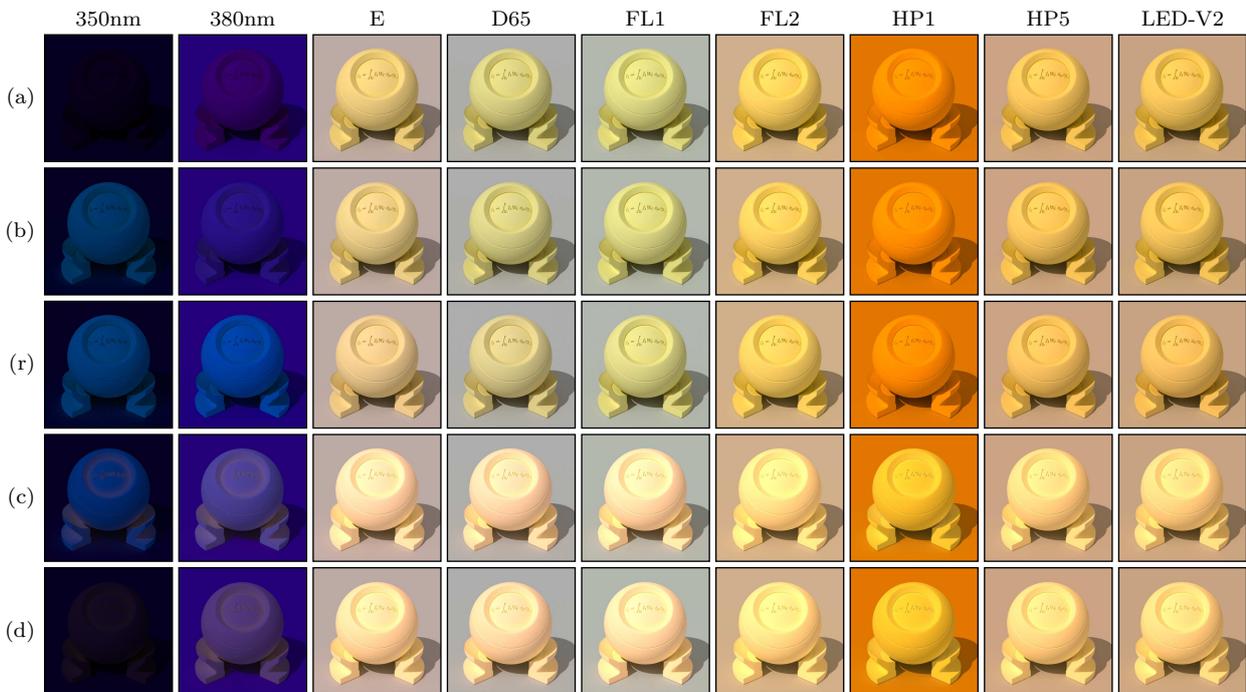
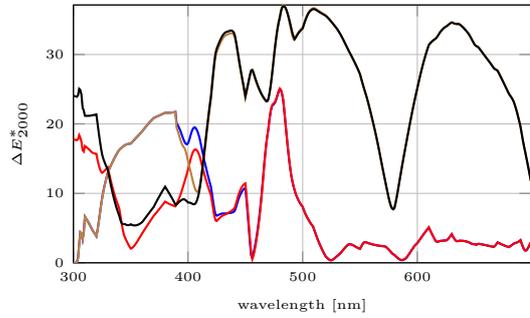
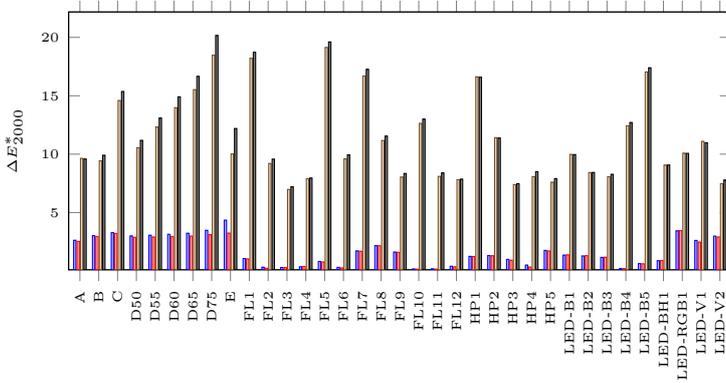
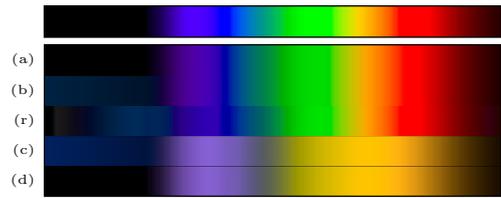


- (a) Ours XYZ
- (b) Ours XYZU
- (c) Naive XYZU
- (d) Naive XYZ
- (r) Reference

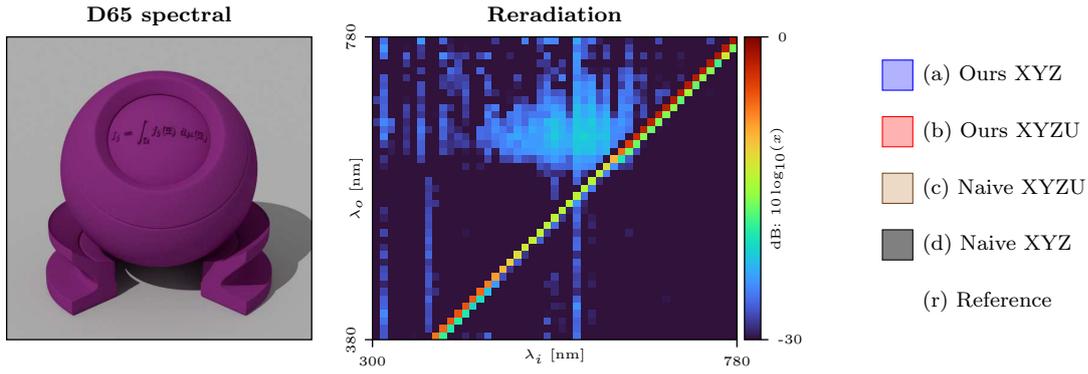
Lit by Standard Illuminants



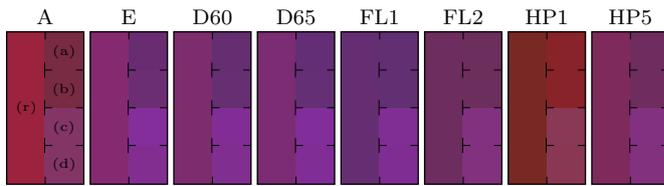
Lit by Monochromatic Illuminants



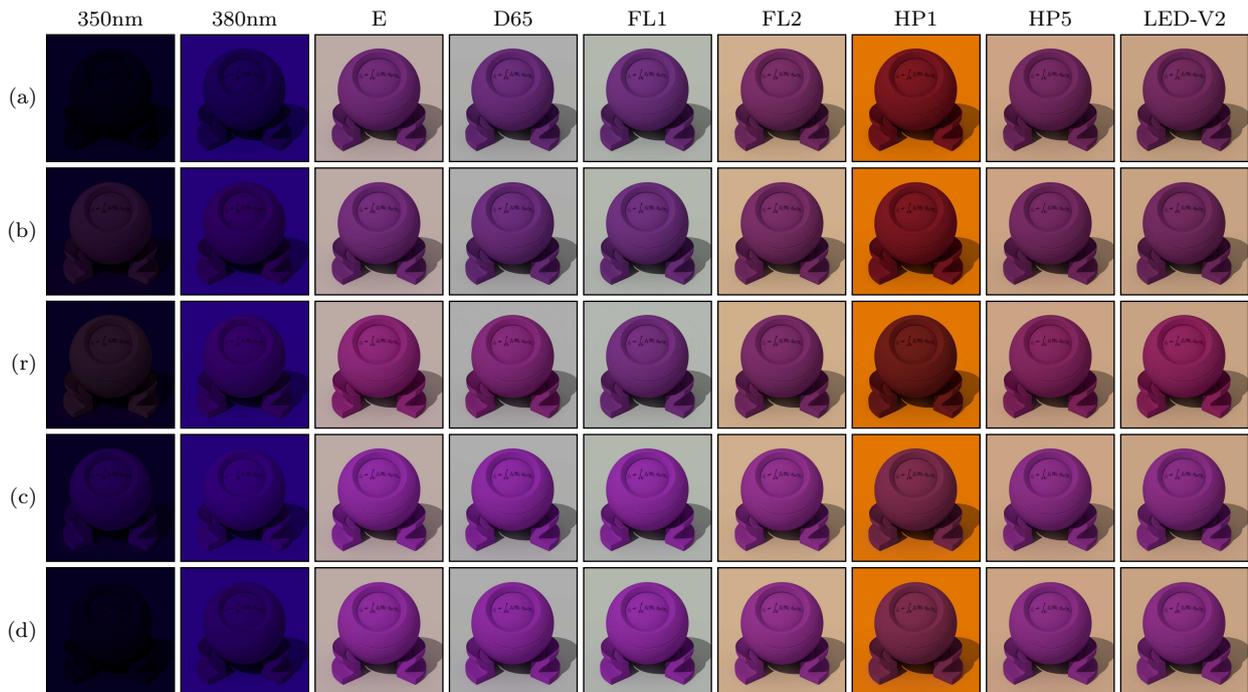
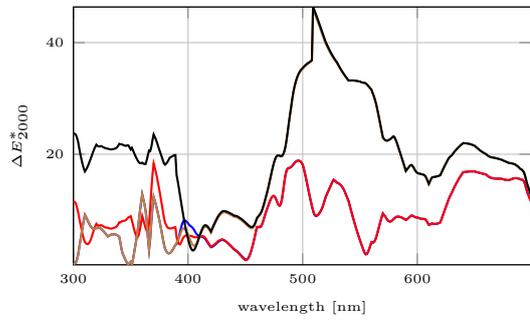
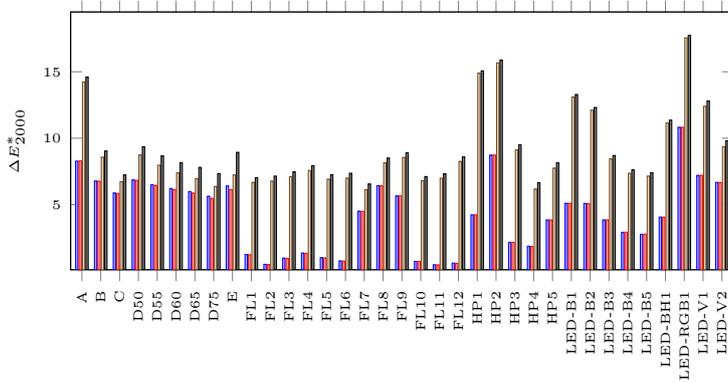
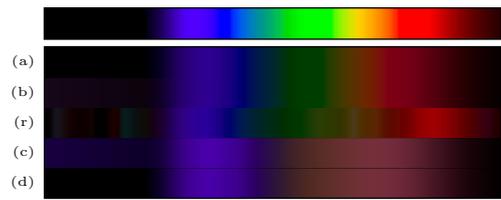
POLYPUR



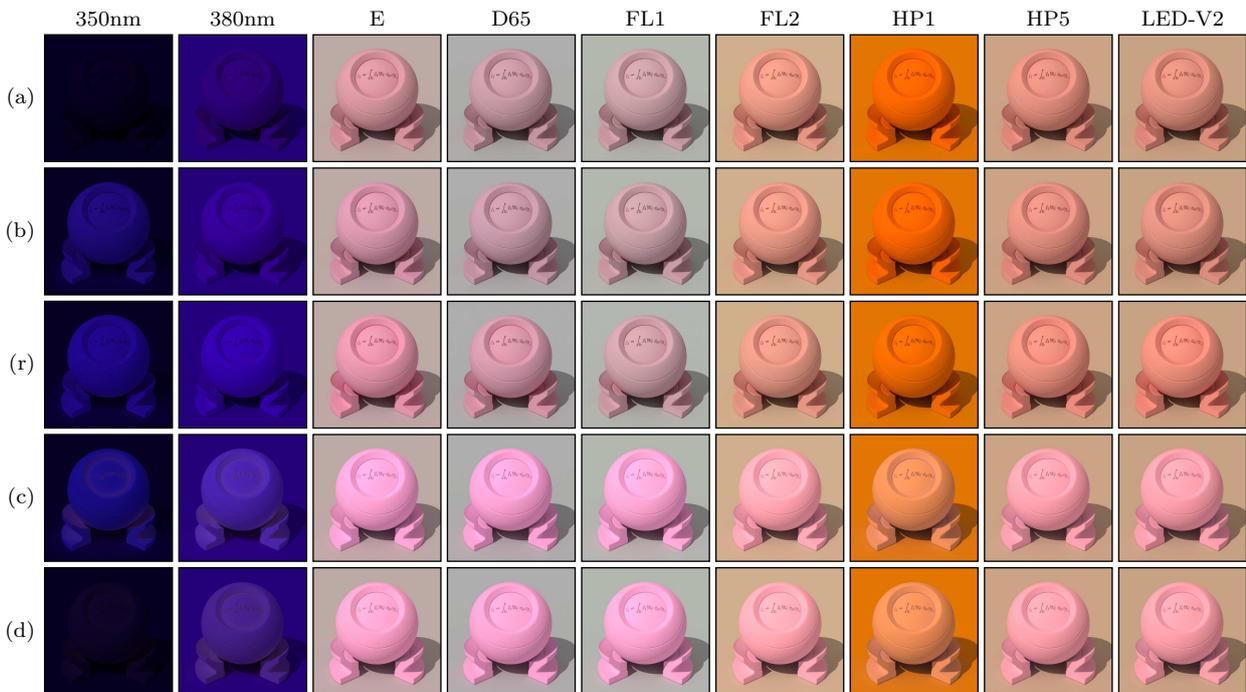
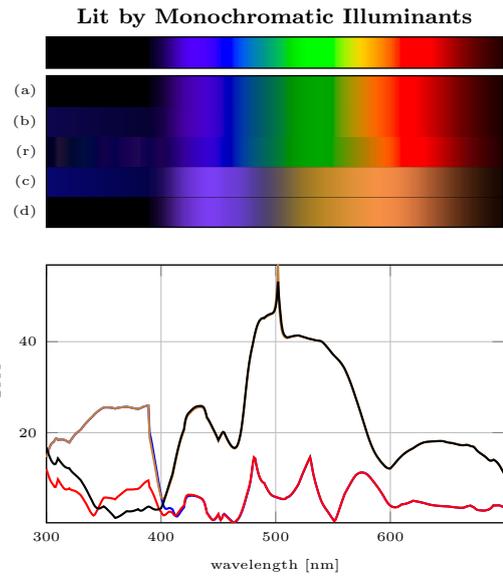
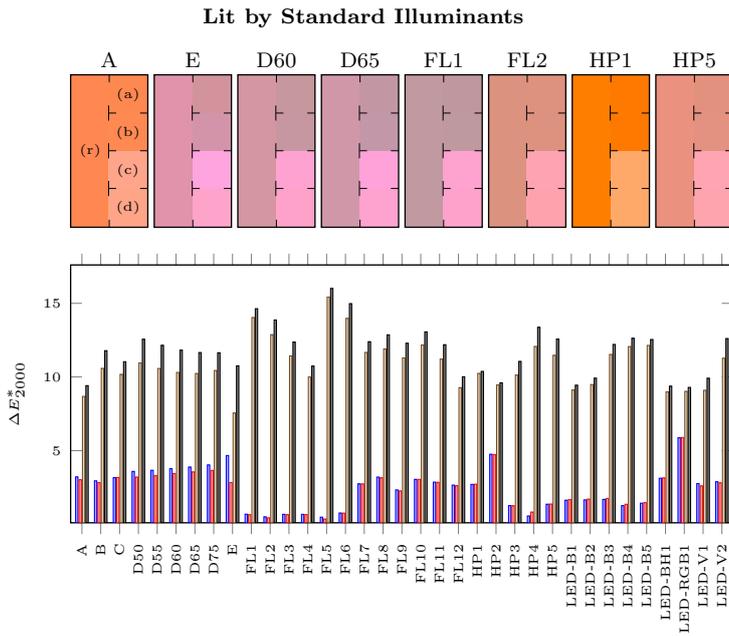
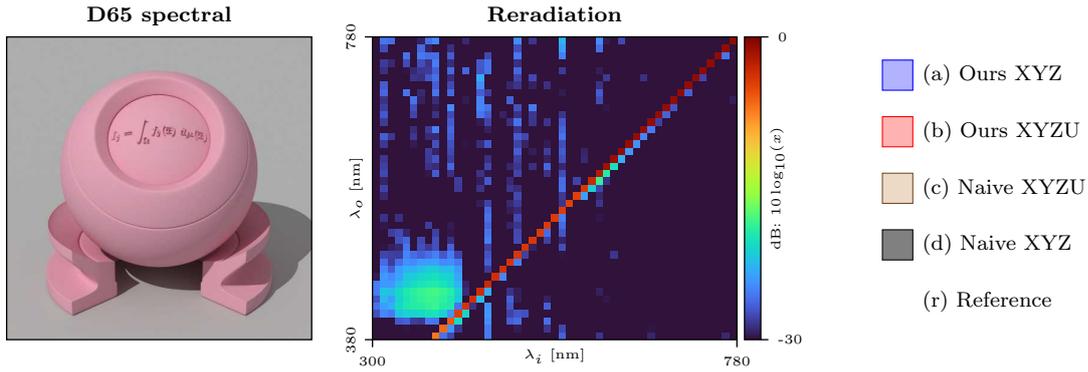
Lit by Standard Illuminants



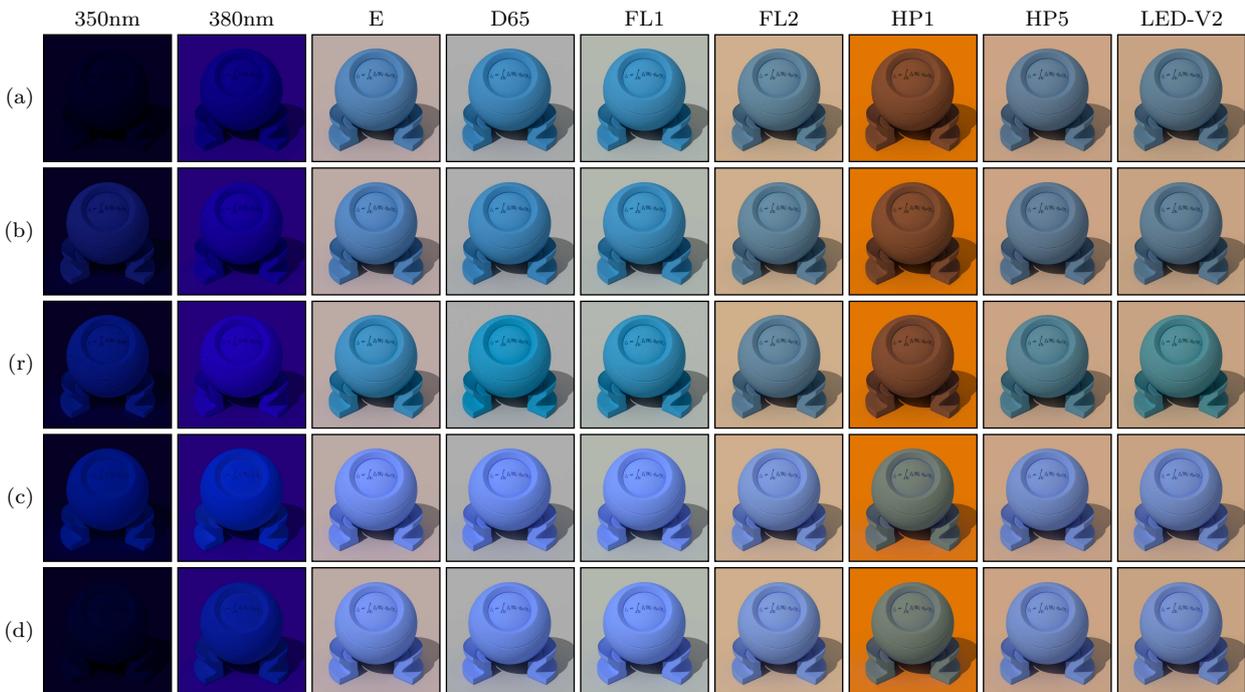
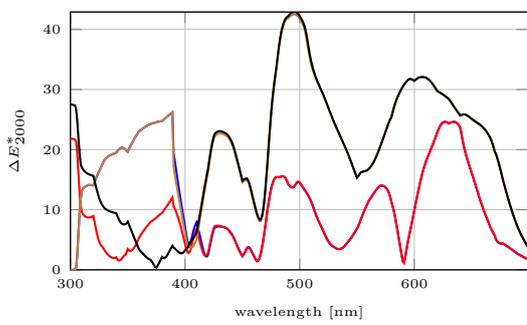
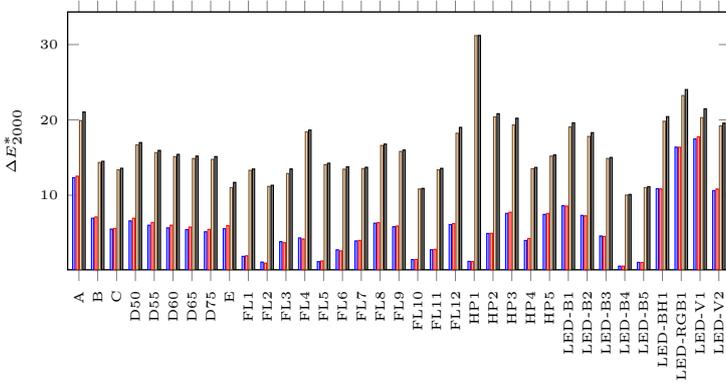
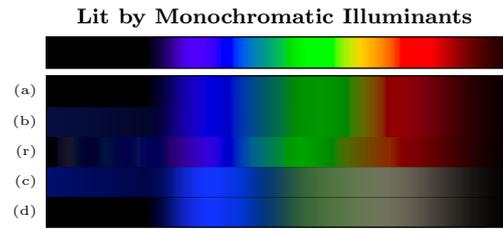
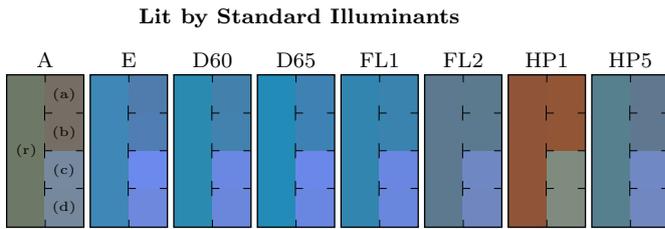
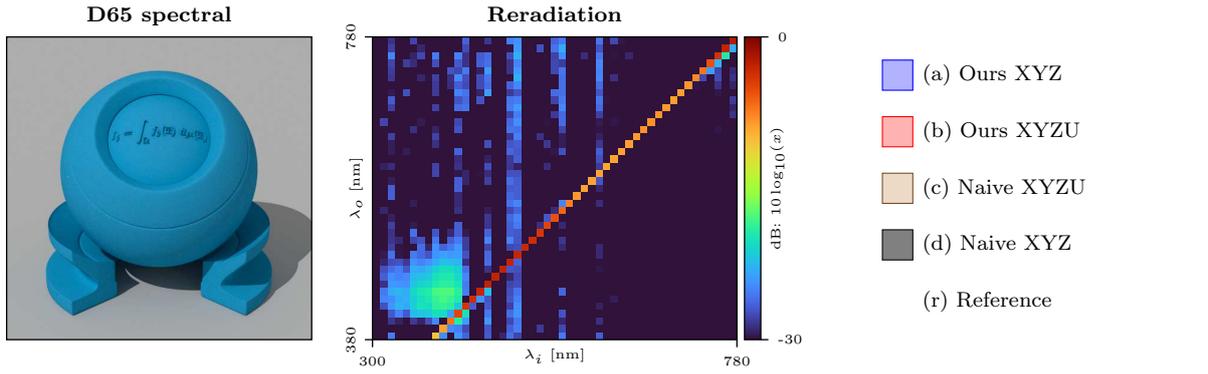
Lit by Monochromatic Illuminants



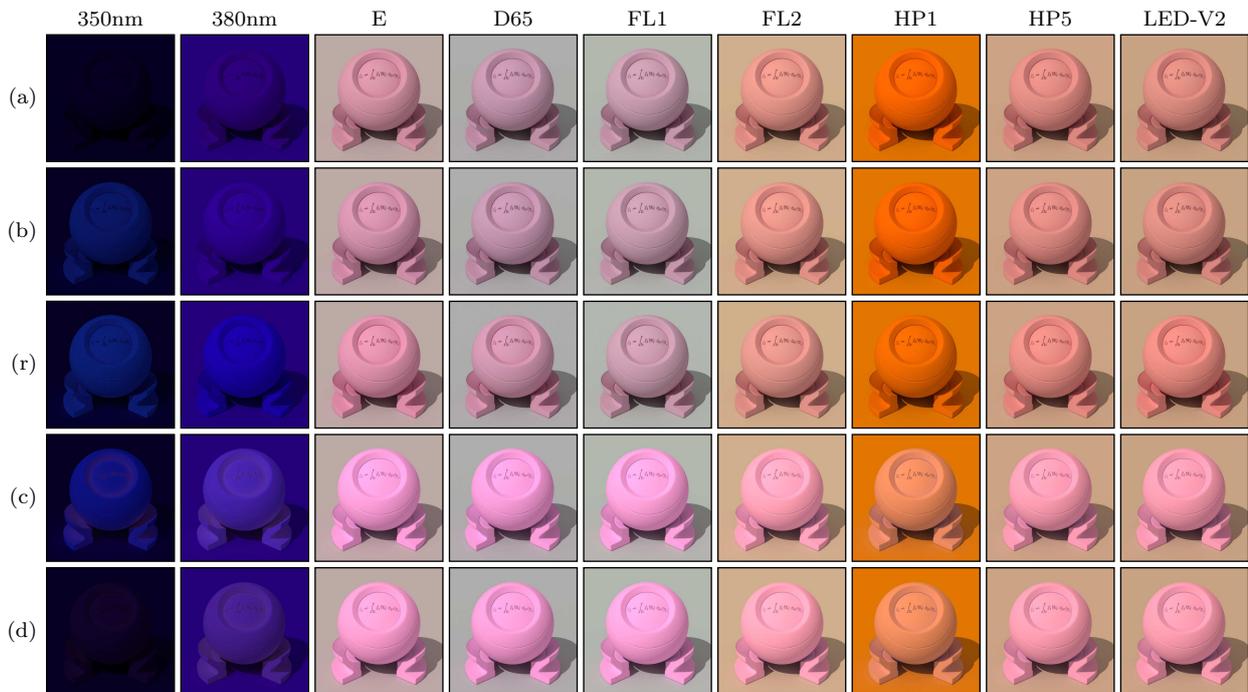
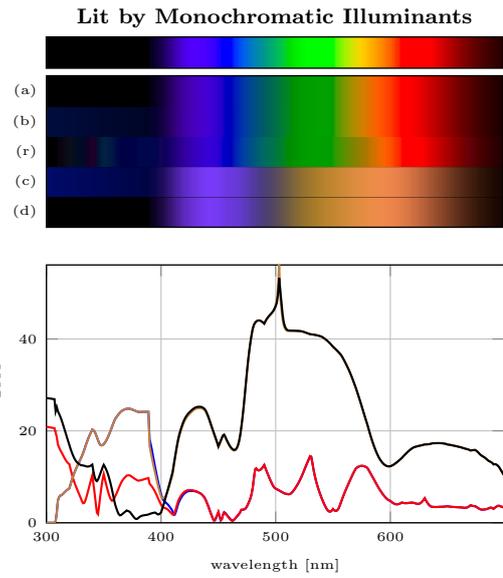
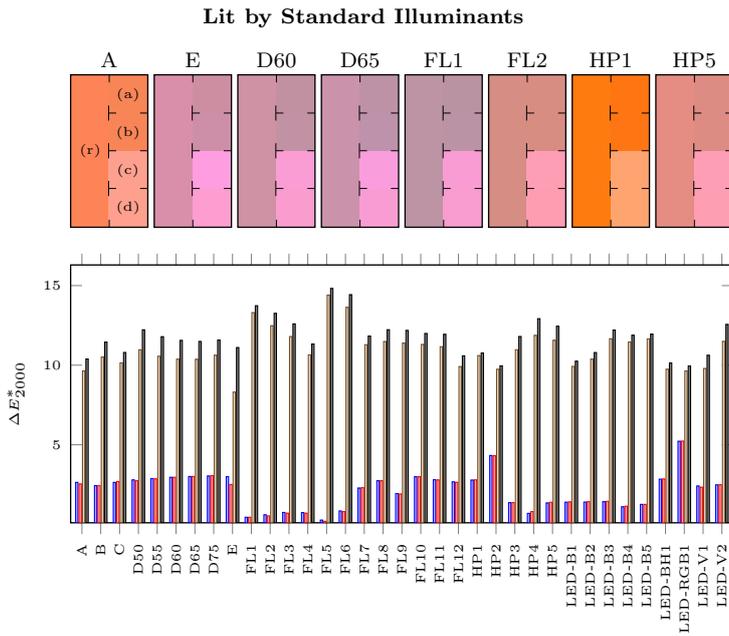
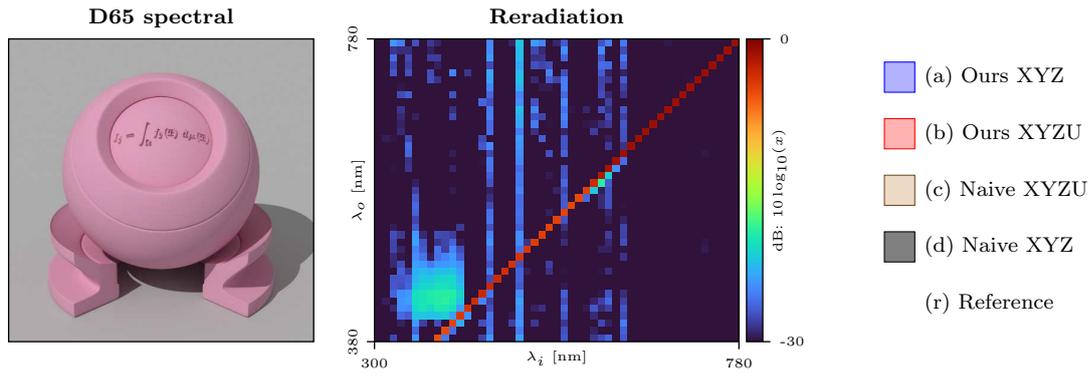
PHP8RV5M



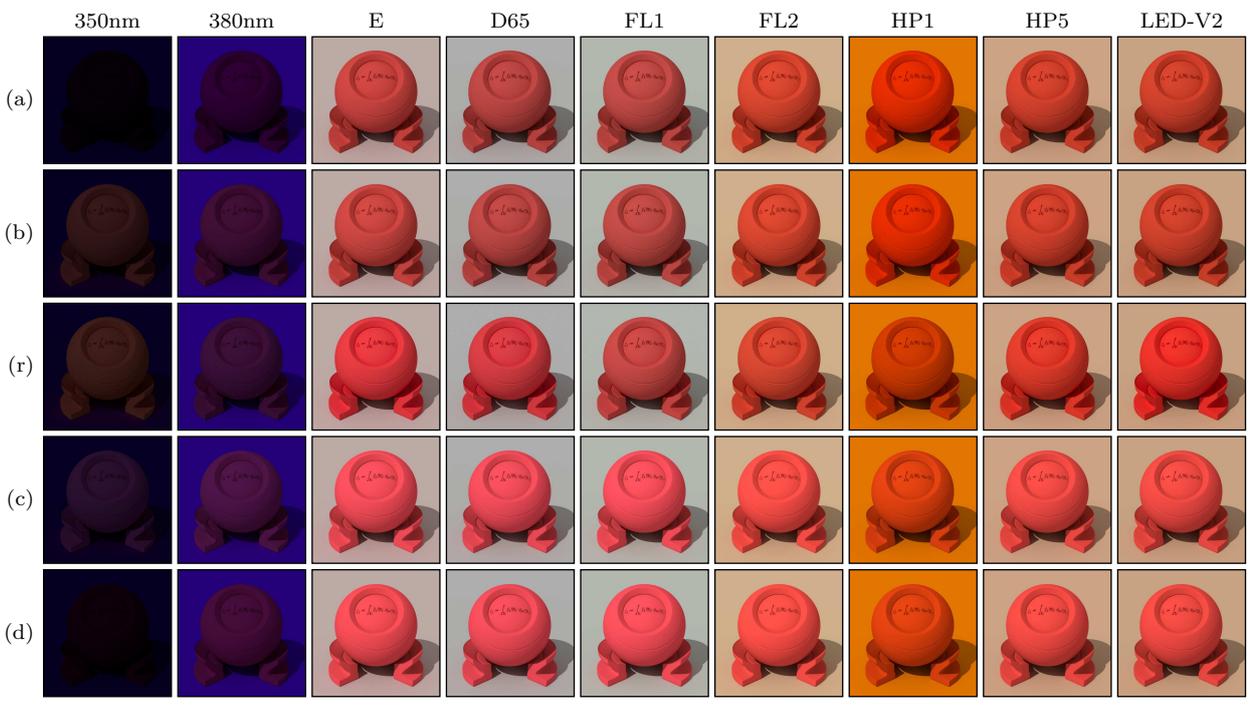
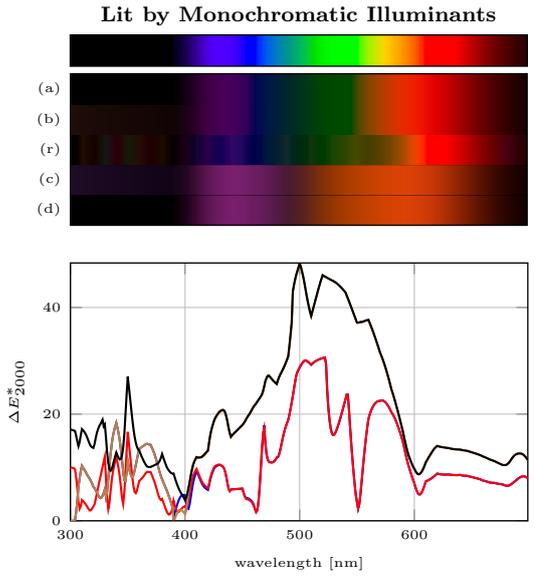
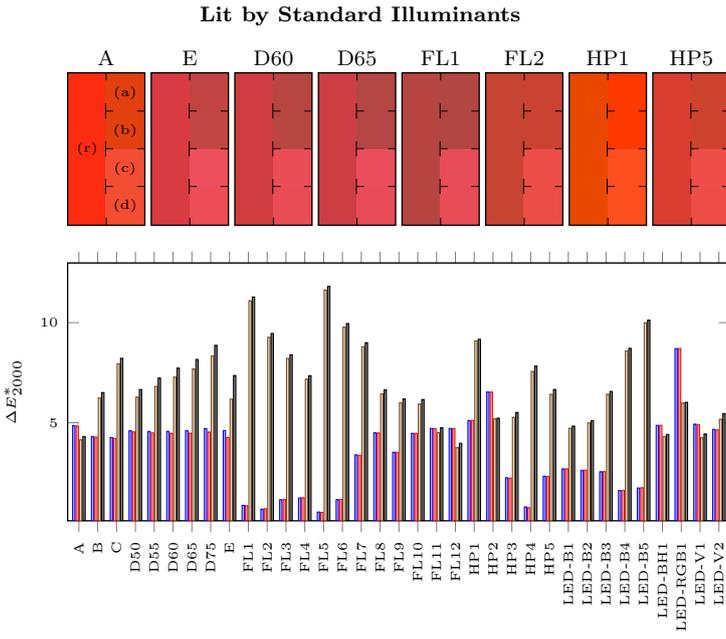
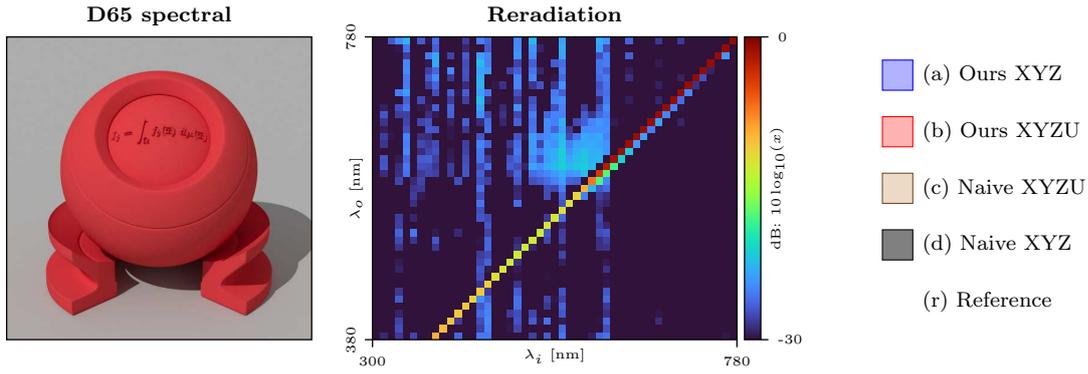
PXEROC5R



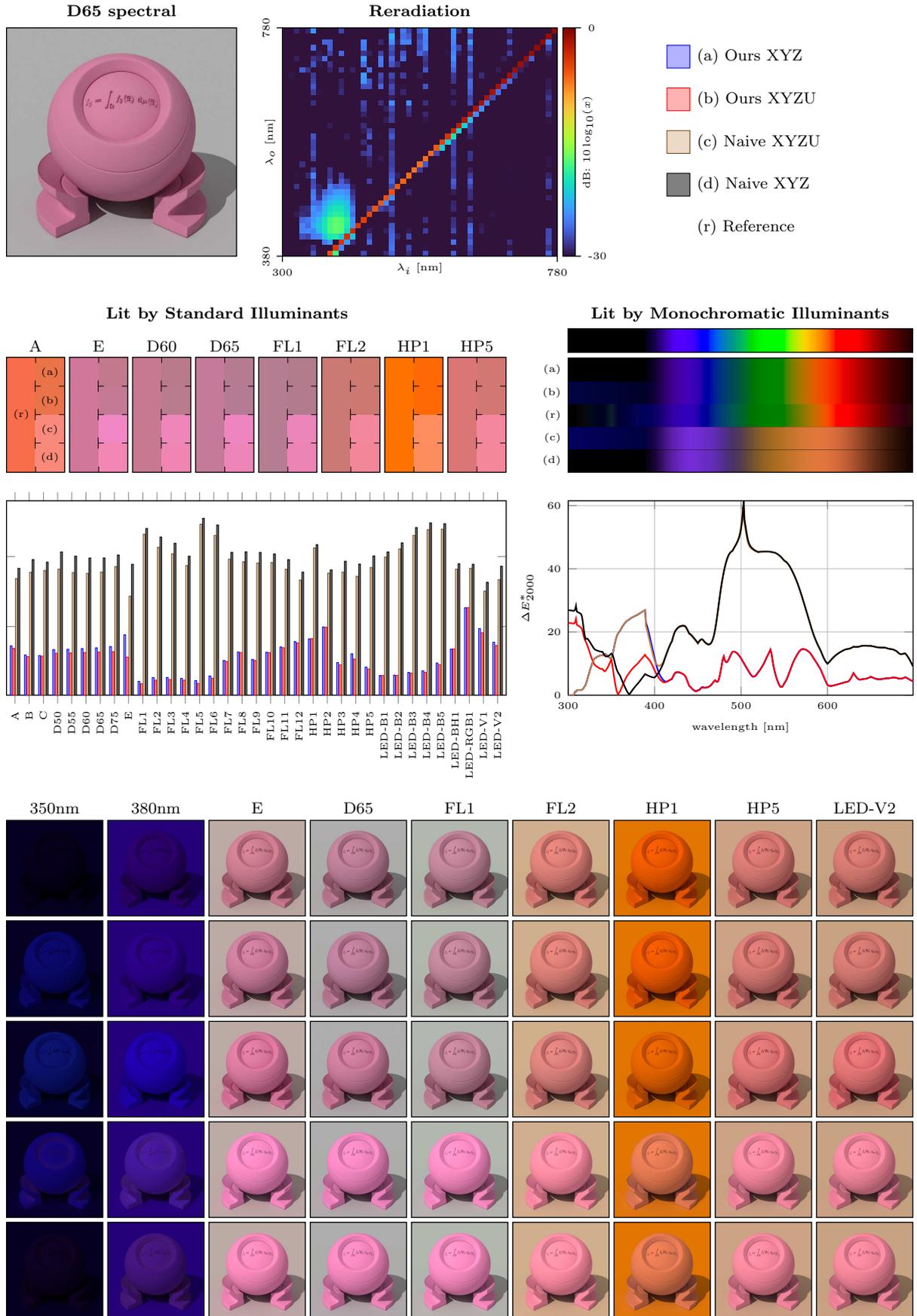
PLIWF4M



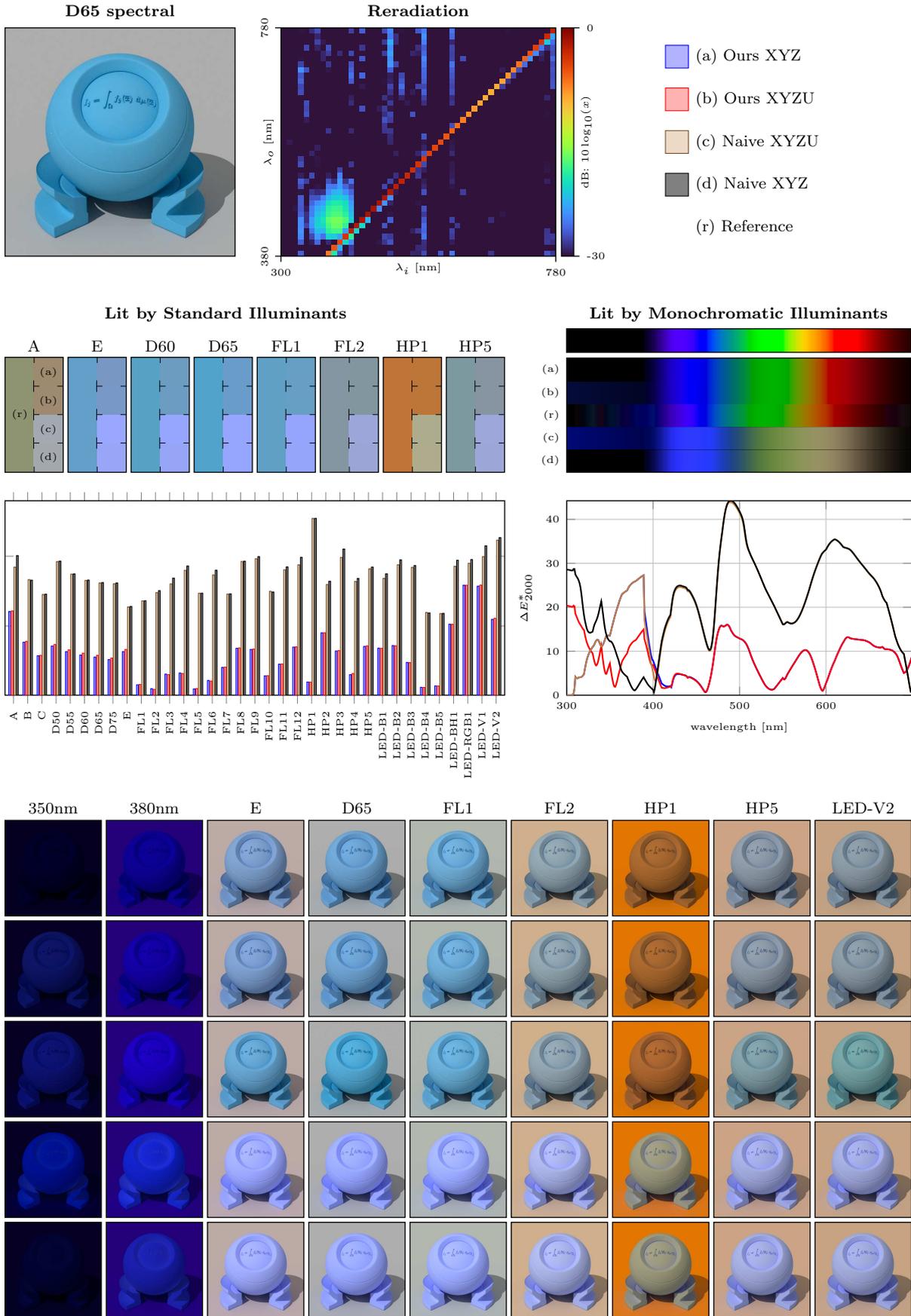
IXCRINFR



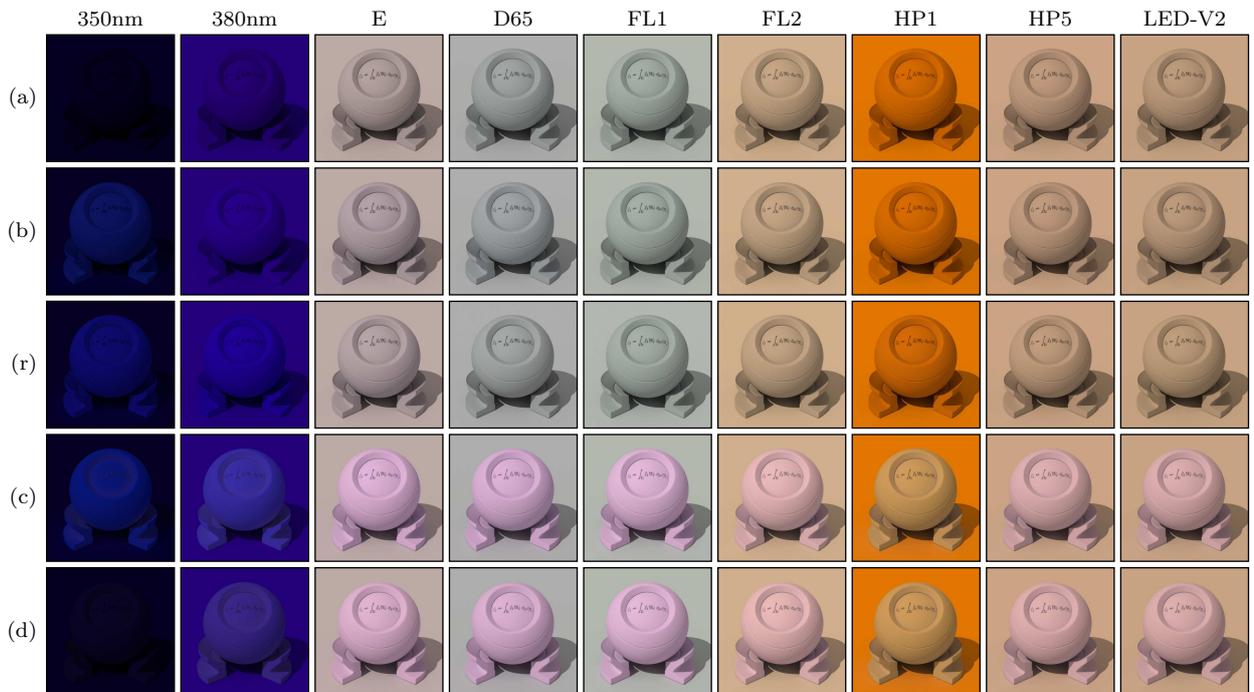
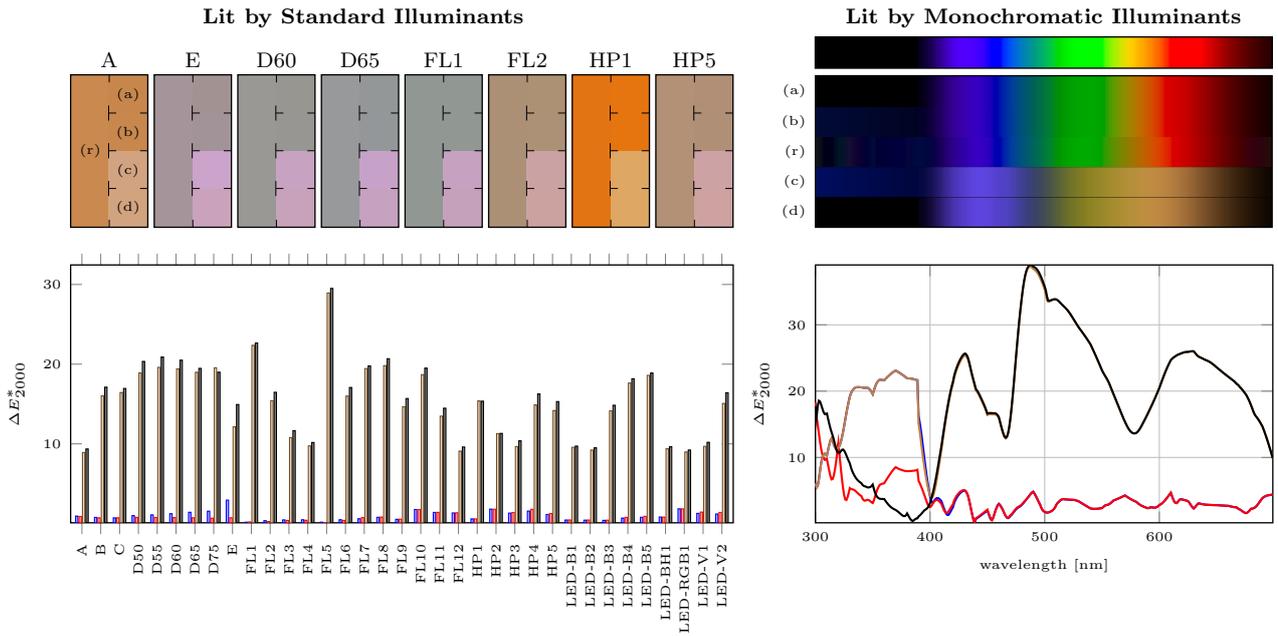
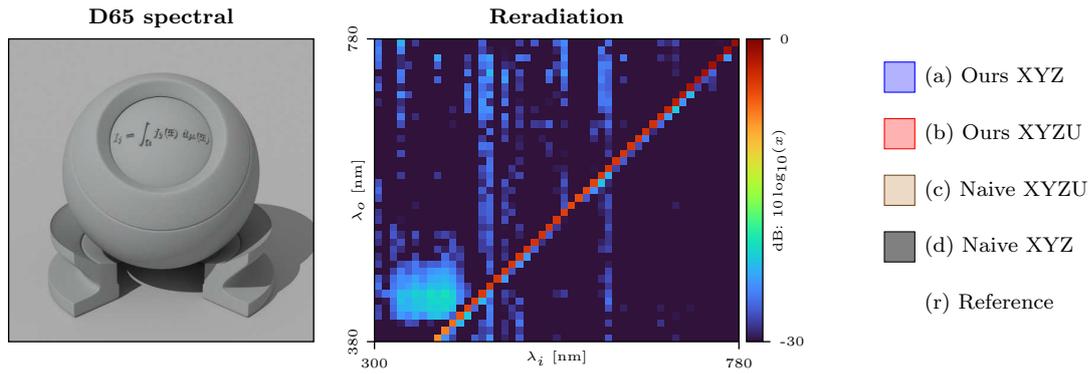
PKODXL5M



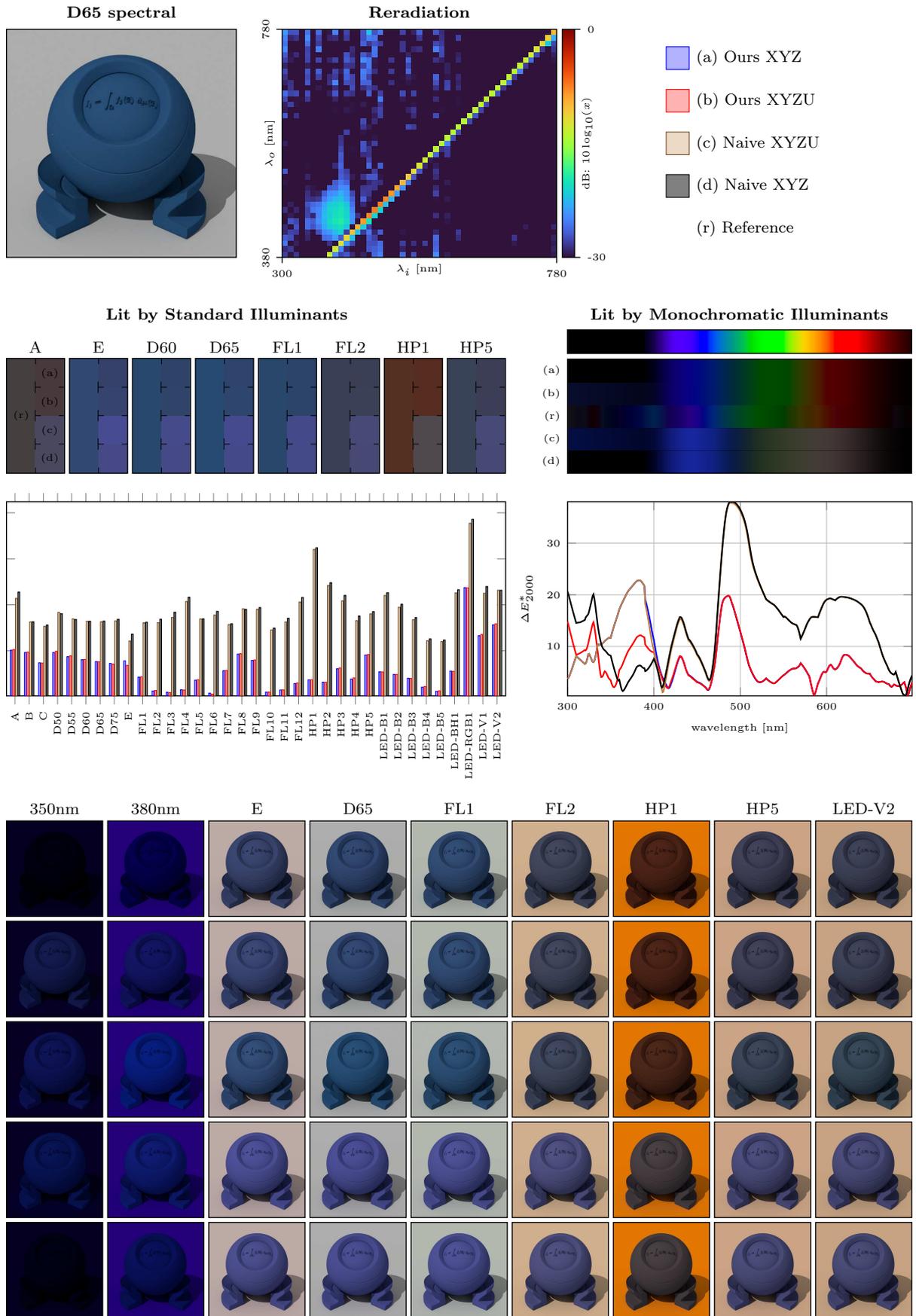
PKODXL5C



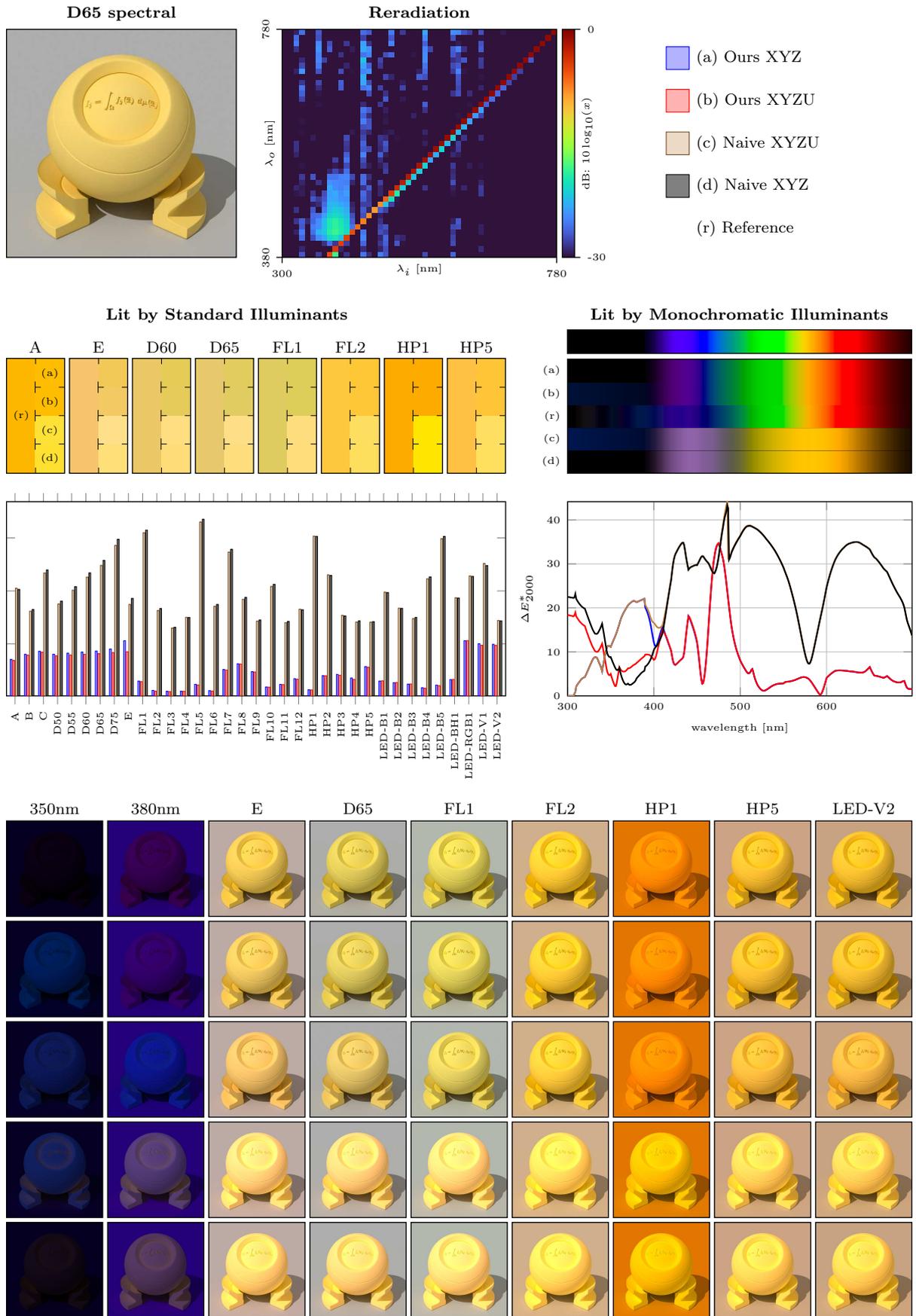
PHP8RV5K



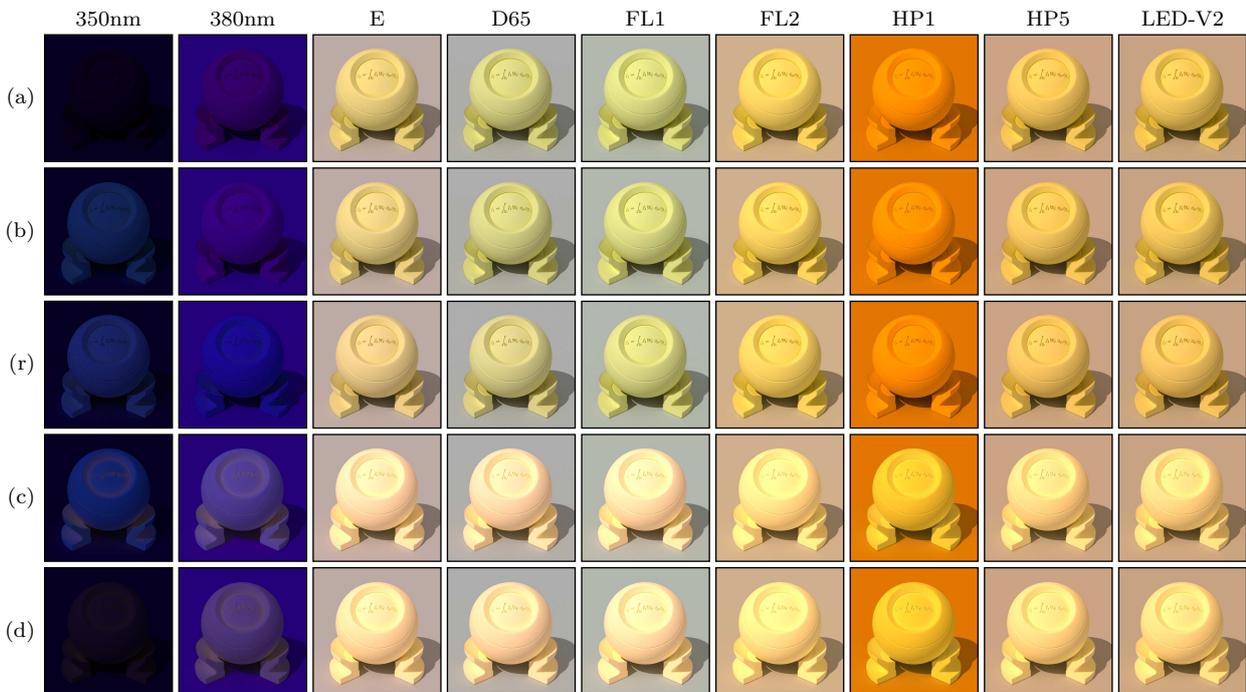
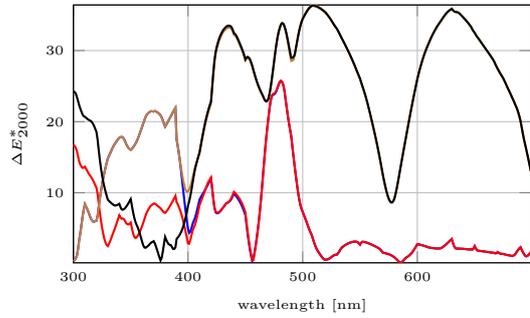
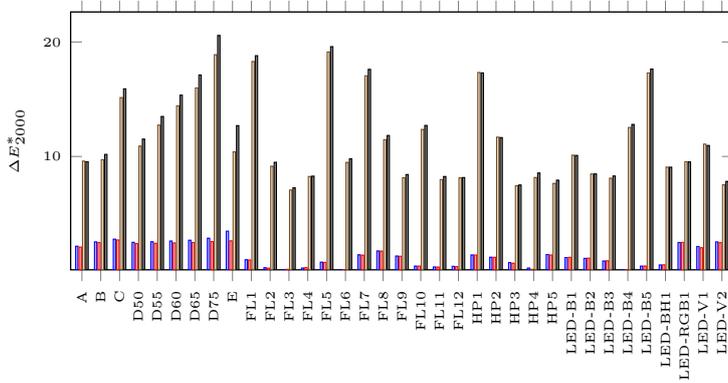
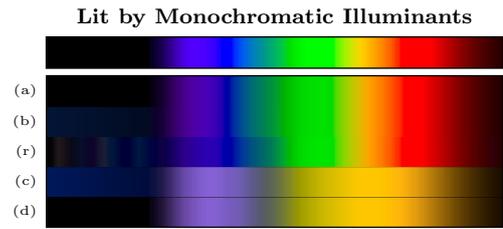
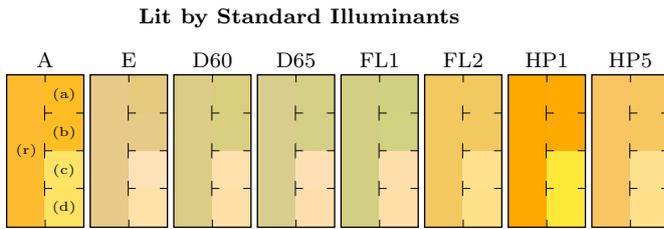
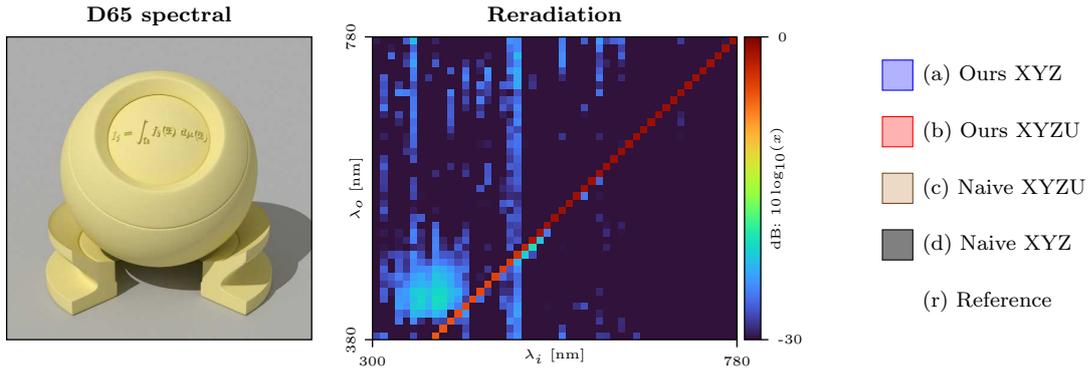
POLYBLUE



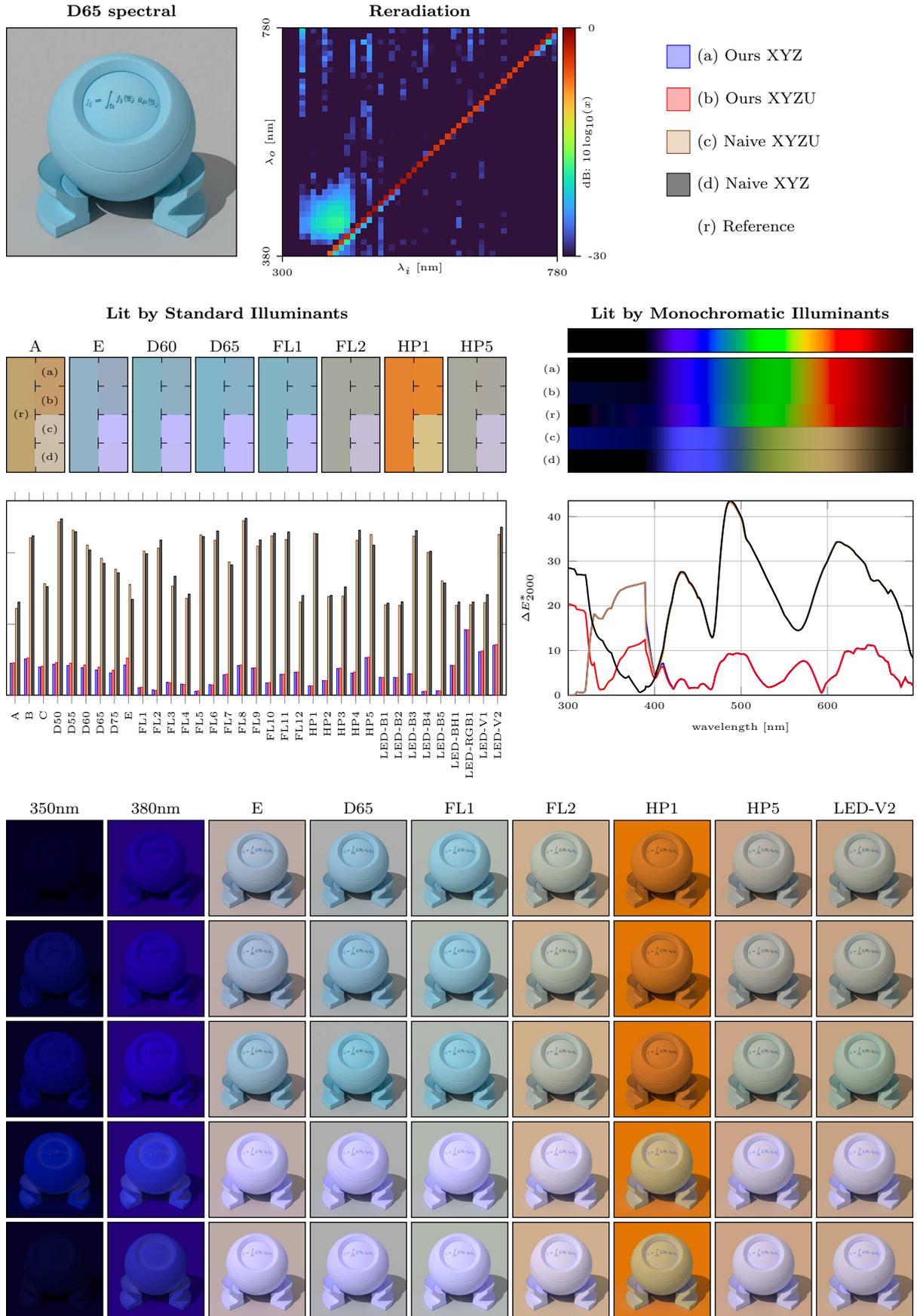
PKODXL5Y



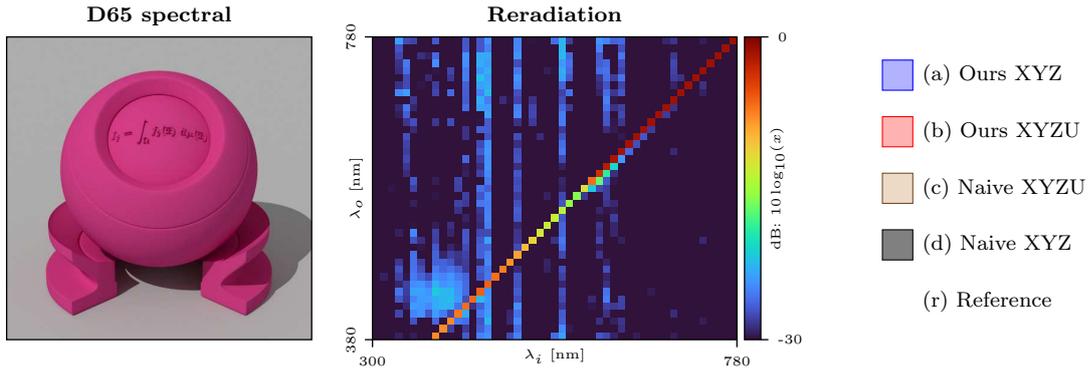
PLIWF4Y



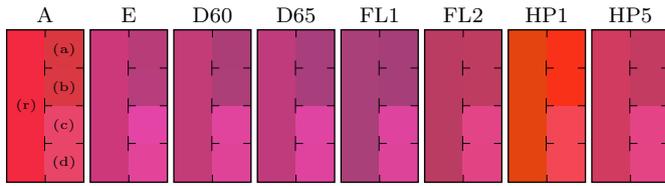
PLIWF4C



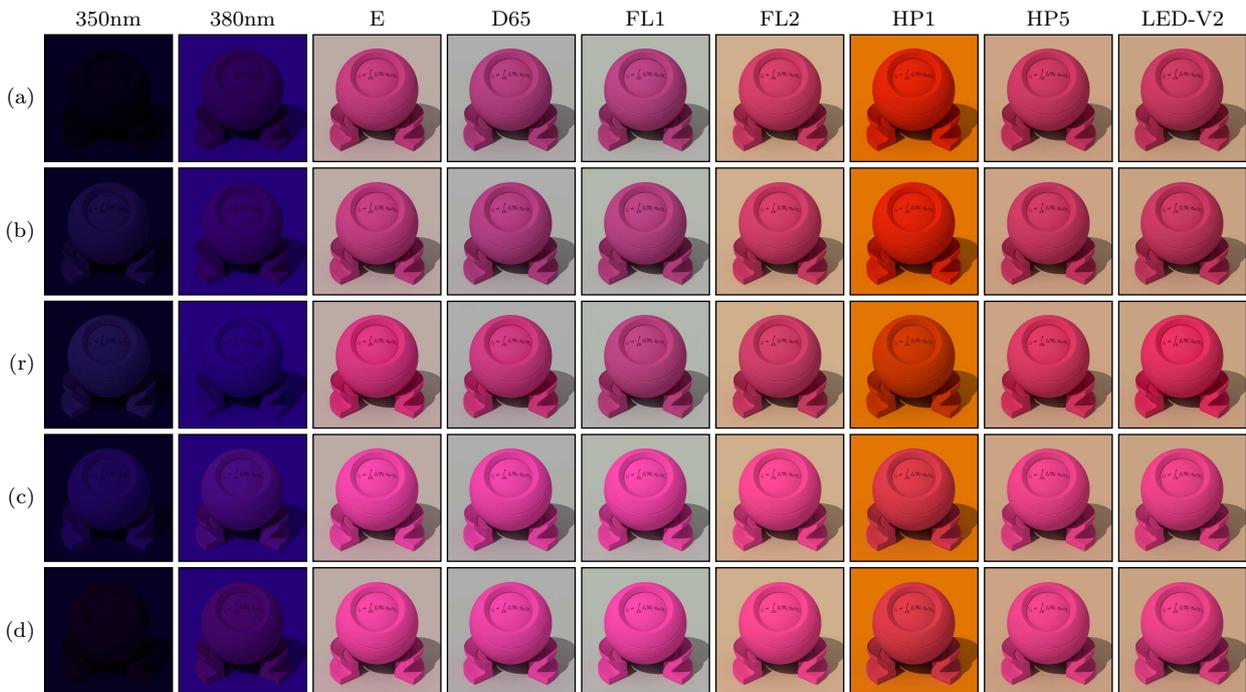
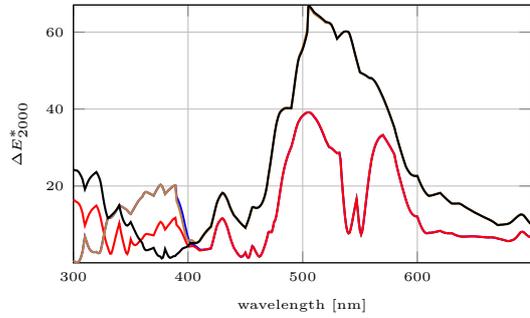
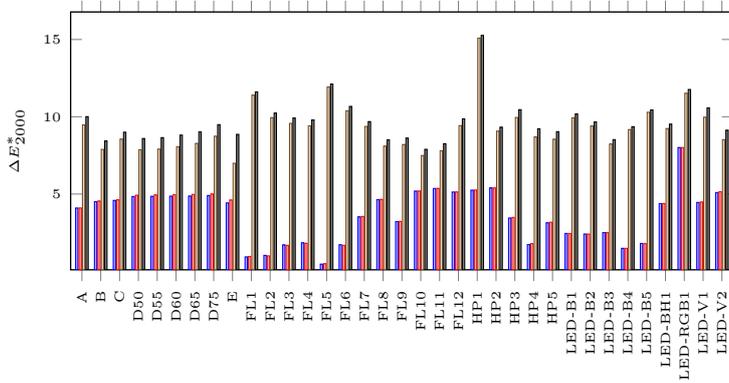
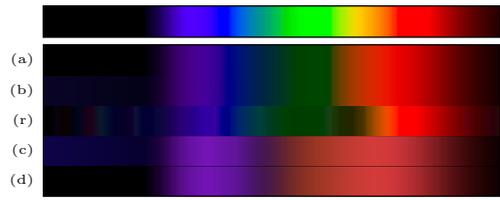
PLIWF1M



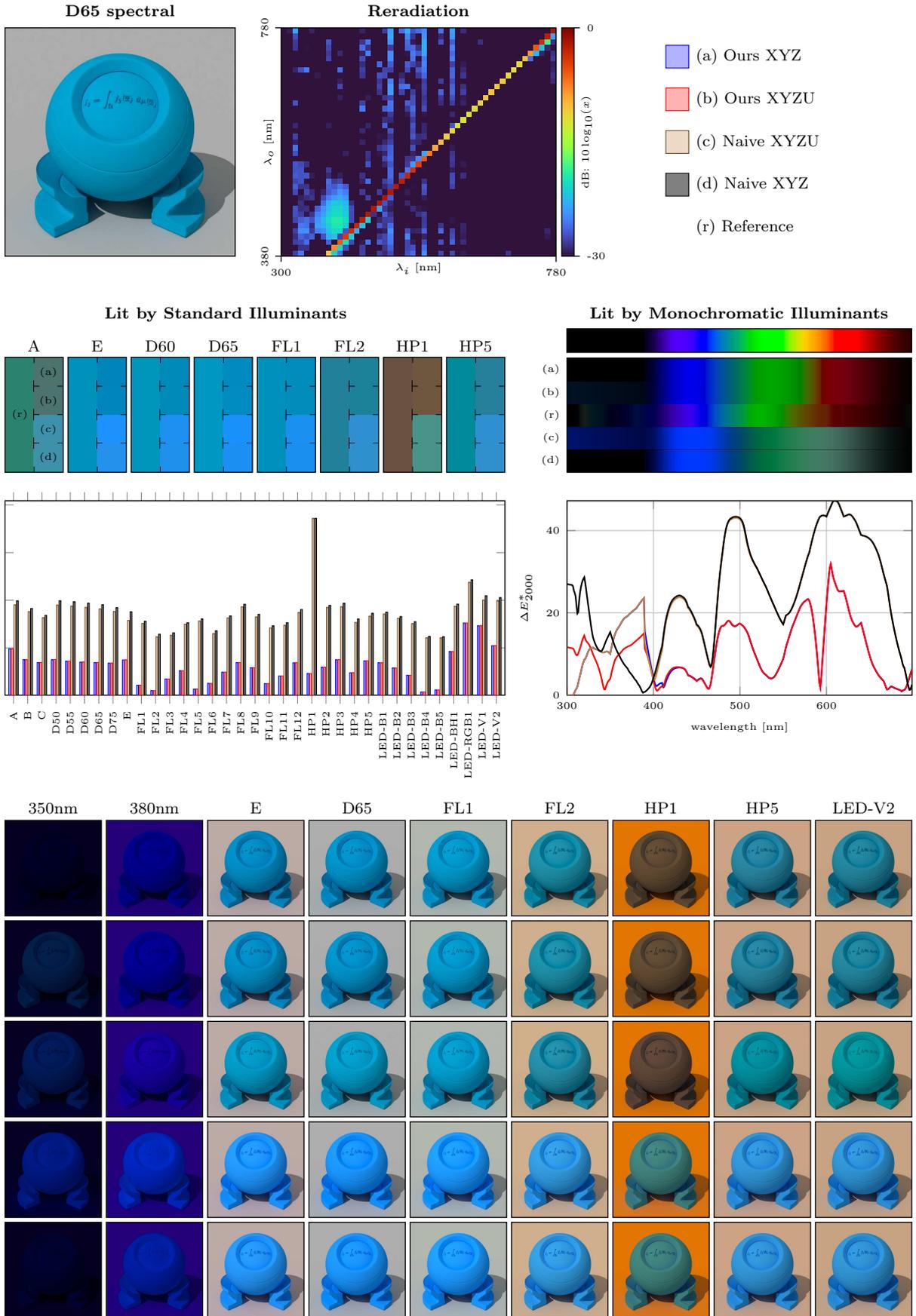
Lit by Standard Illuminants



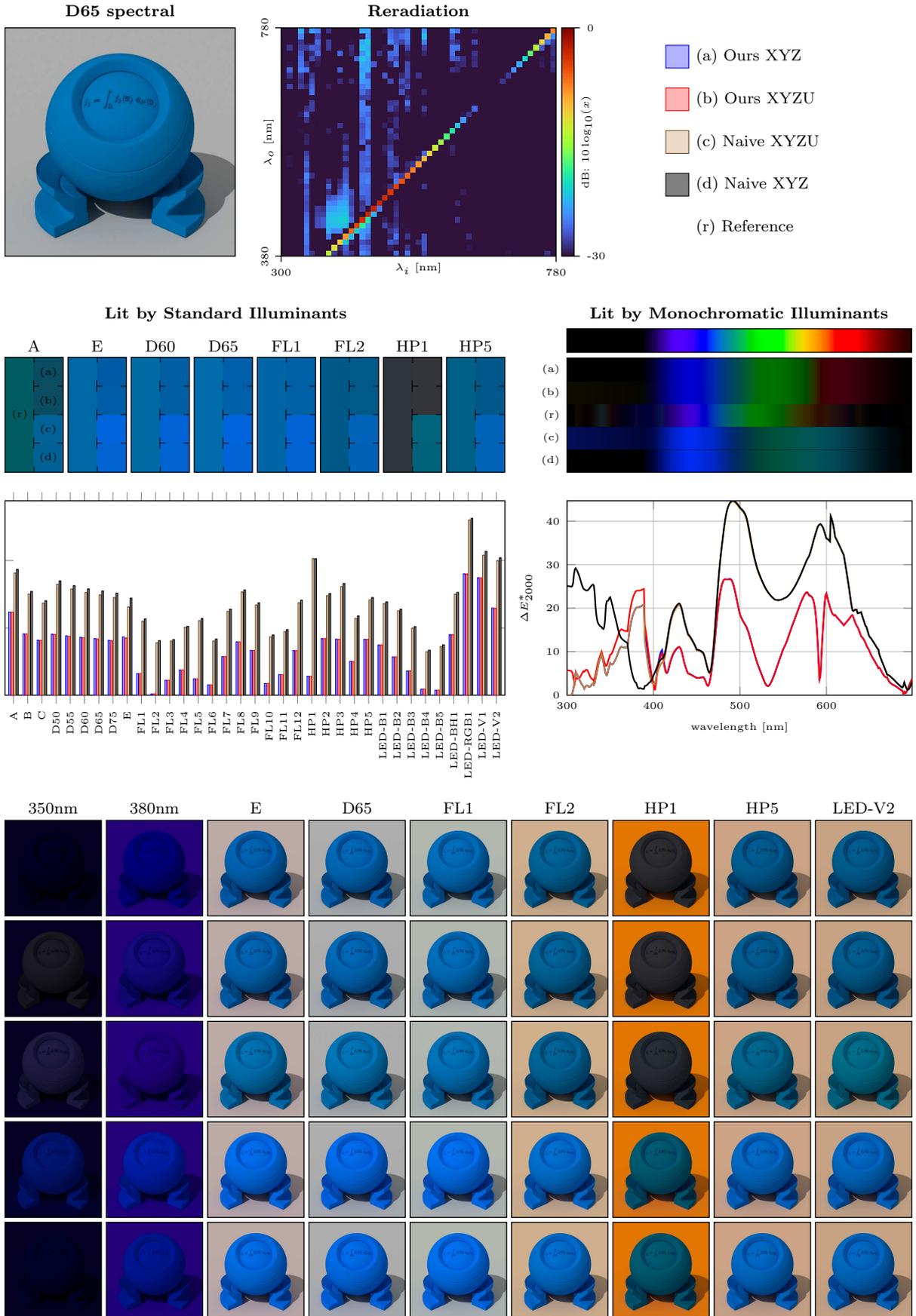
Lit by Monochromatic Illuminants



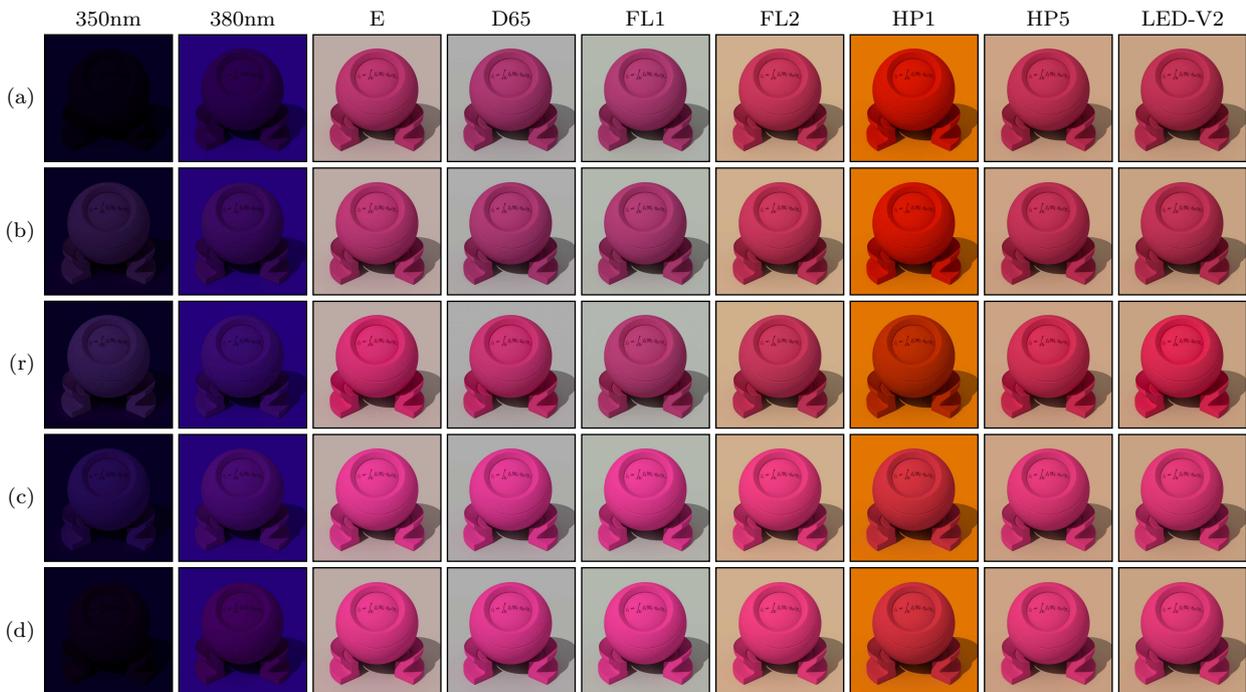
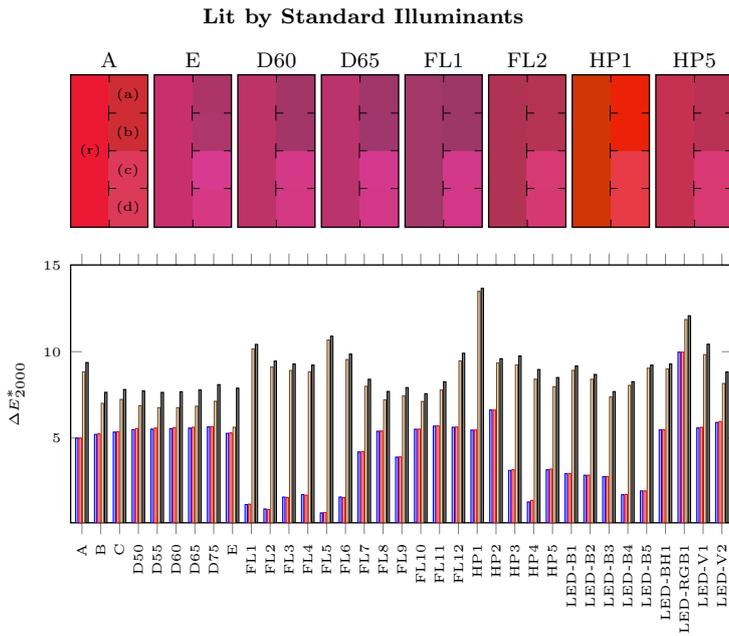
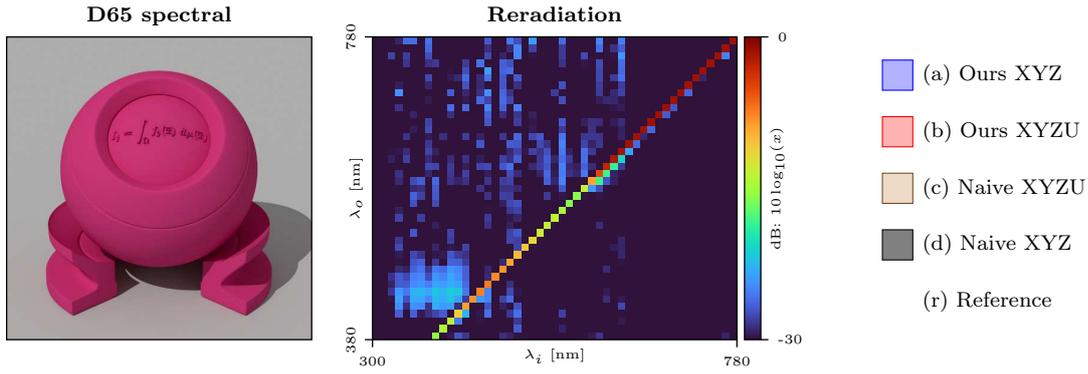
PLIWF1C



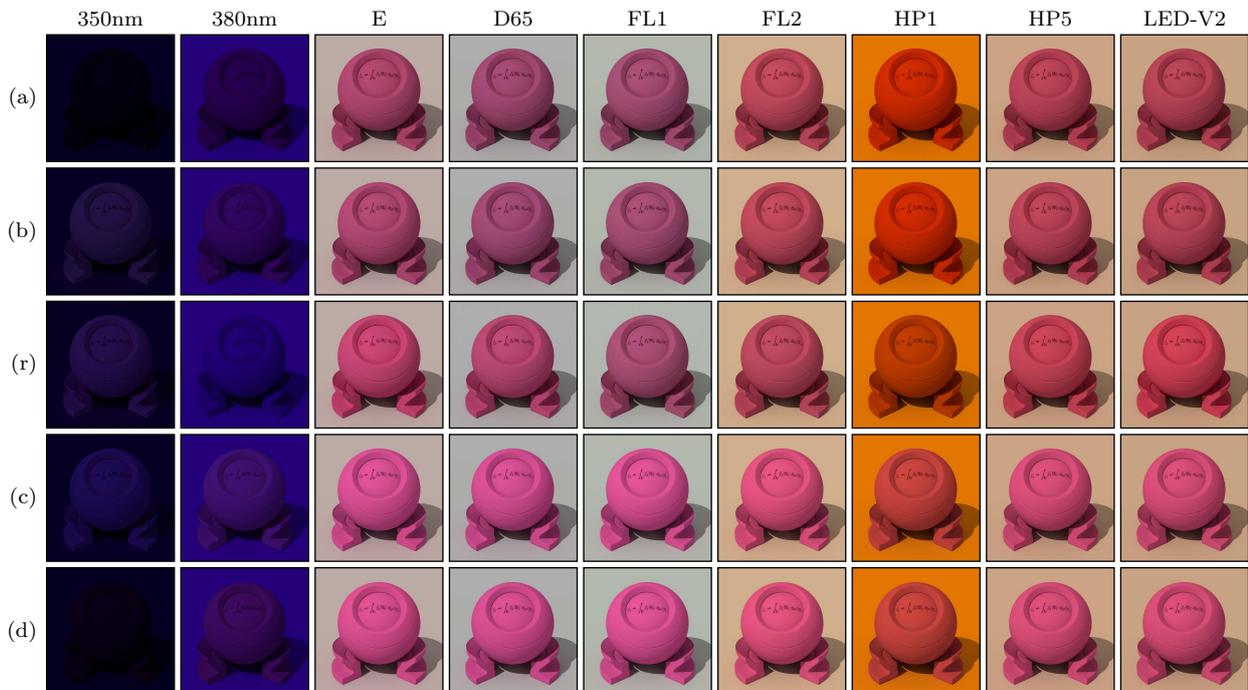
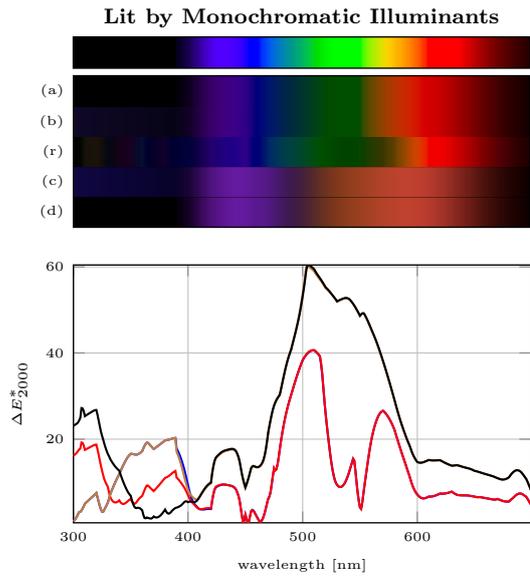
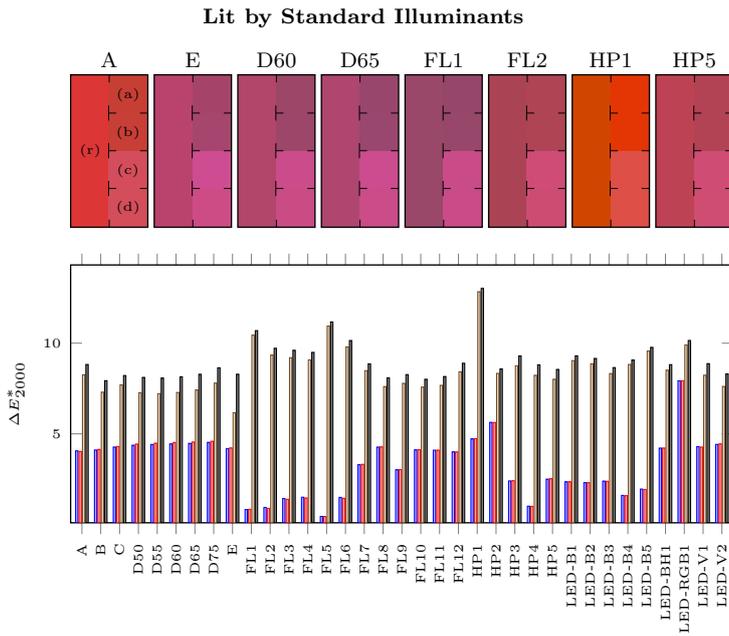
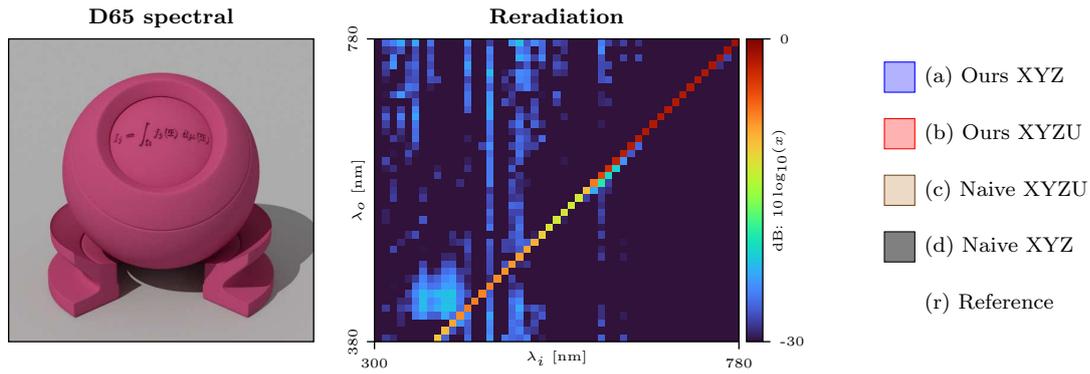
PKODXL1C



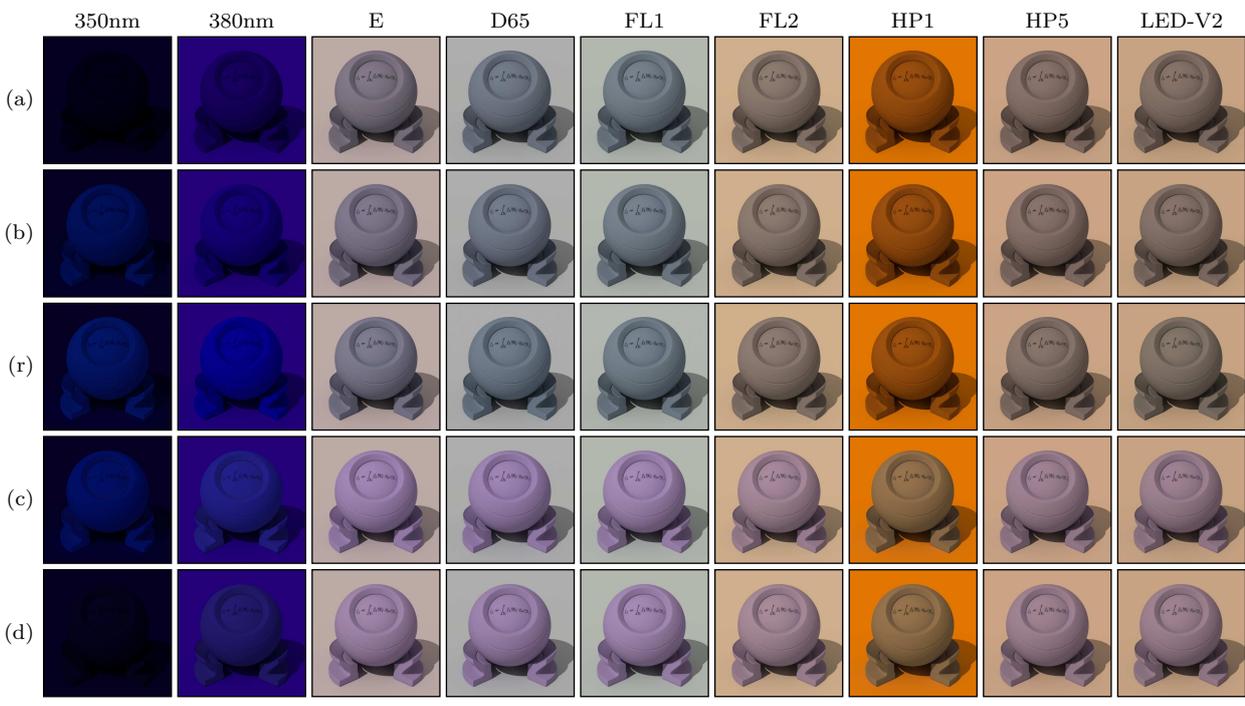
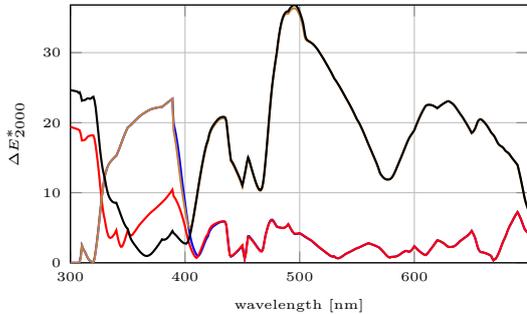
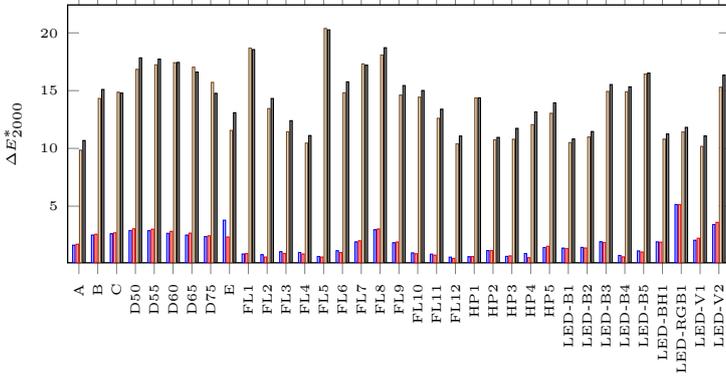
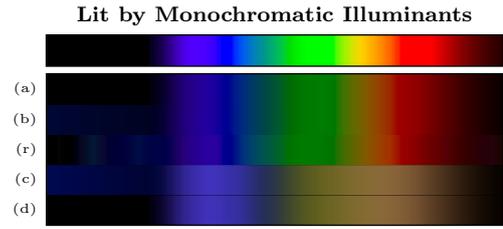
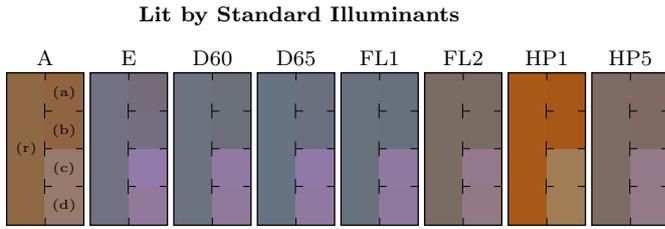
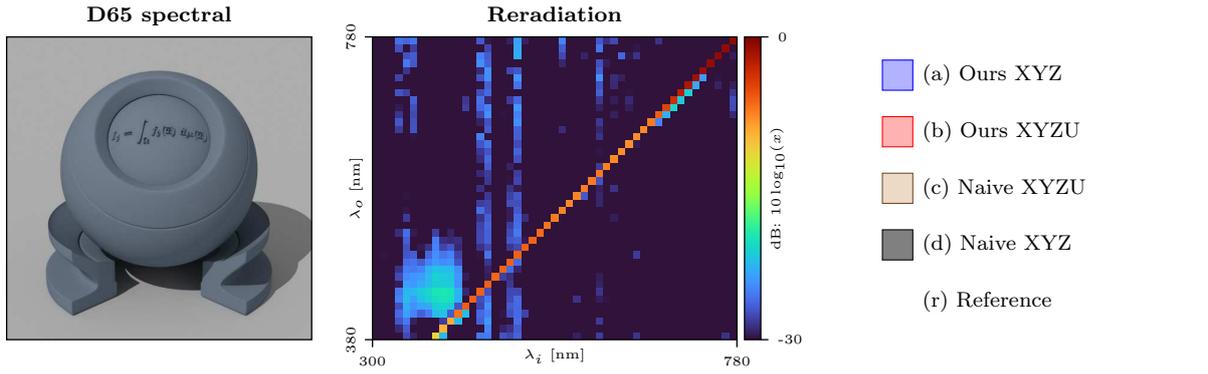
PHP8HP1M



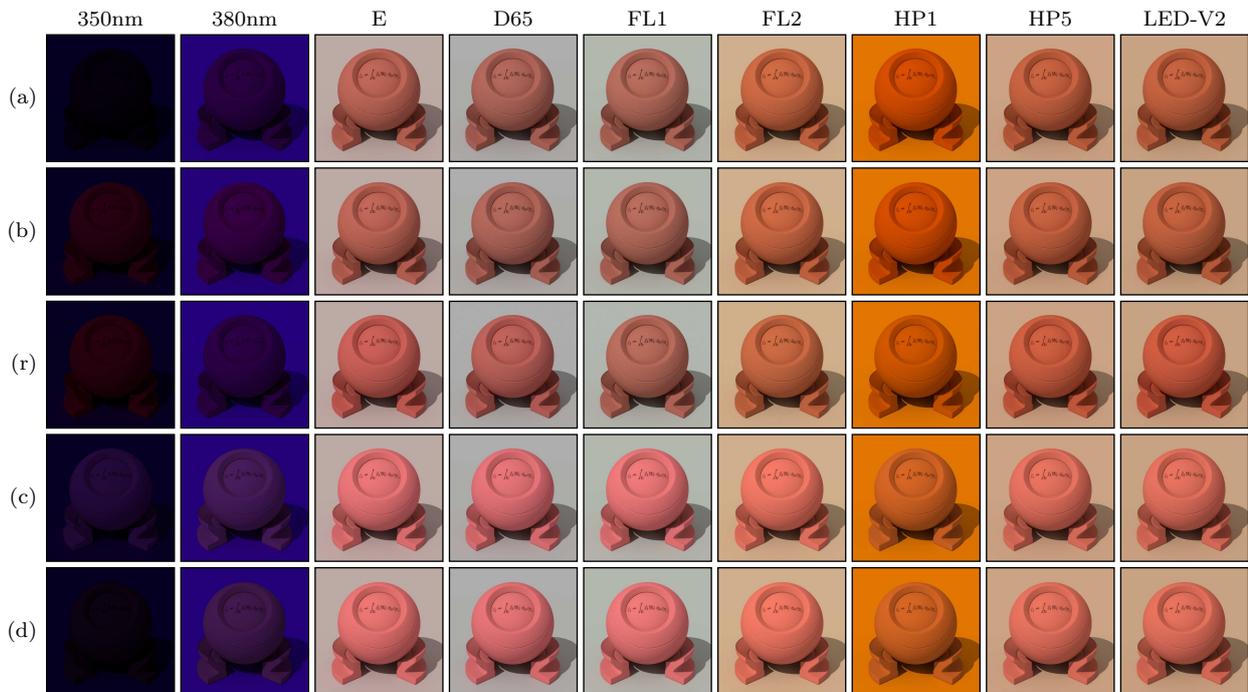
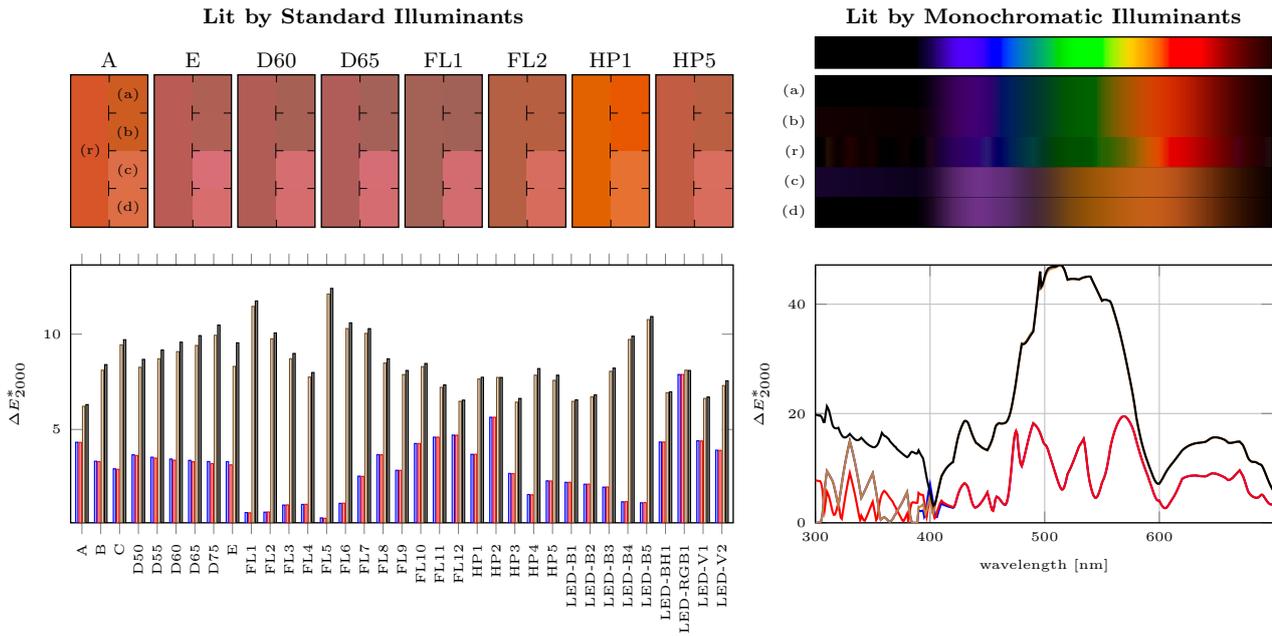
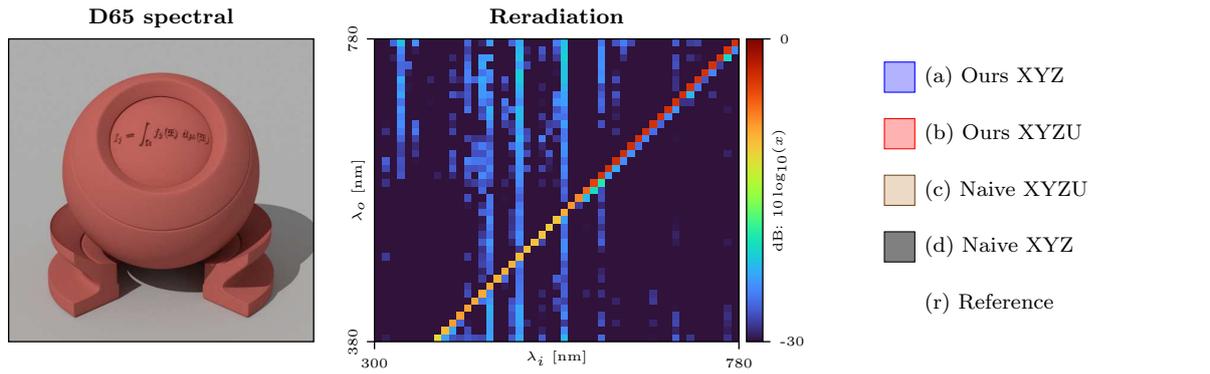
PXEROM1R



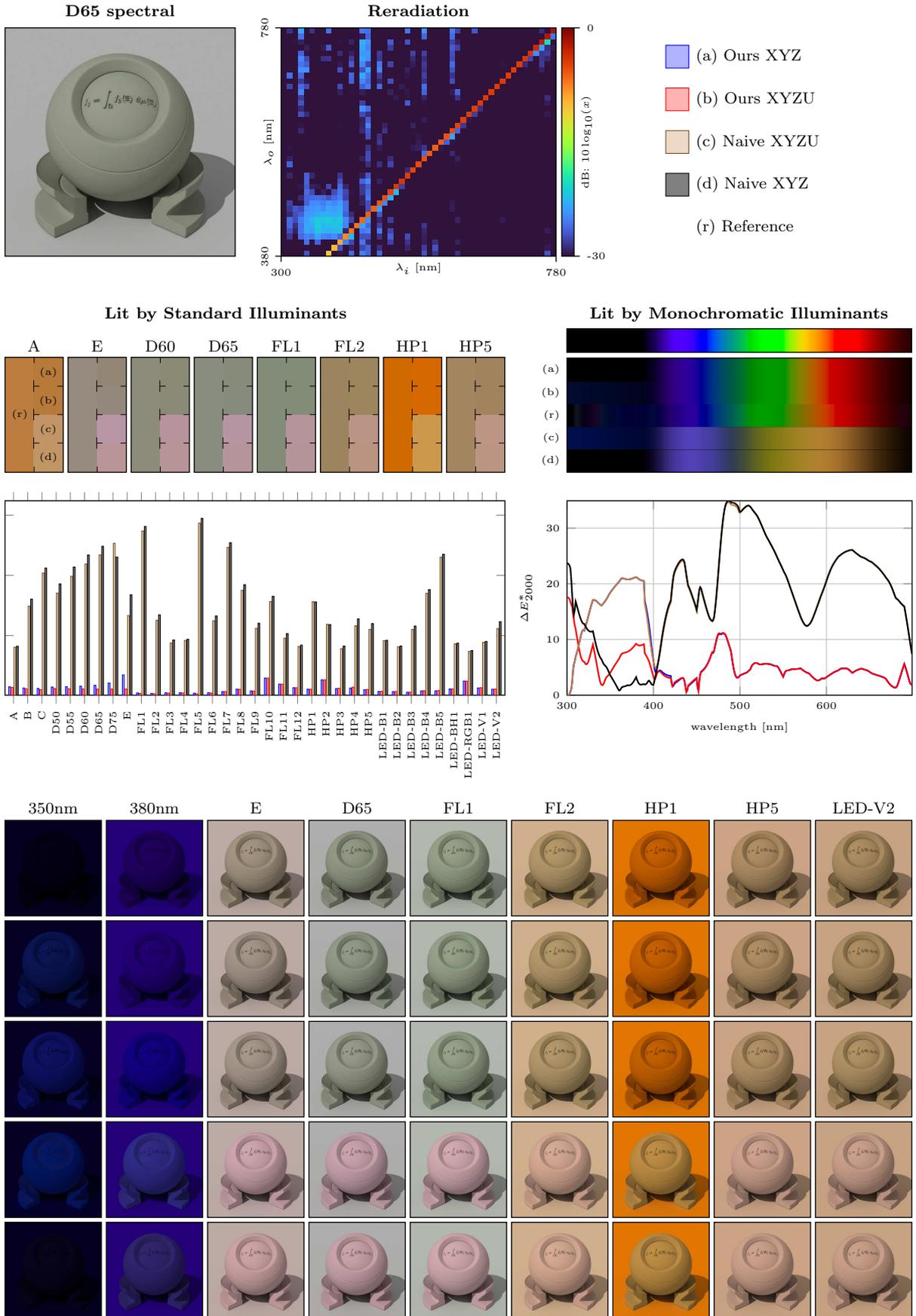
PFUJI5K



MSCHIP1

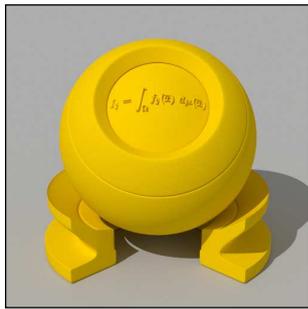


PXEROK5R

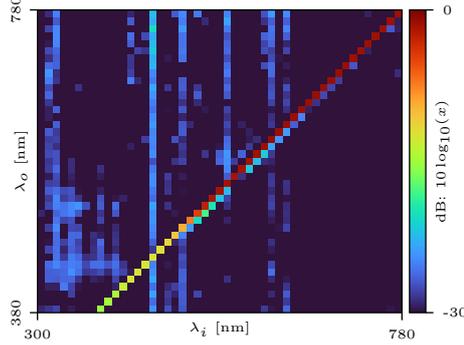


PHP8HP1Y

D65 spectral

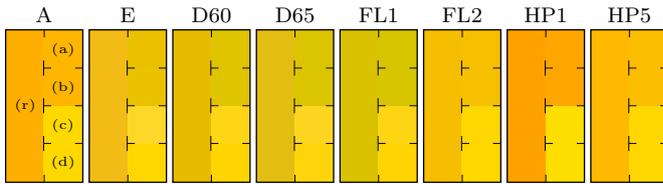


Reradiation

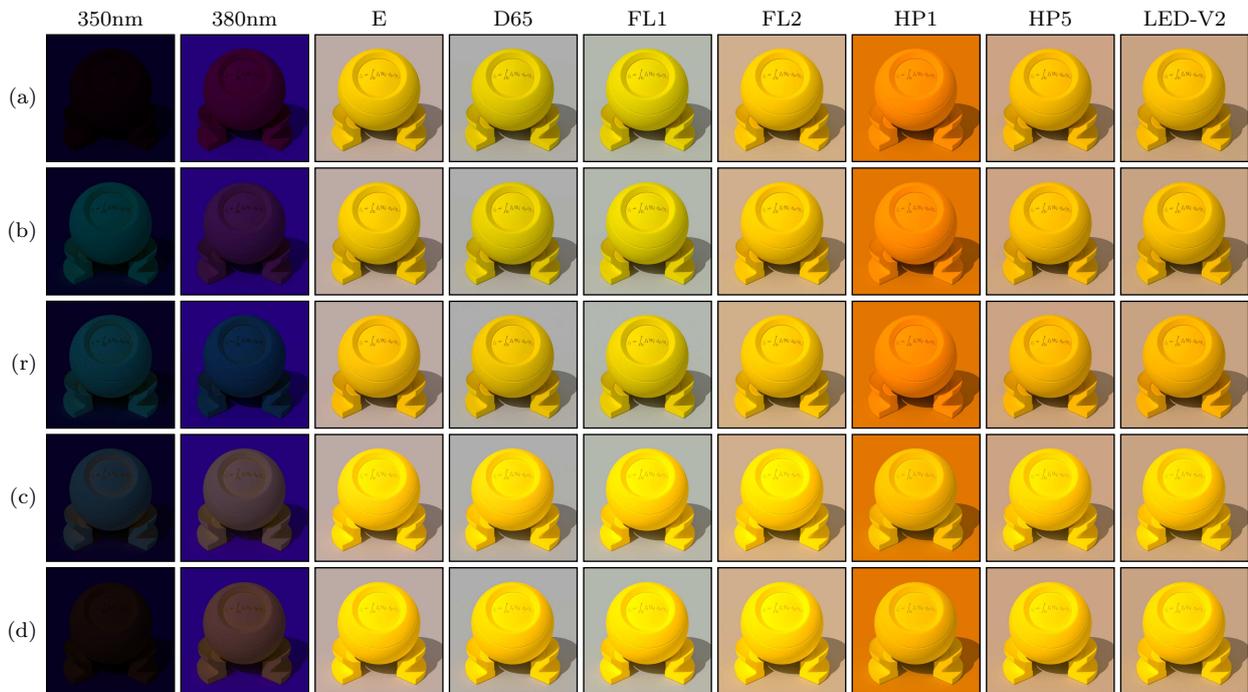
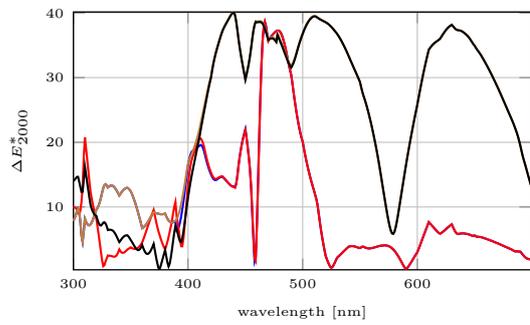
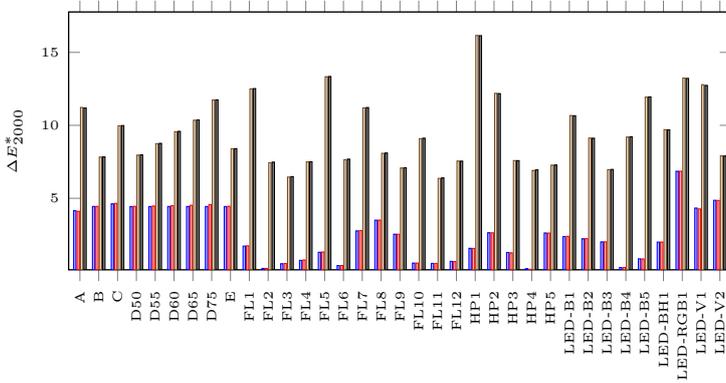
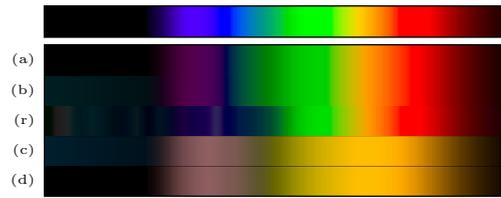


- (a) Ours XYZ
- (b) Ours XYZU
- (c) Naive XYZU
- (d) Naive XYZ
- (r) Reference

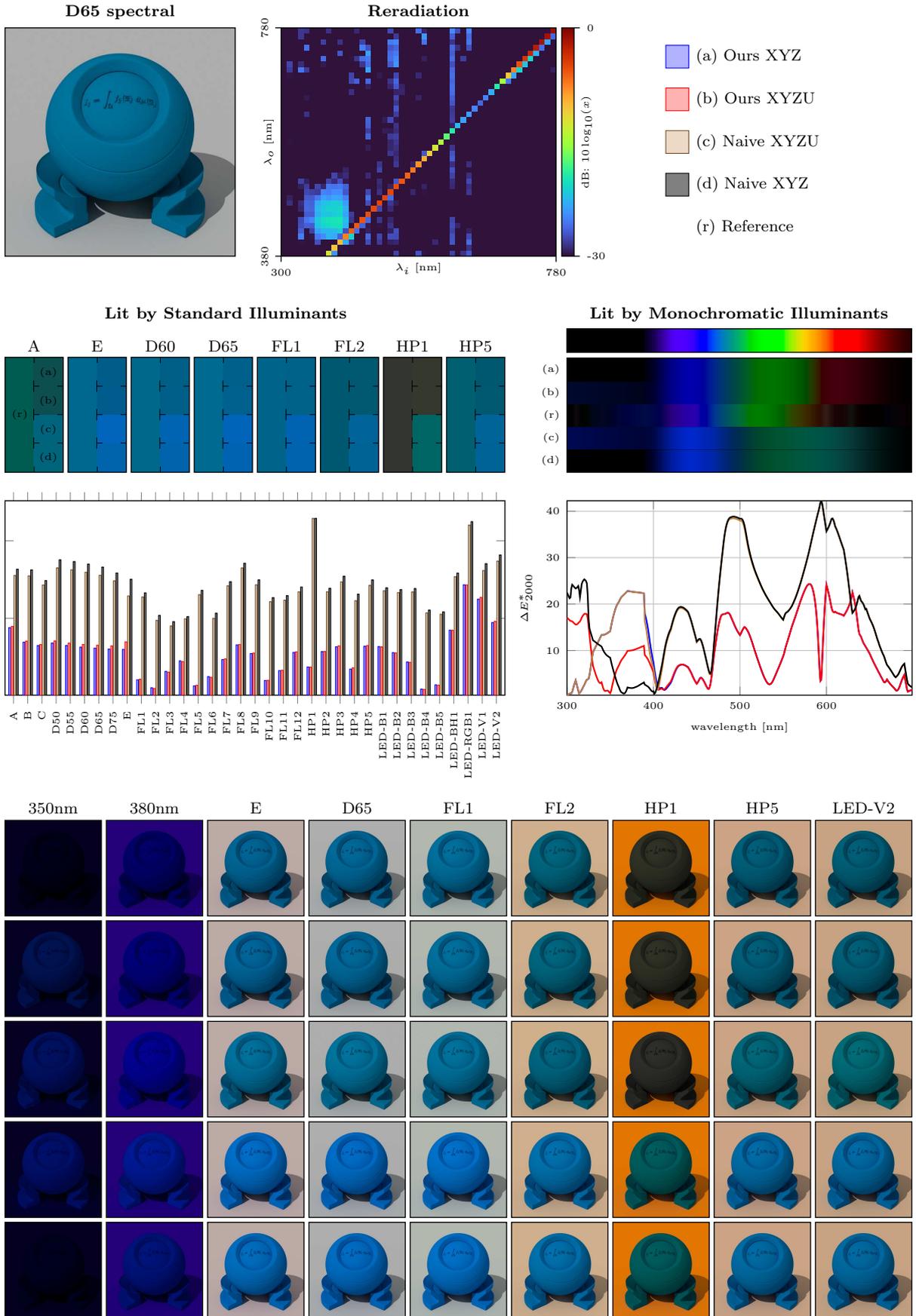
Lit by Standard Illuminants



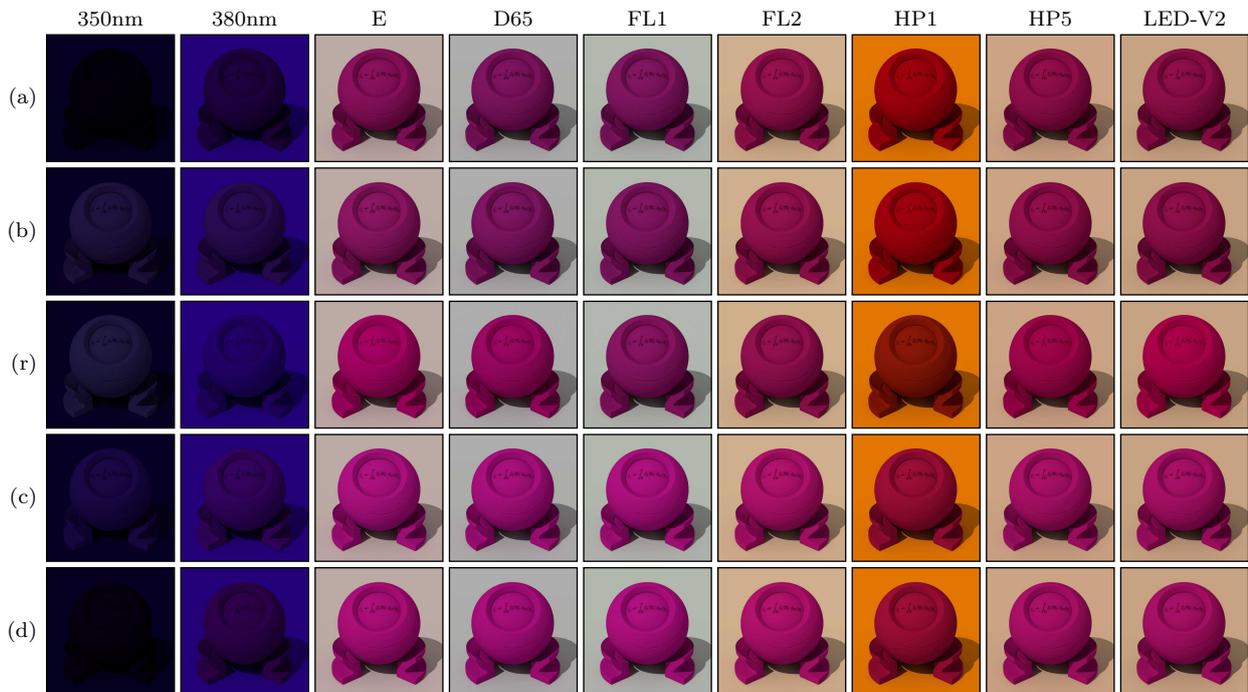
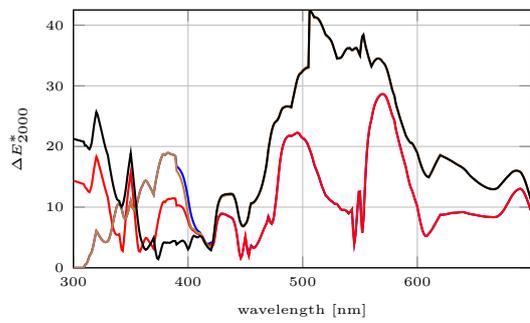
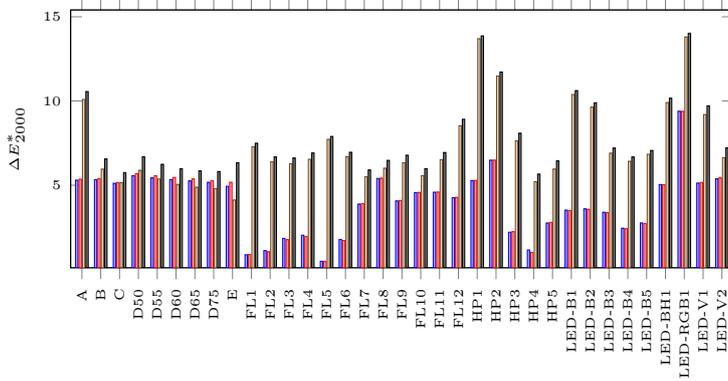
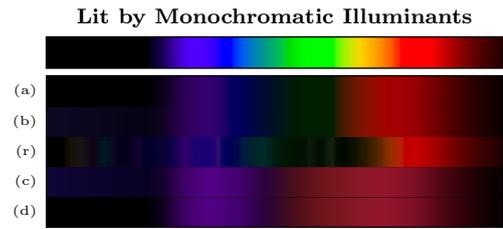
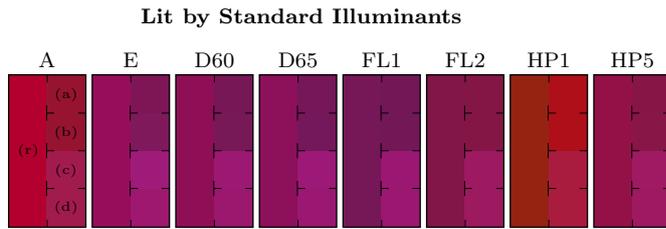
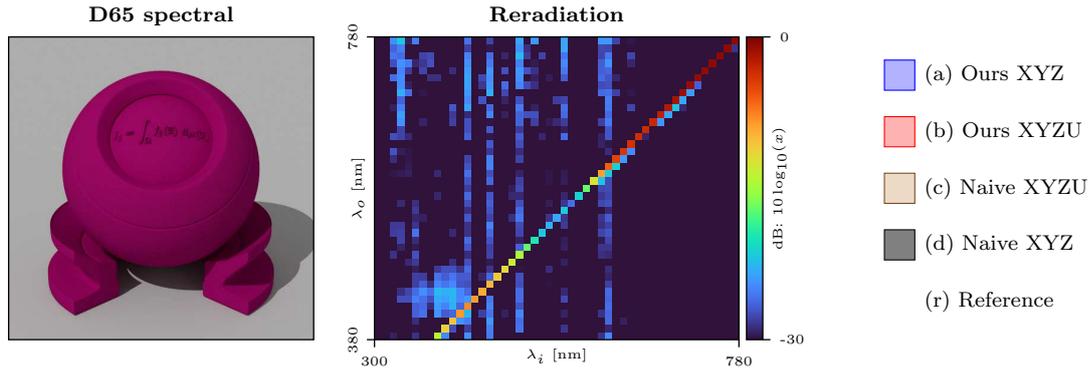
Lit by Monochromatic Illuminants



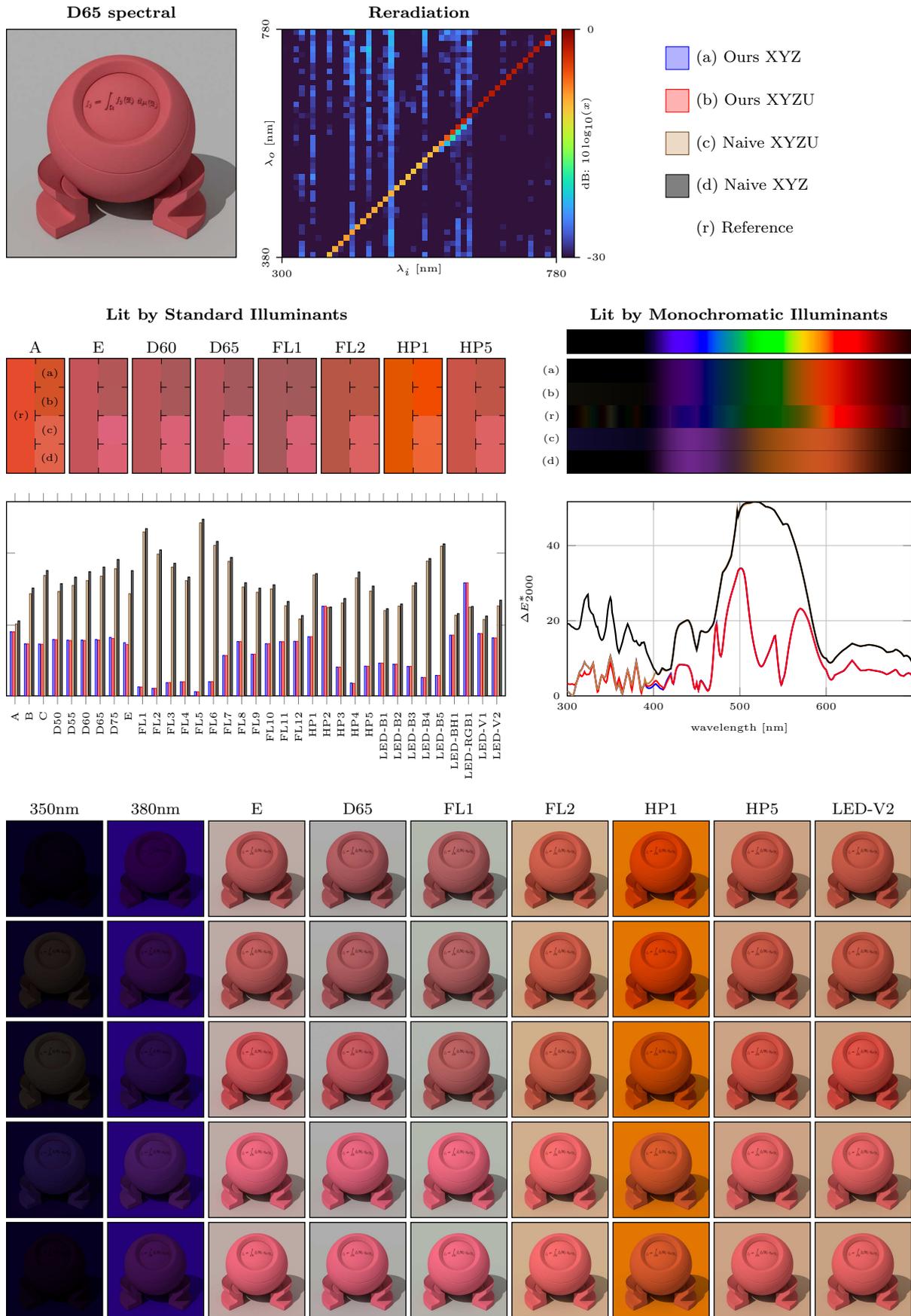
PFUJI1C



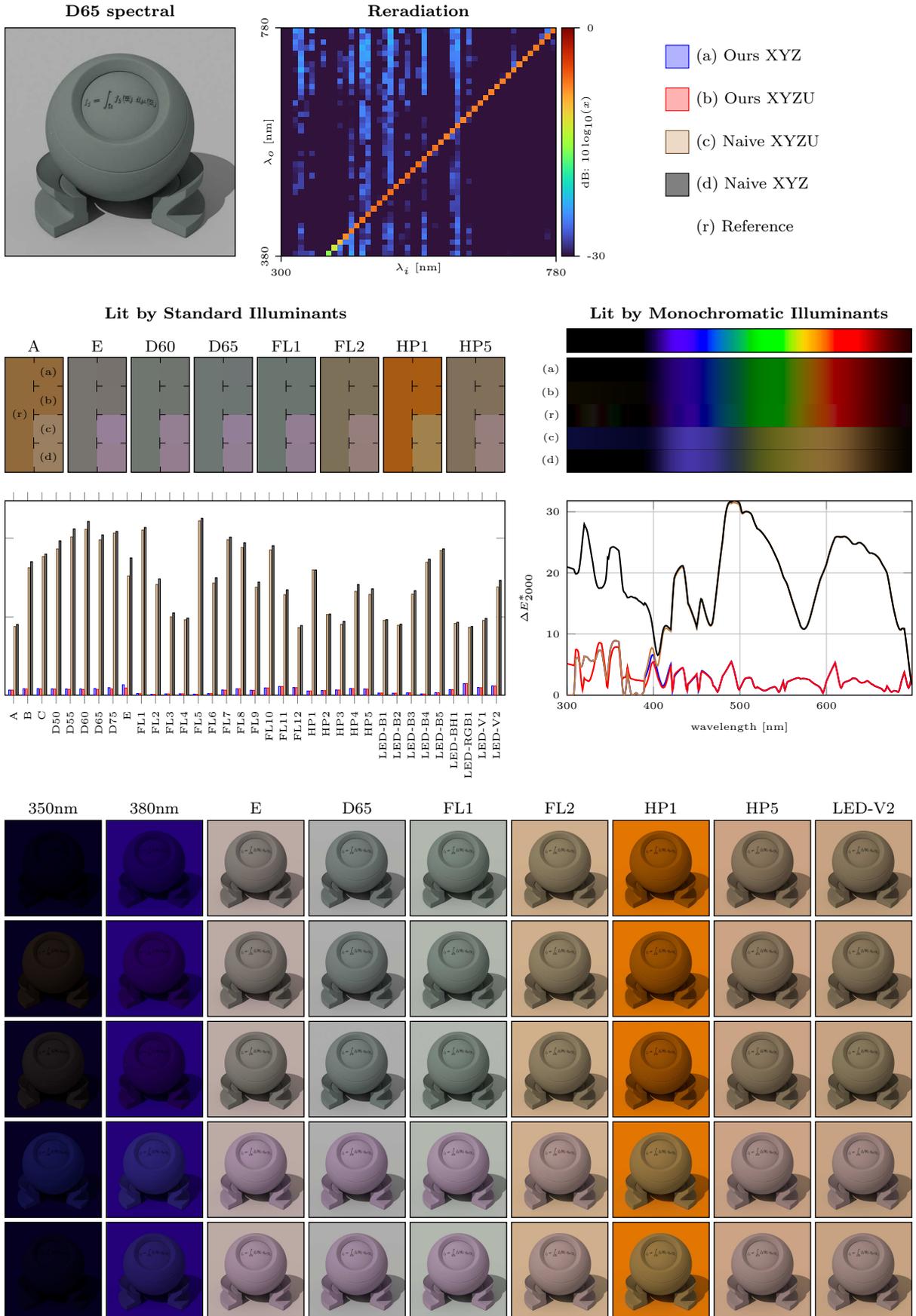
PFUJI1M



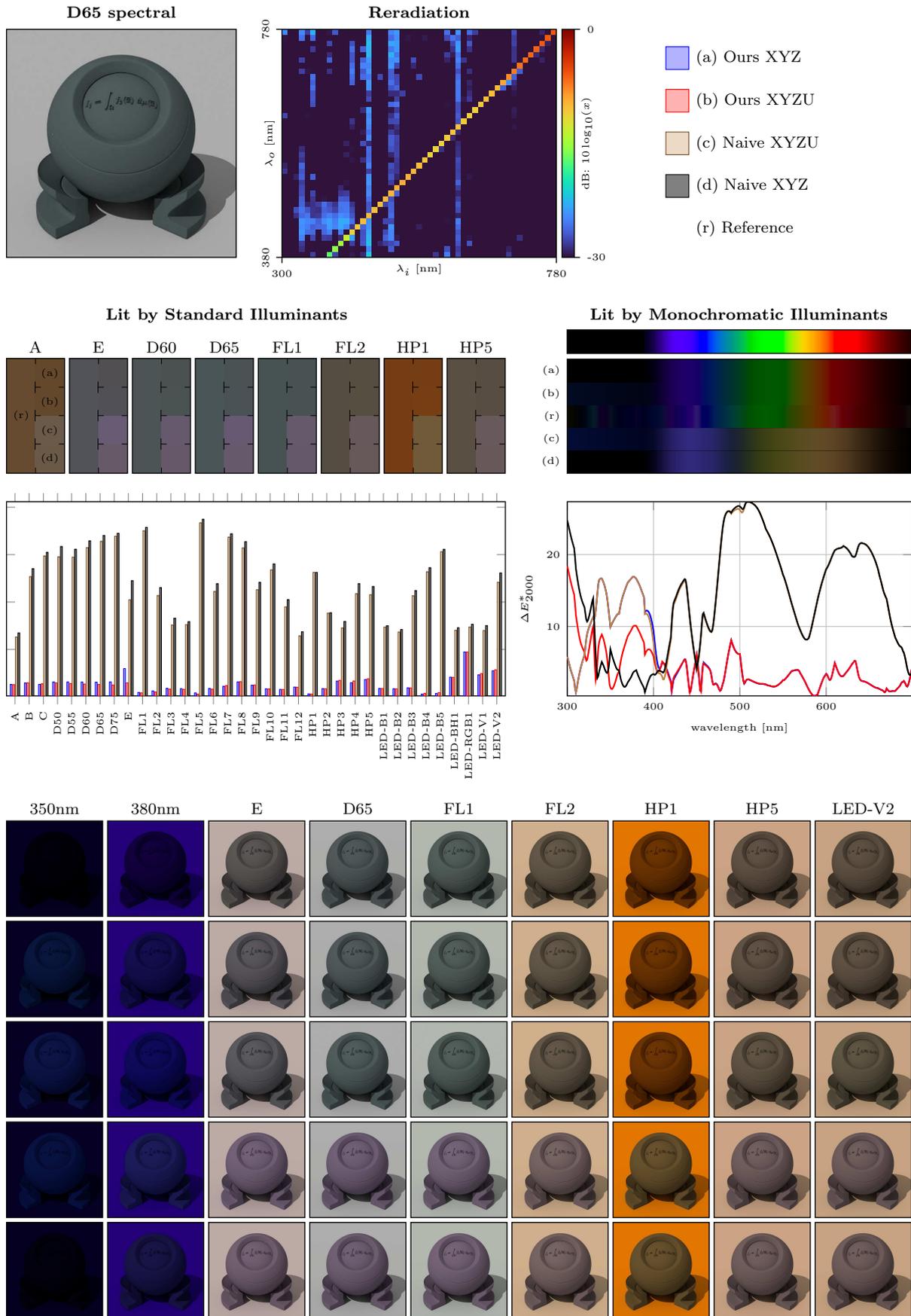
MCMODRED



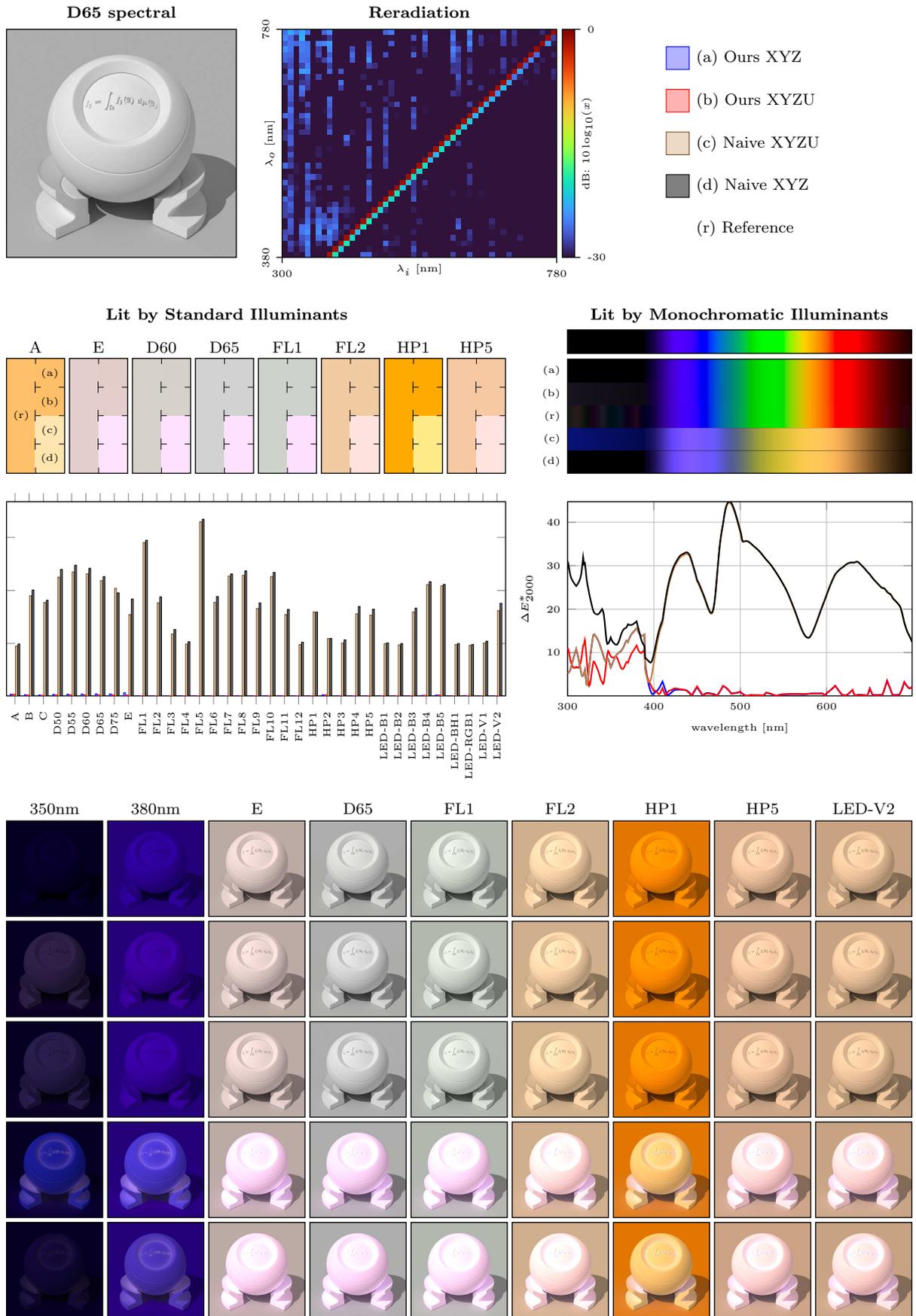
P3MP1K



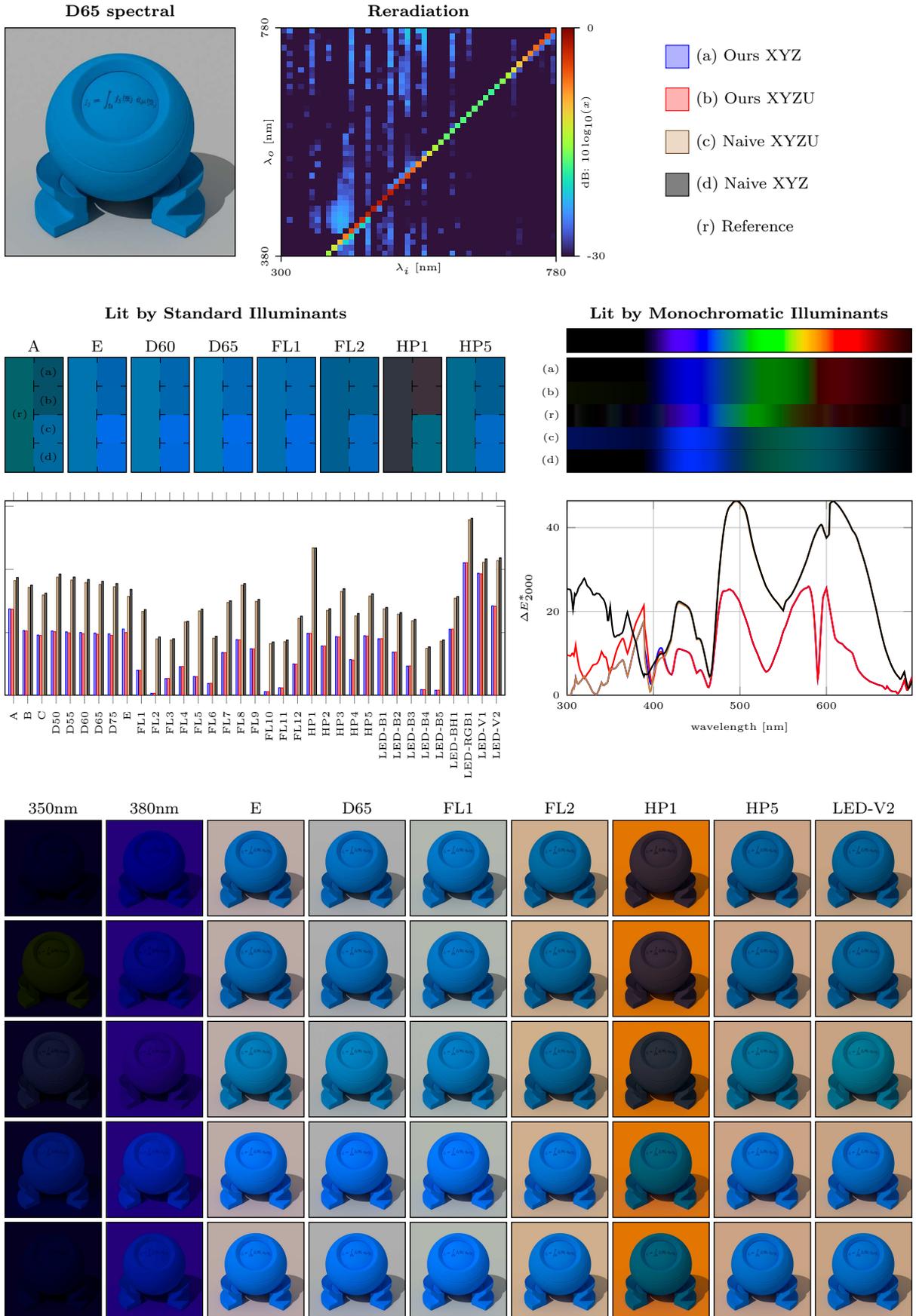
PHP8HP1K



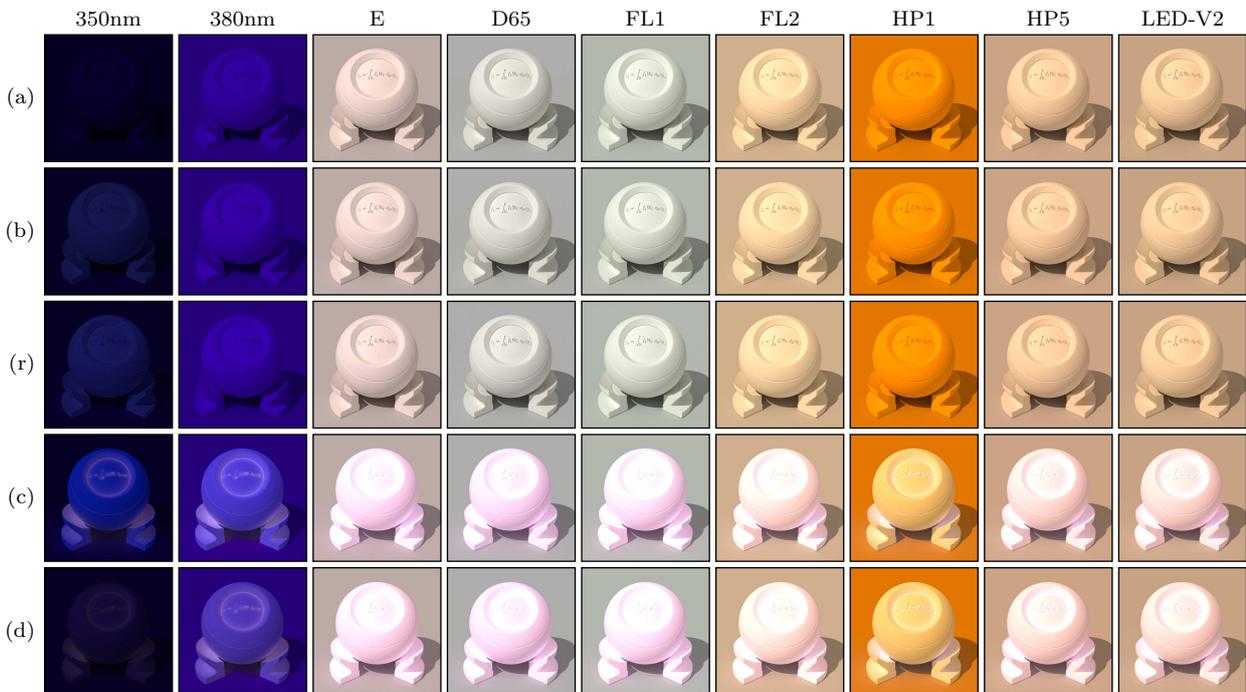
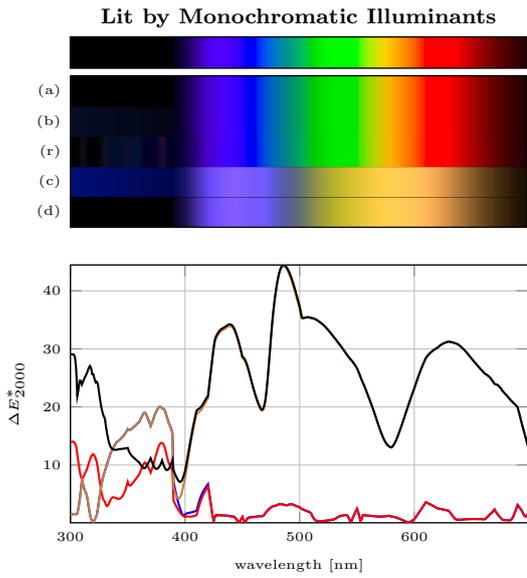
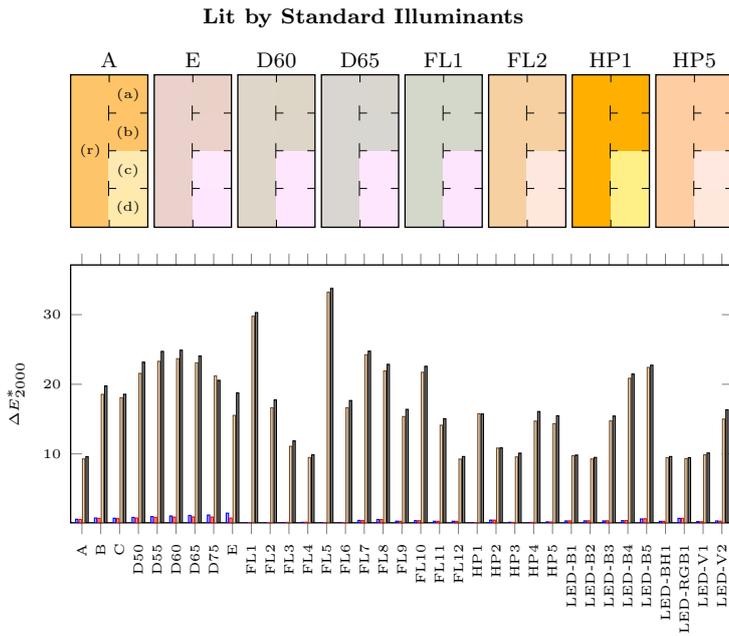
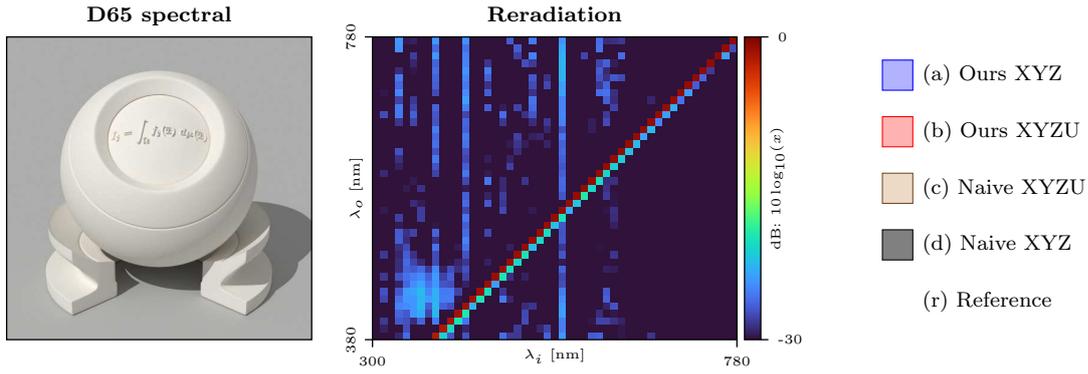
PLTOSFWH



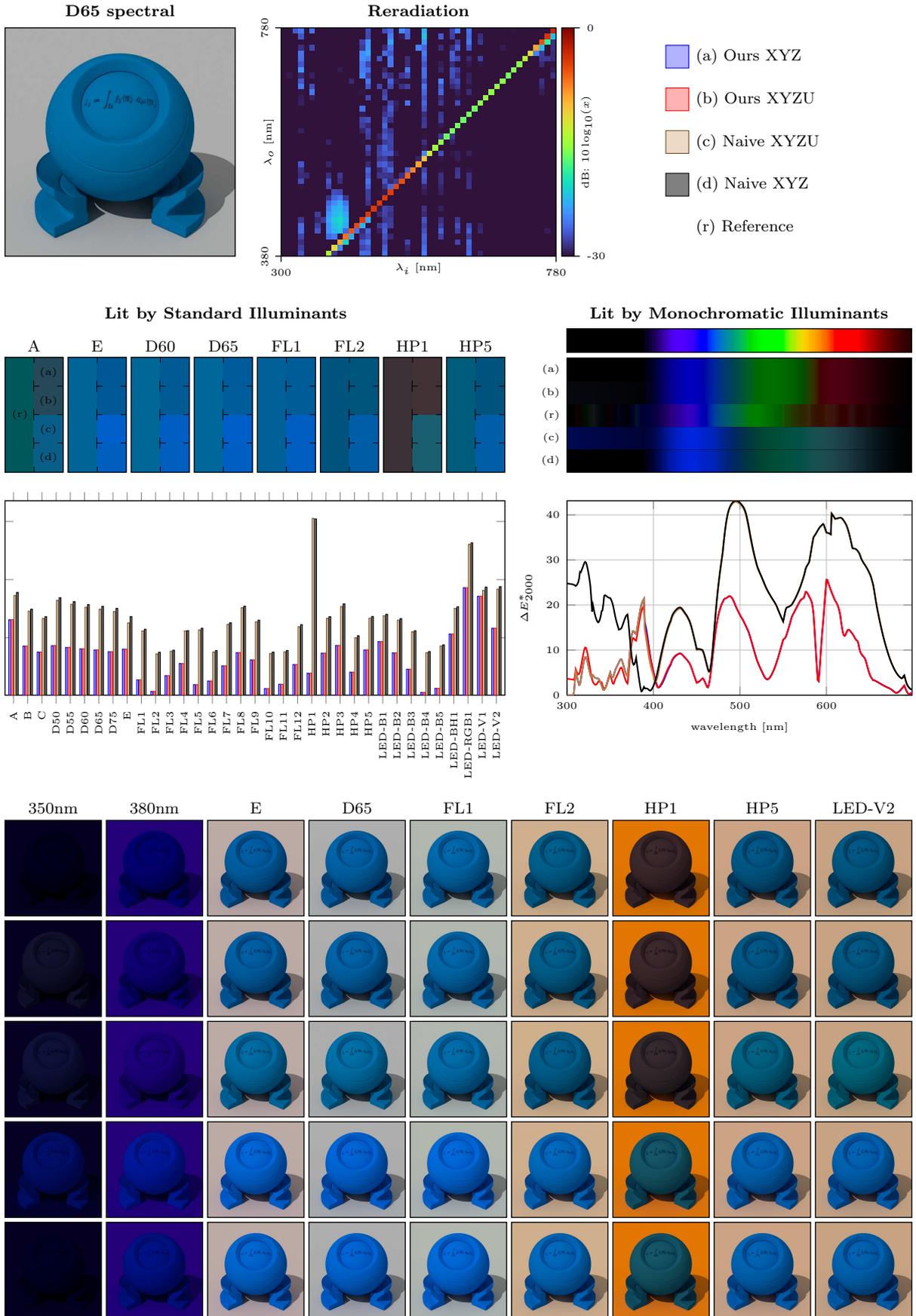
PEP1C



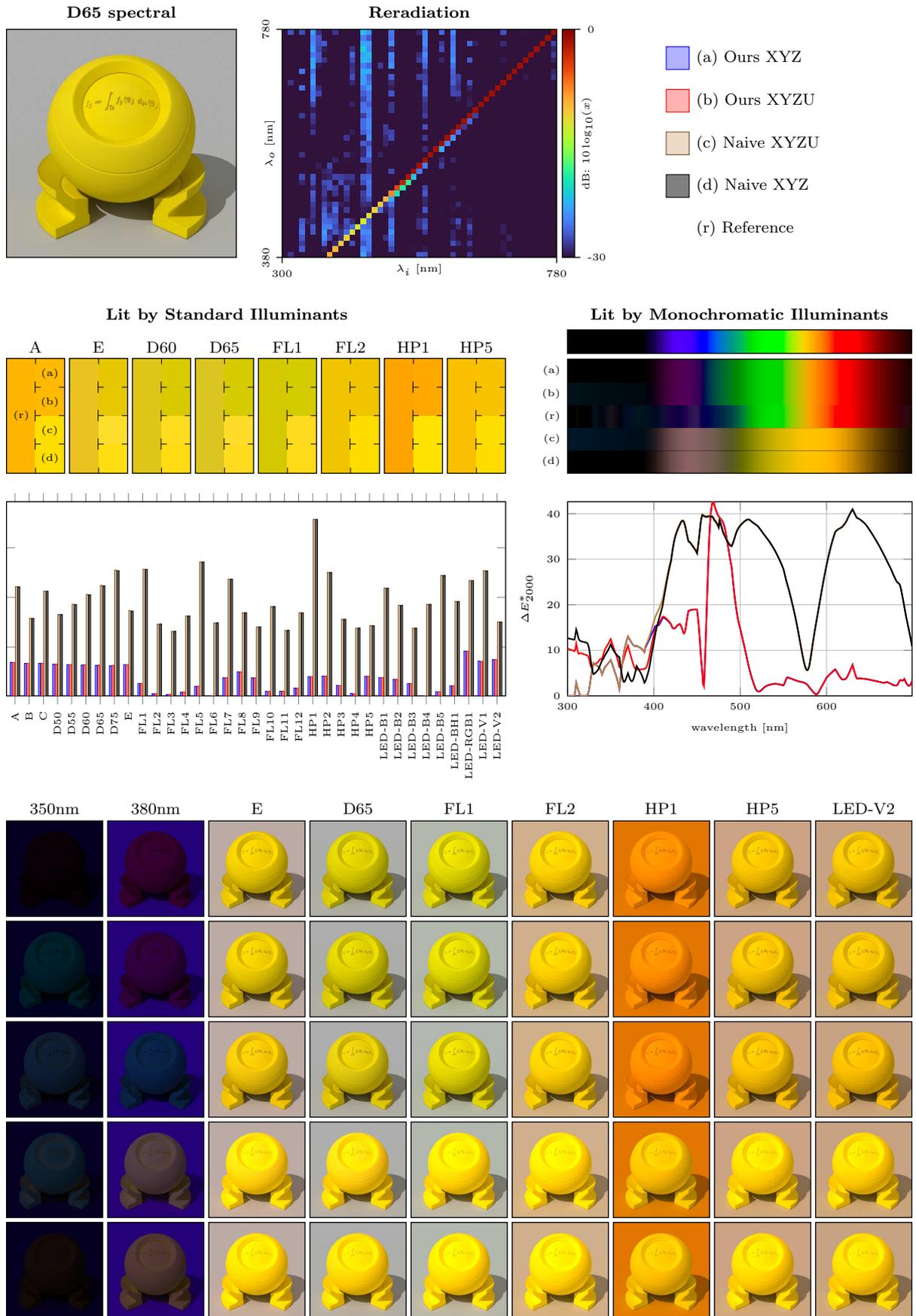
IXCSWH2



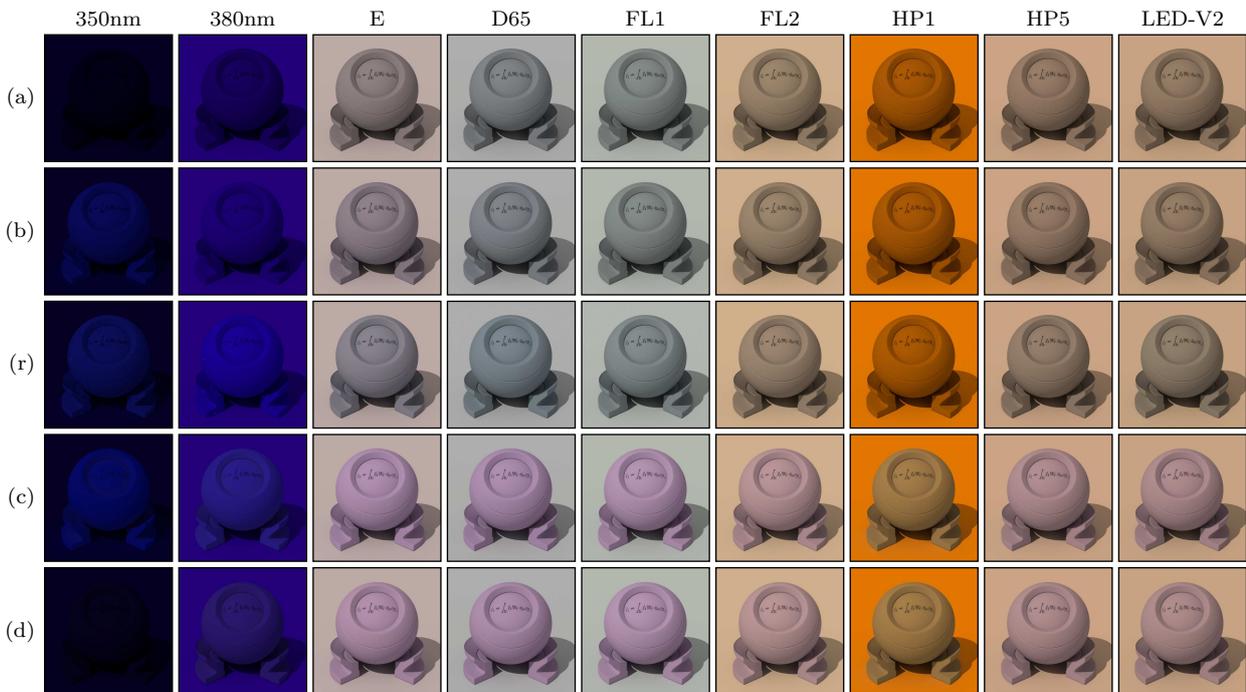
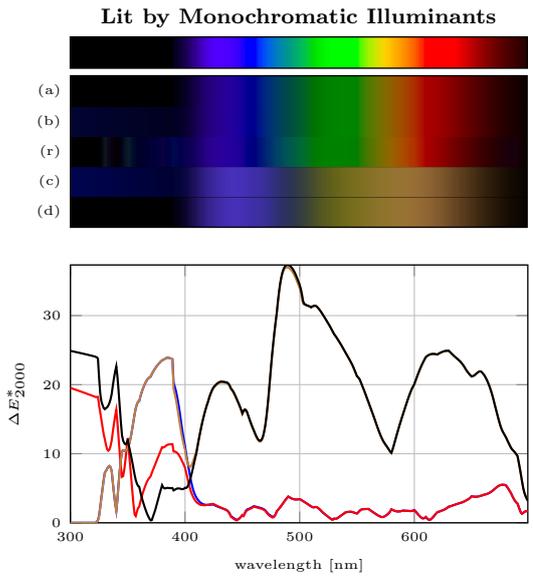
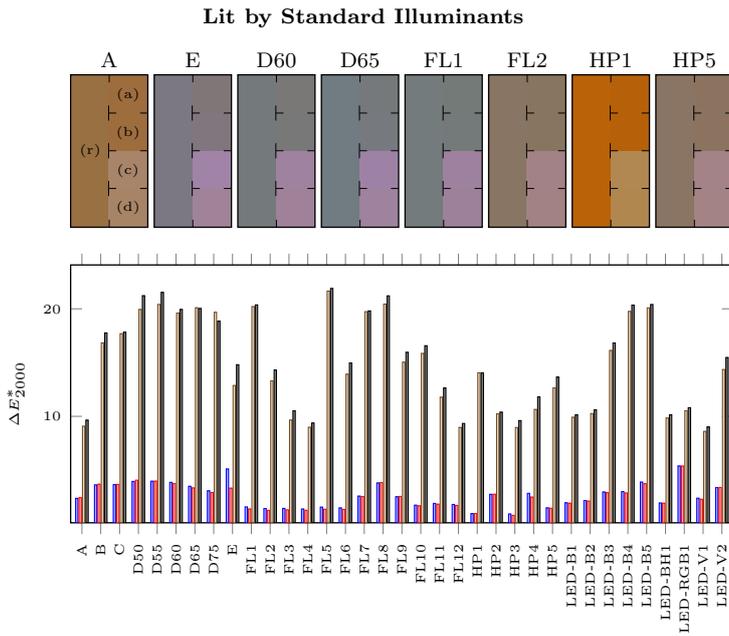
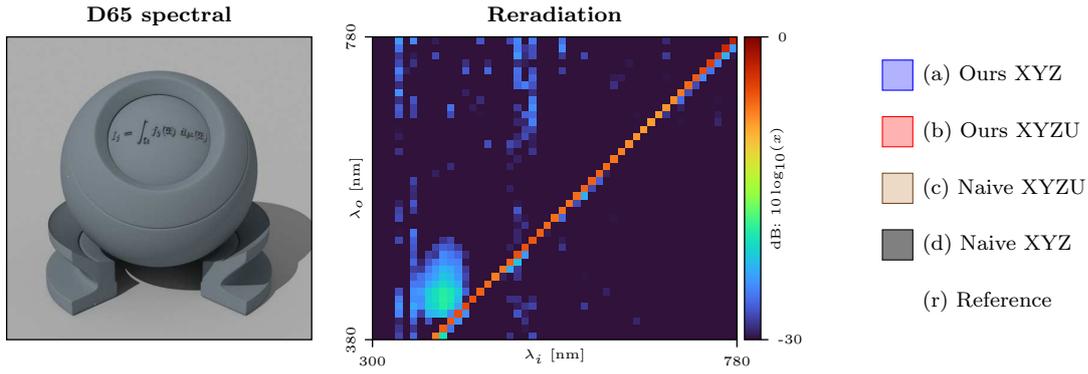
PXEROC1R



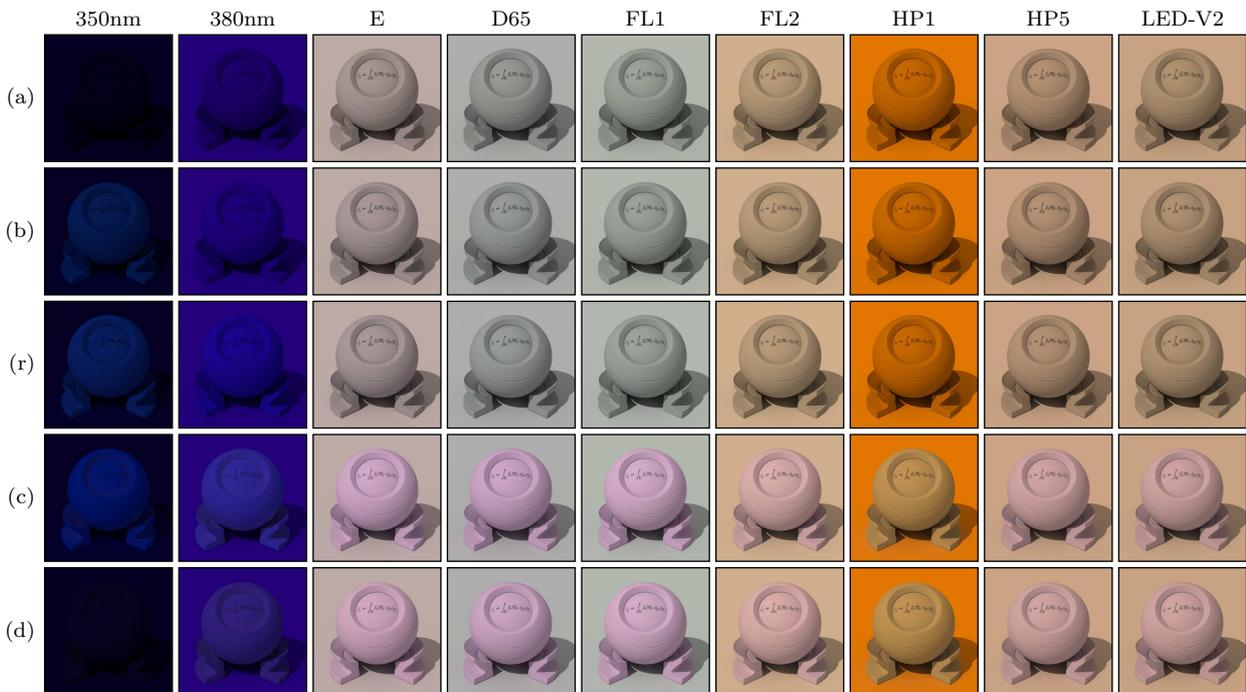
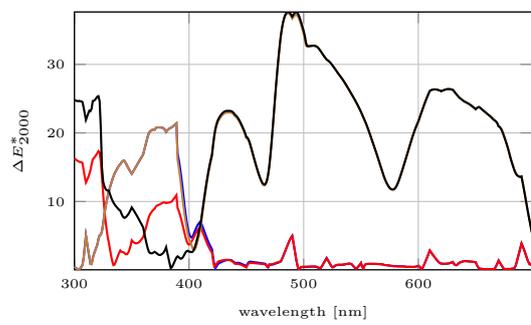
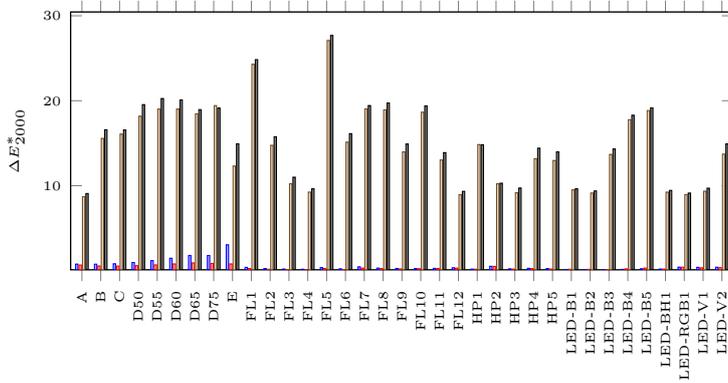
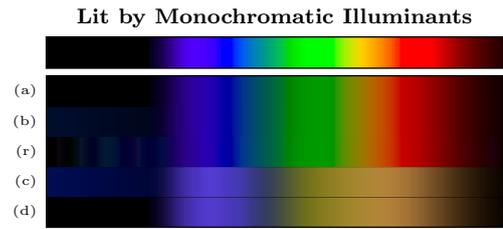
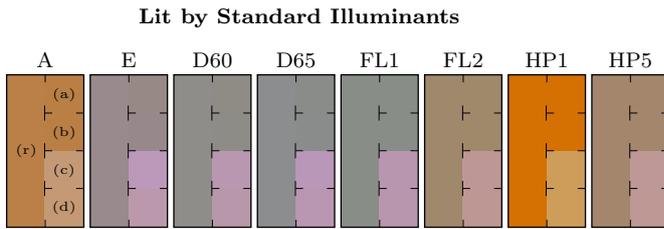
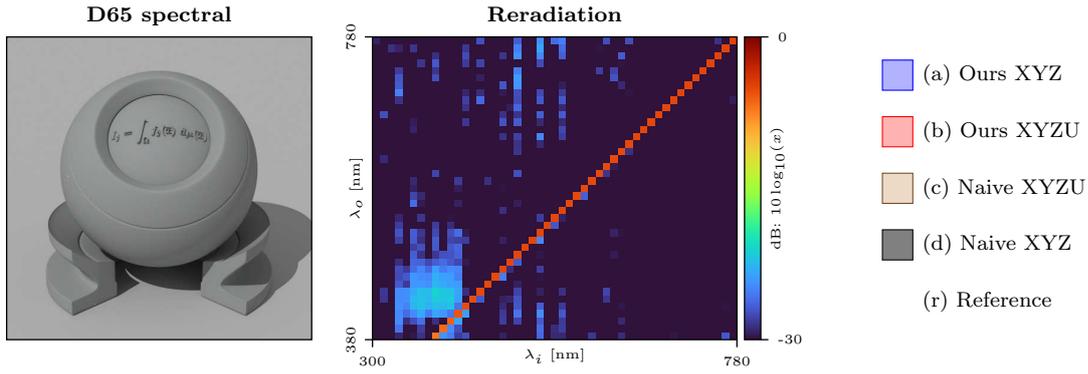
PLIWF1Y



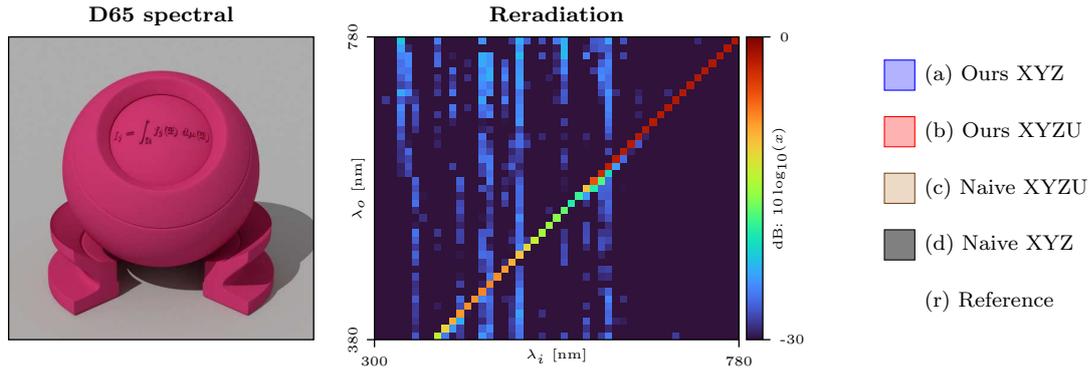
PKODXL5K



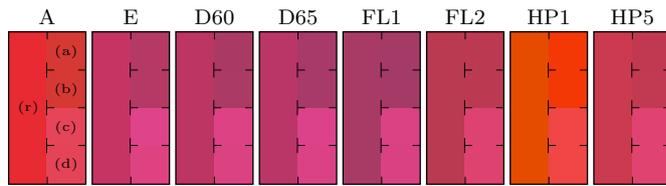
PLIWF4K



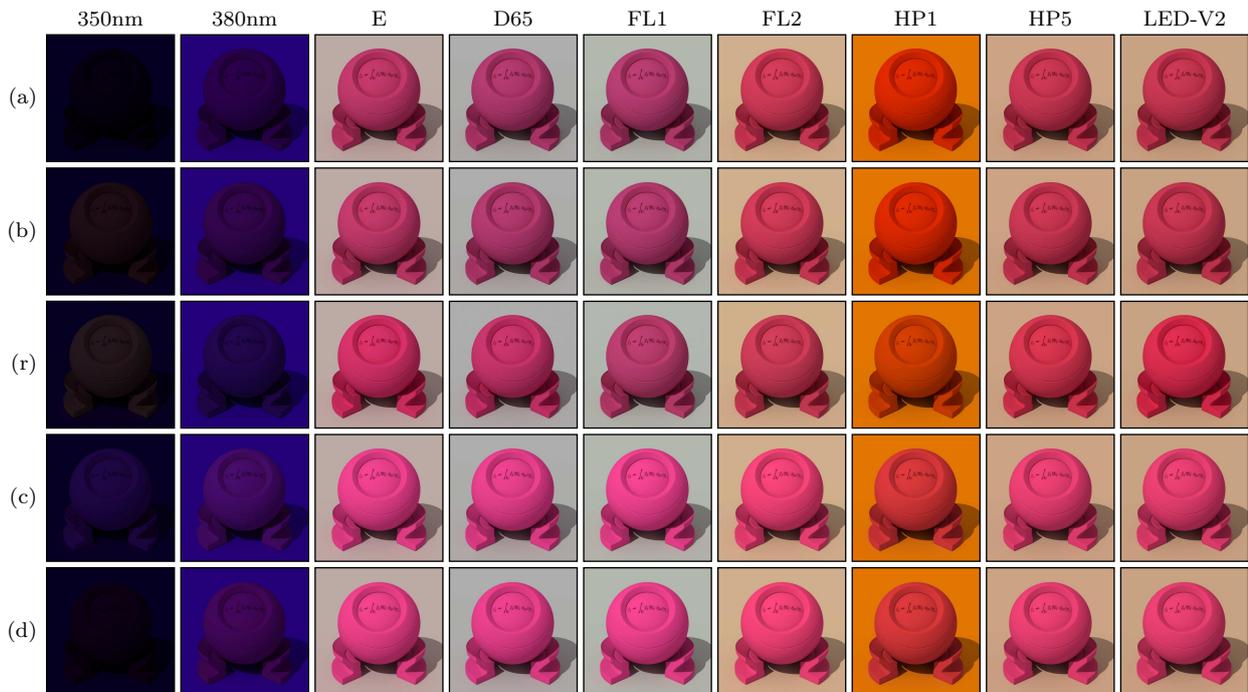
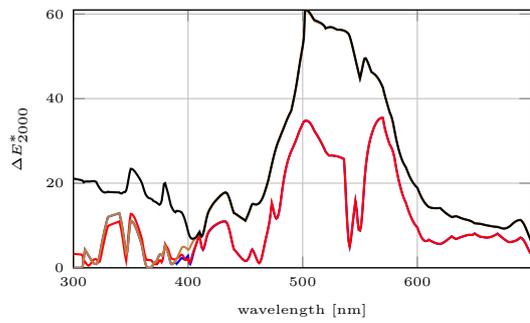
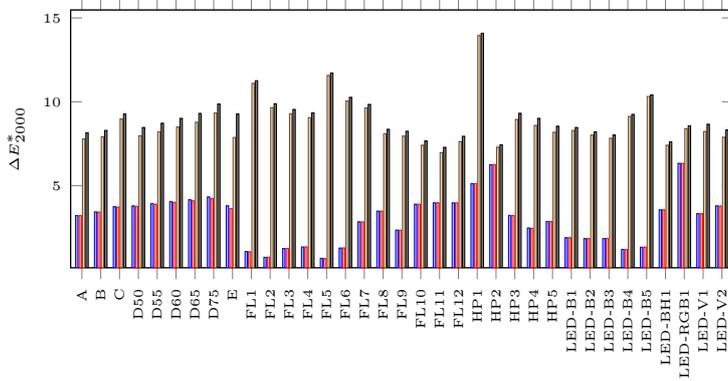
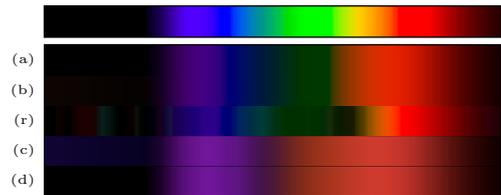
P3MP1M



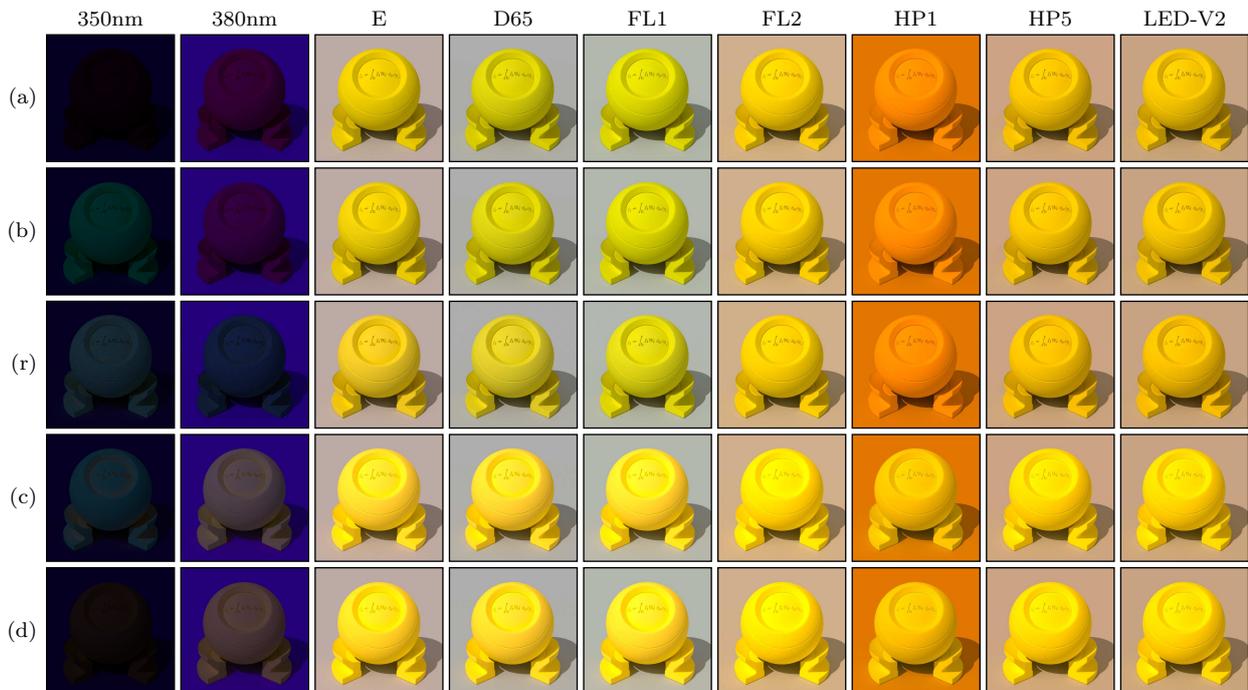
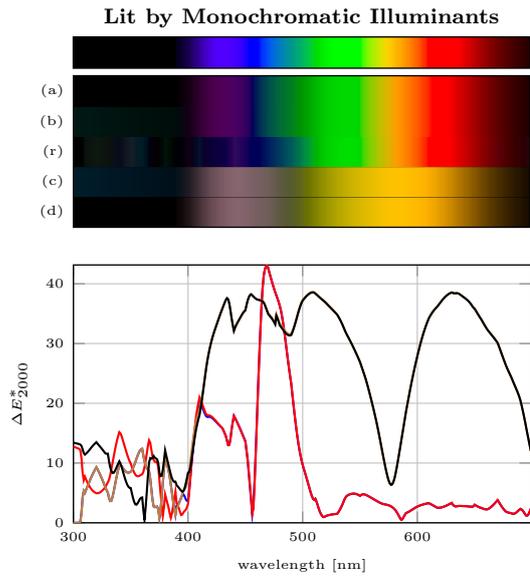
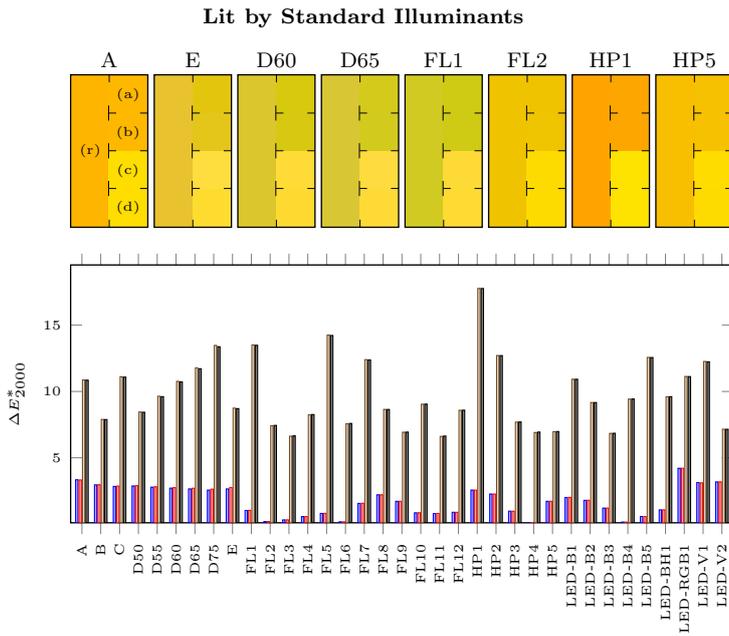
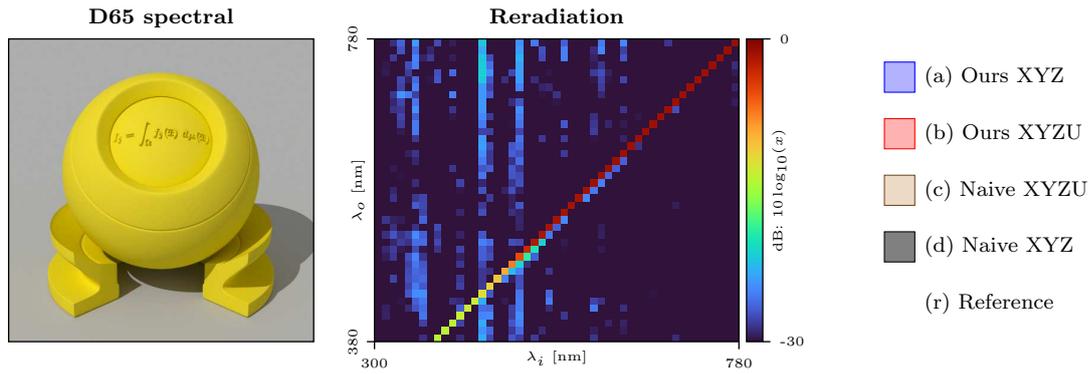
Lit by Standard Illuminants



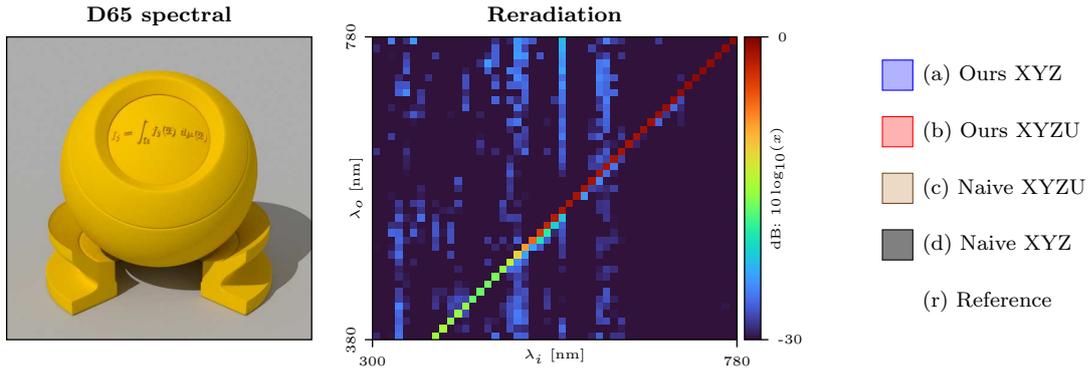
Lit by Monochromatic Illuminants



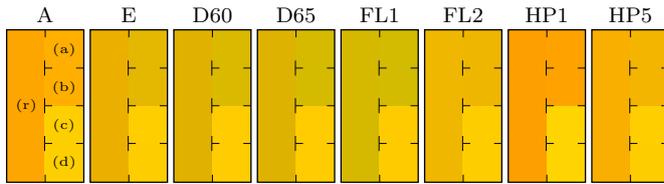
PXEROY1R



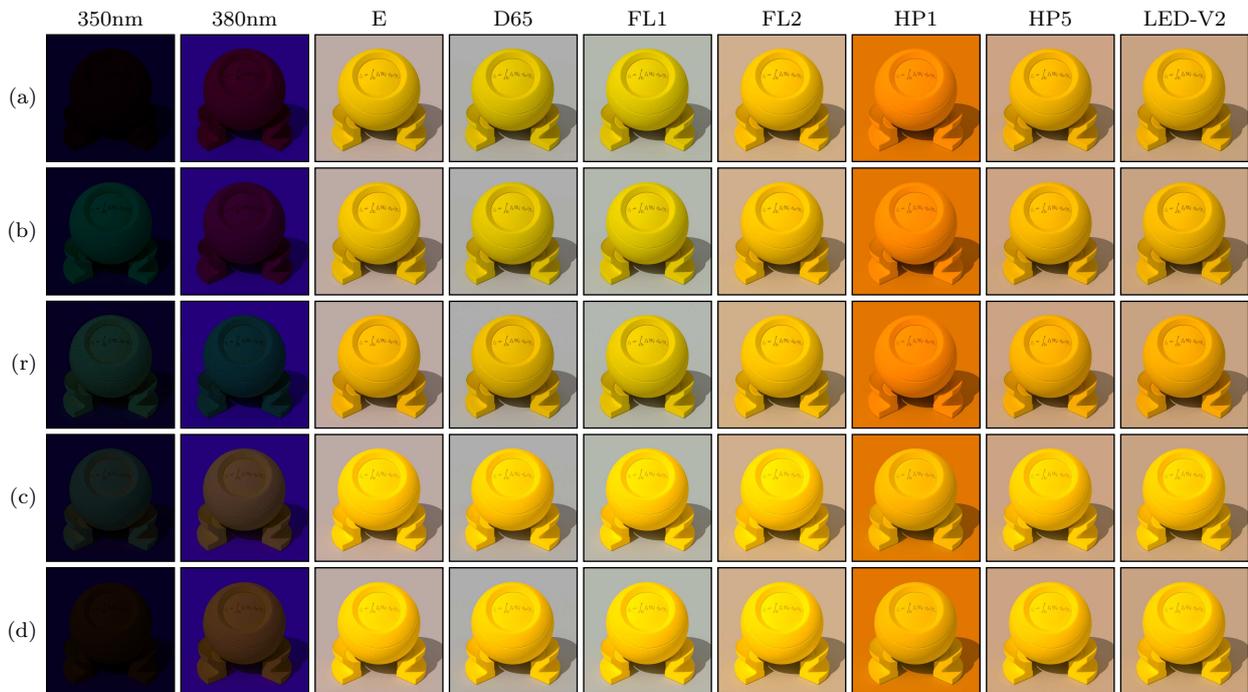
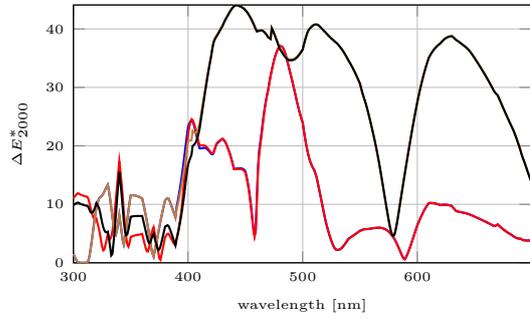
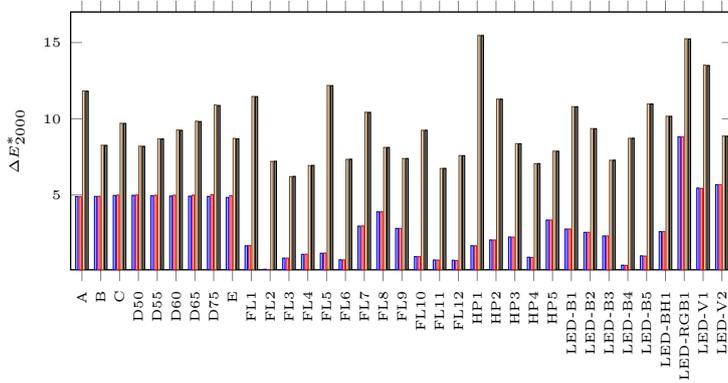
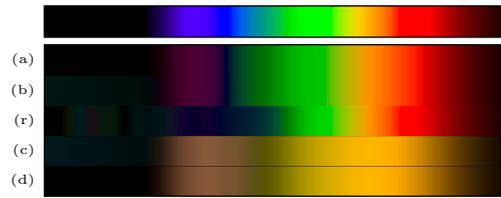
PFUJI1Y



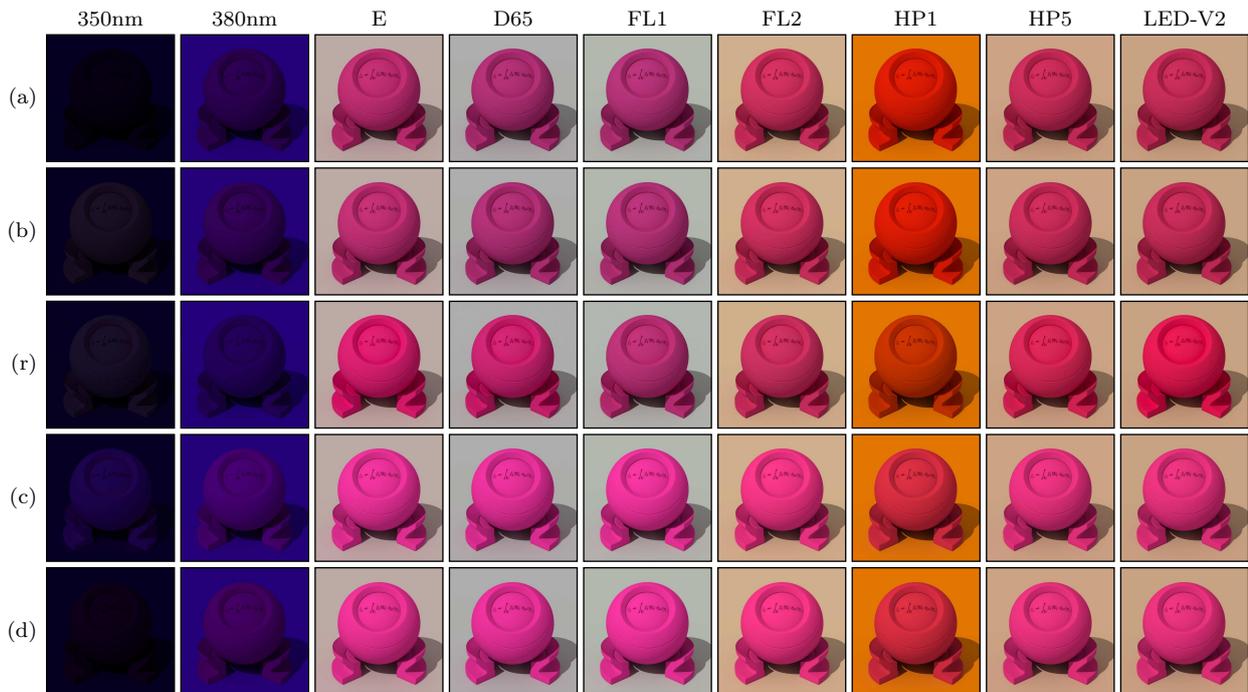
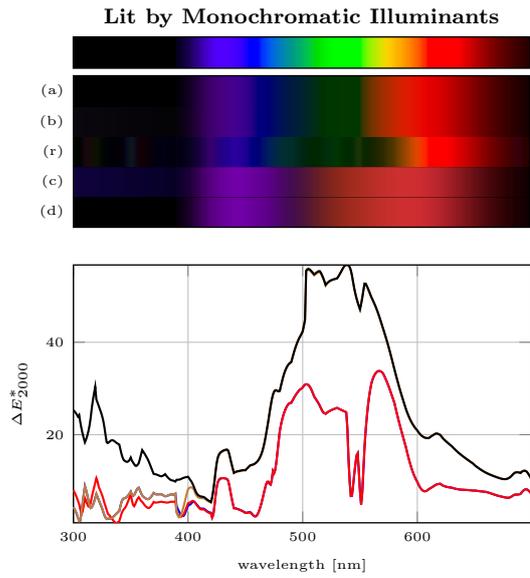
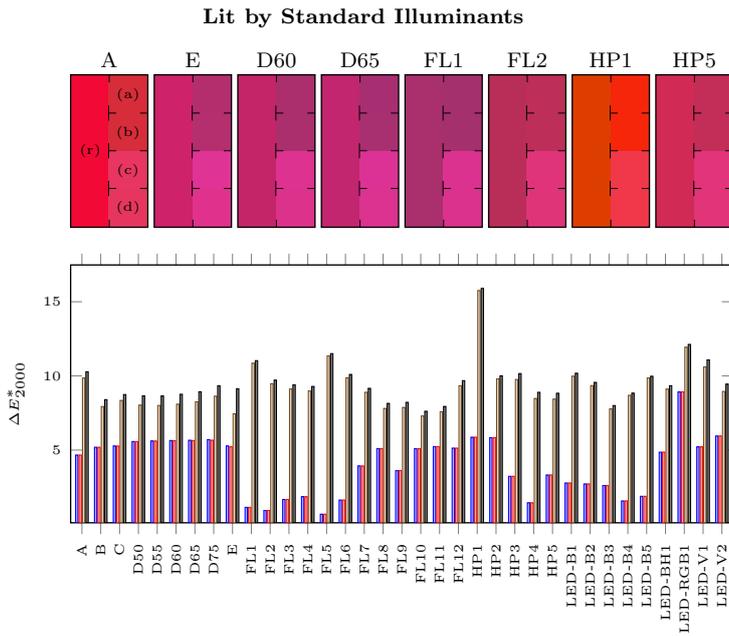
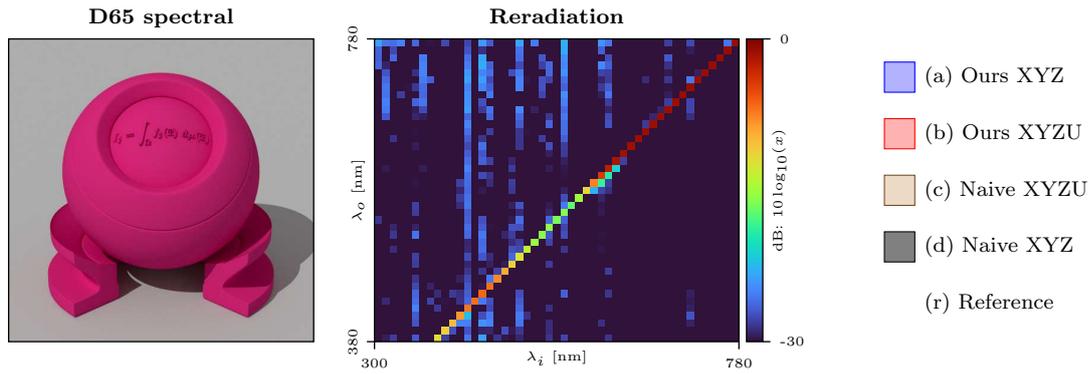
Lit by Standard Illuminants



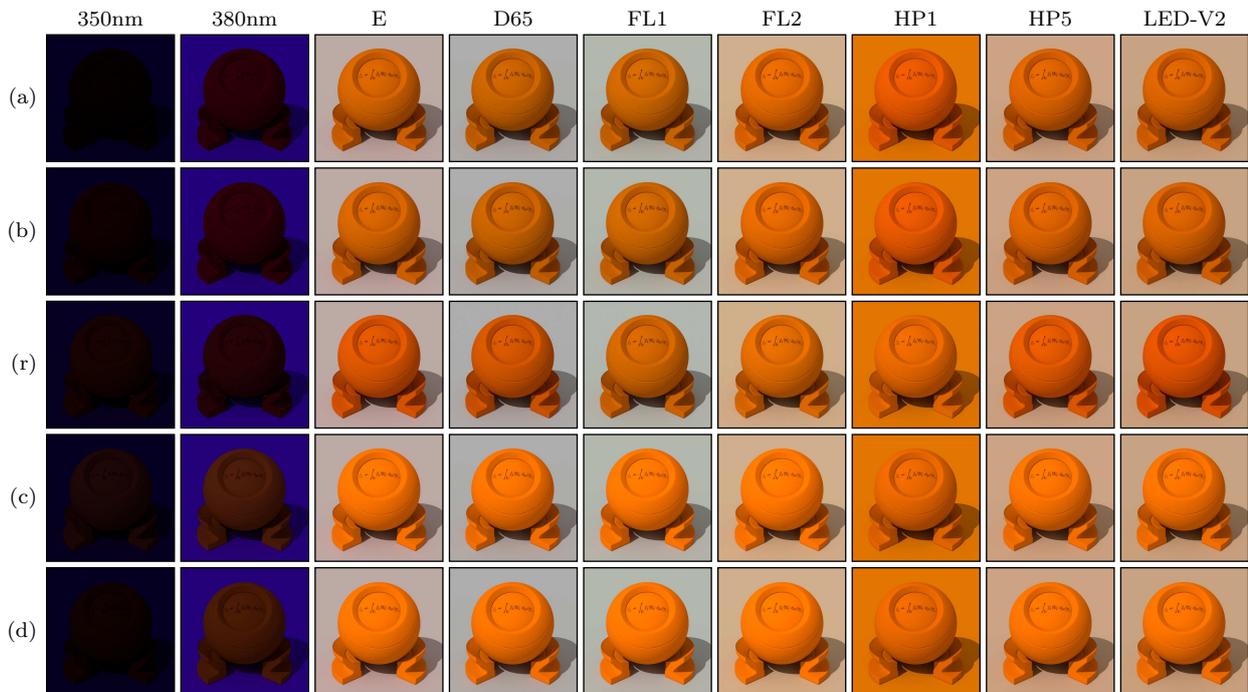
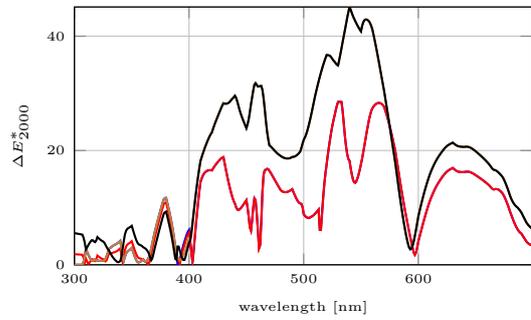
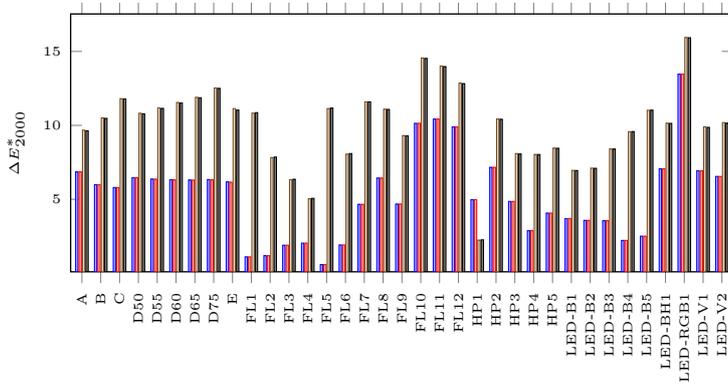
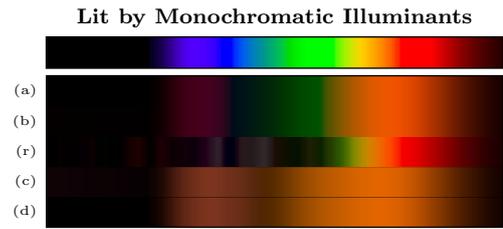
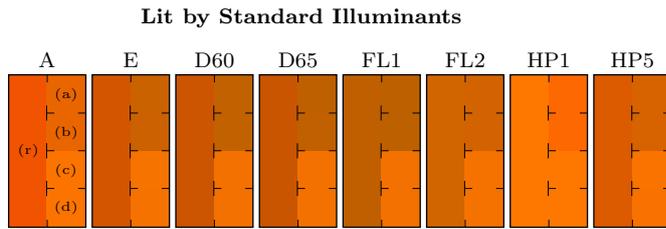
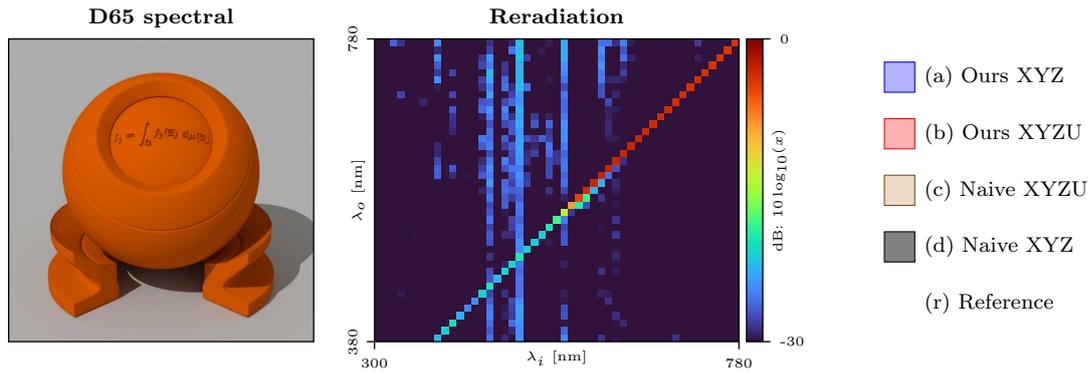
Lit by Monochromatic Illuminants



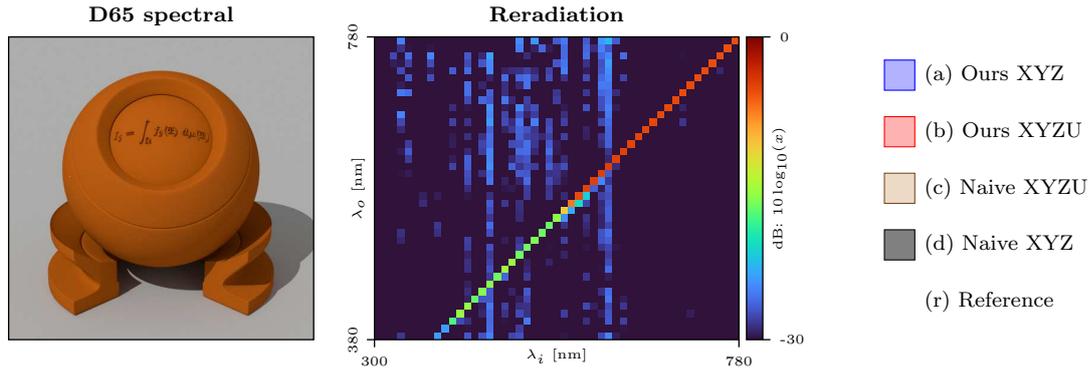
PEP1M



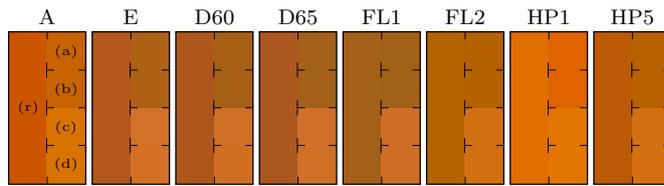
RM3MUNI



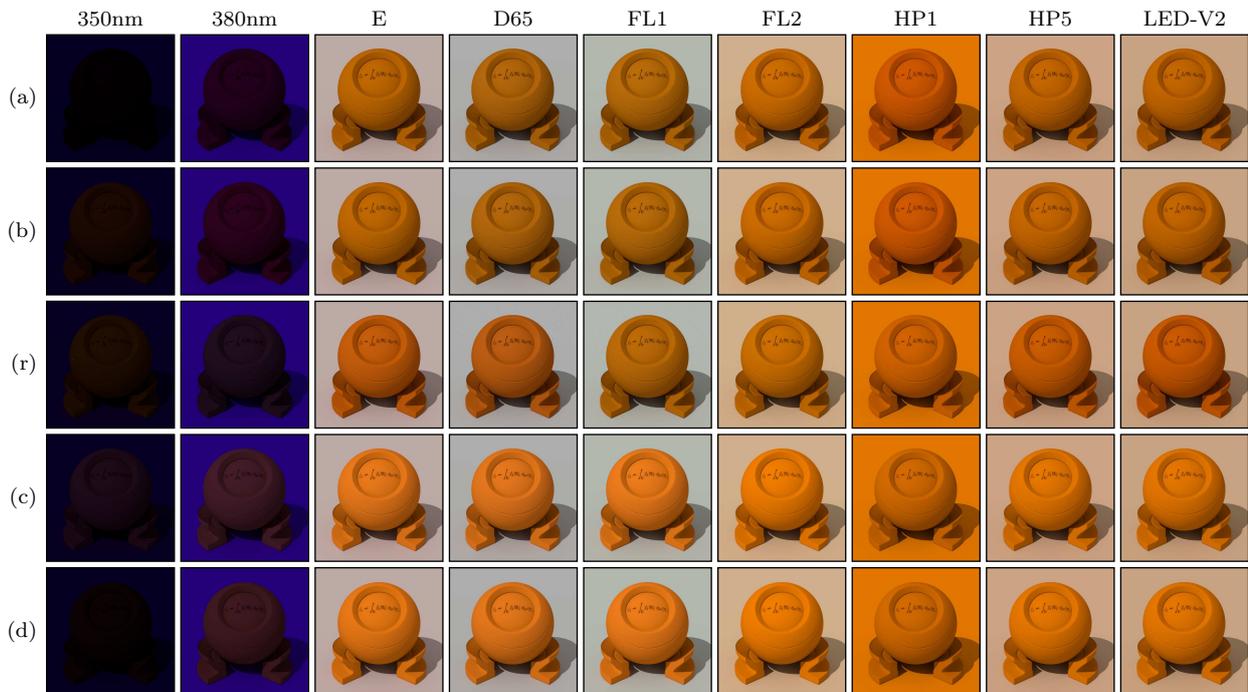
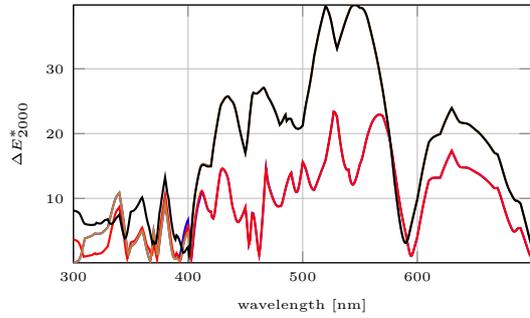
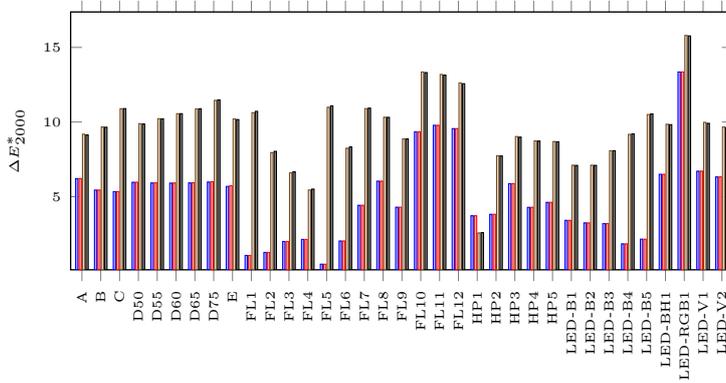
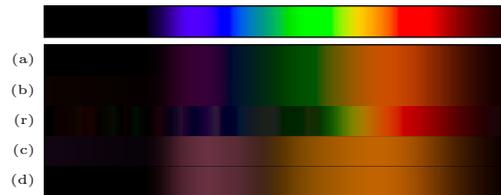
RM3MGRID



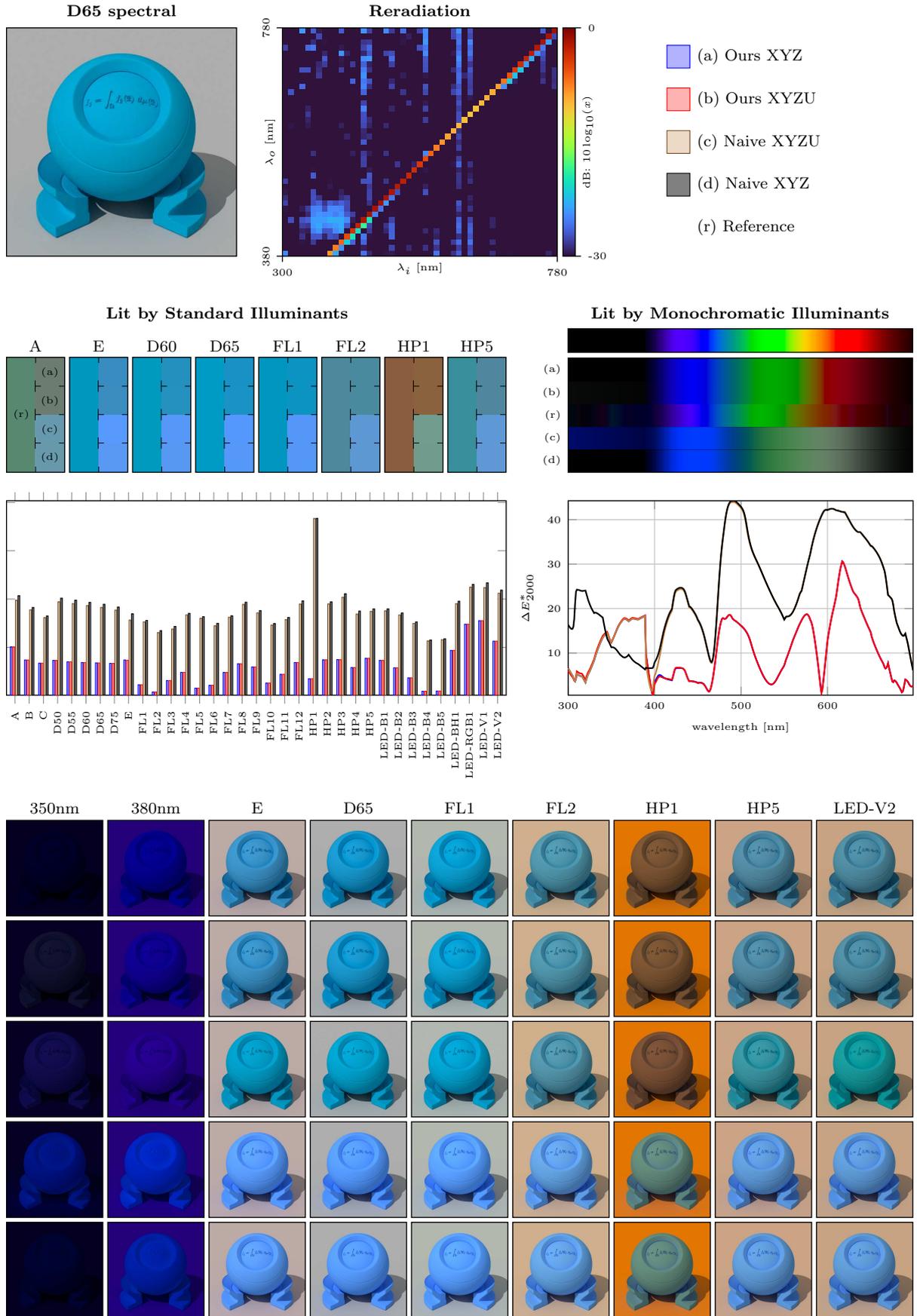
Lit by Standard Illuminants



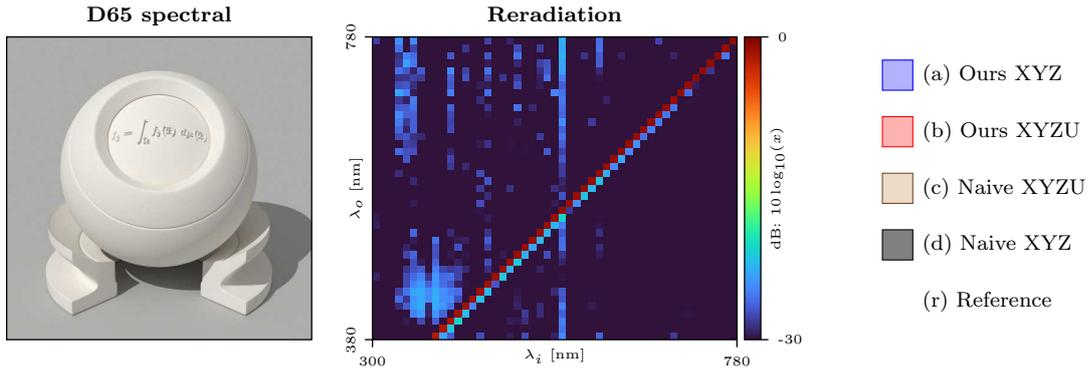
Lit by Monochromatic Illuminants



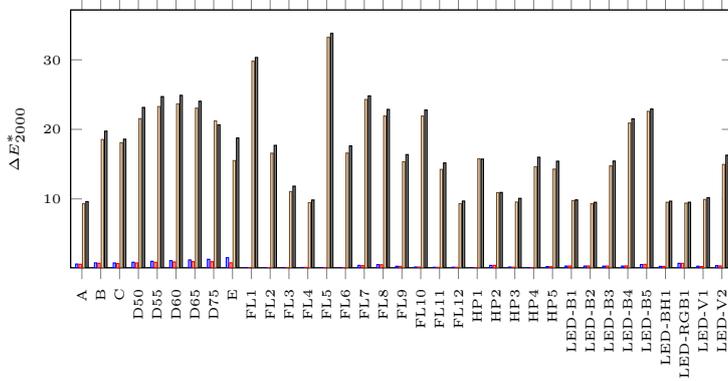
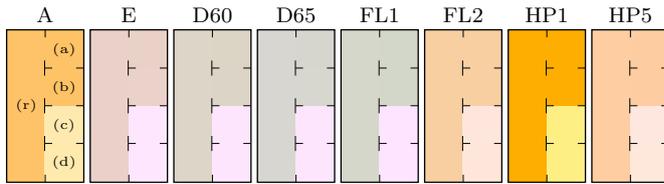
PHP8RV5C



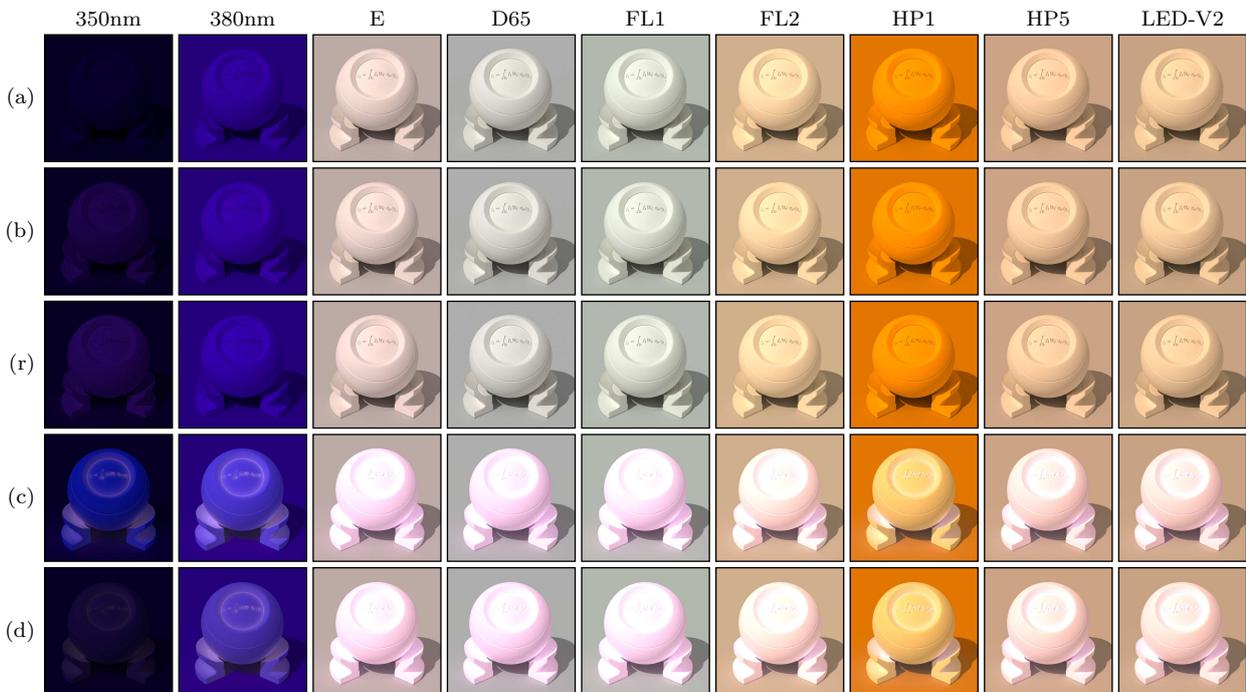
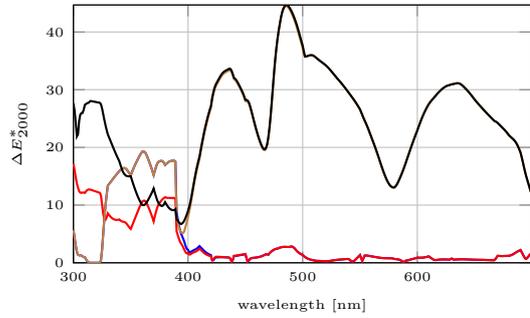
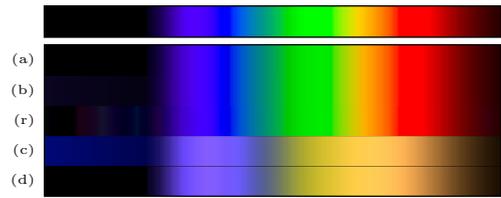
INCWHITE



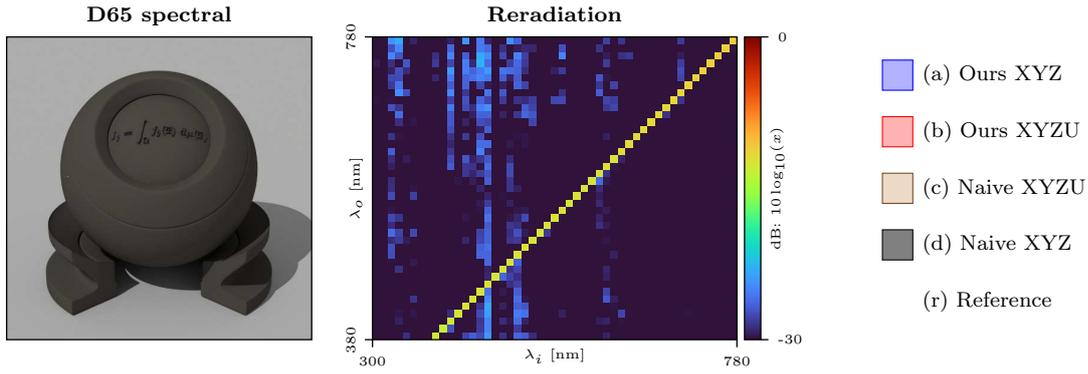
Lit by Standard Illuminants



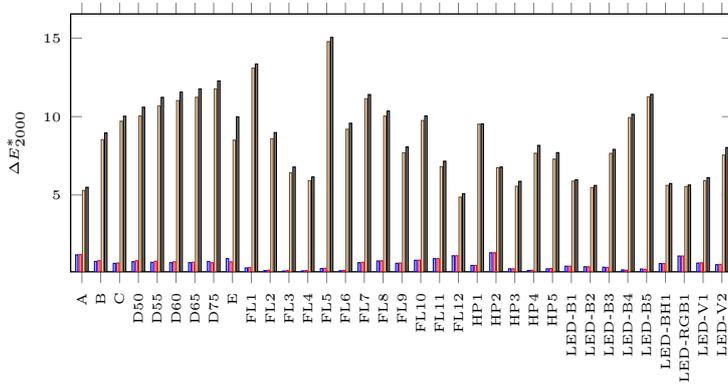
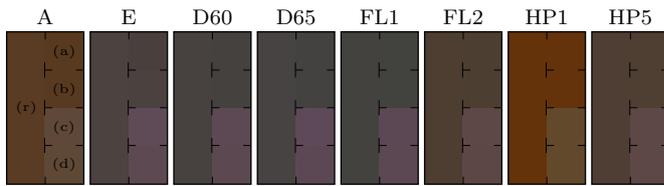
Lit by Monochromatic Illuminants



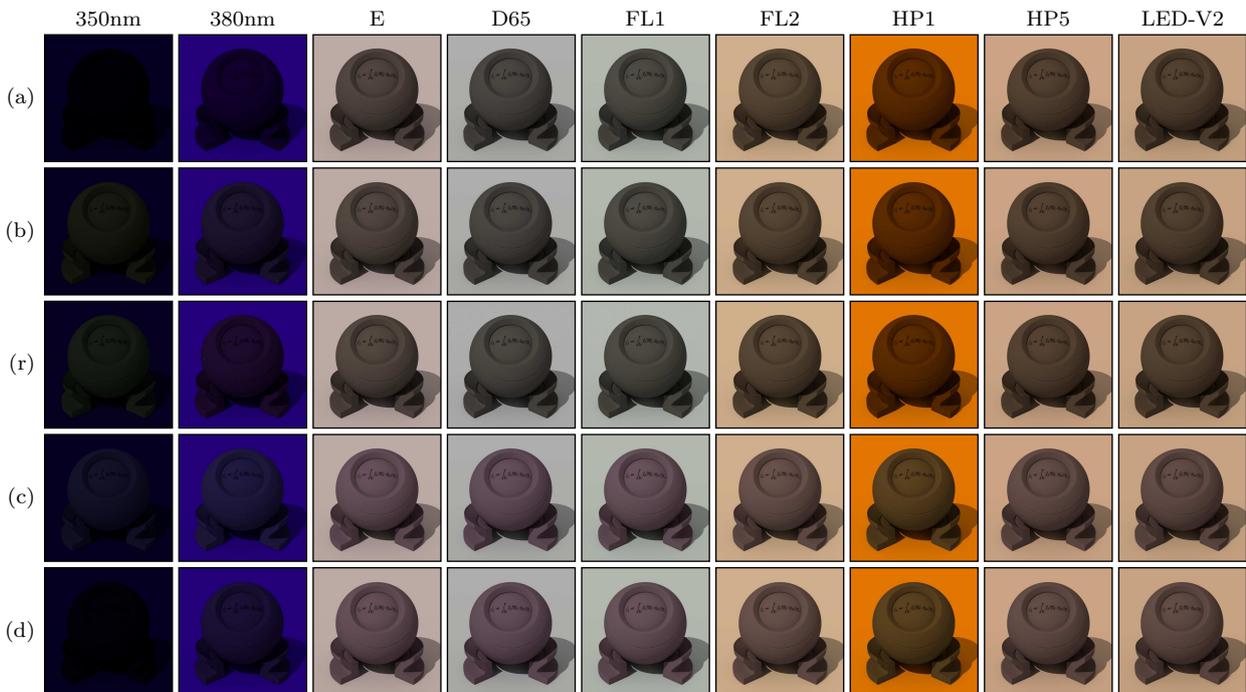
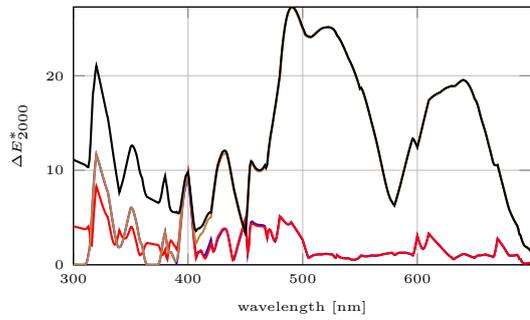
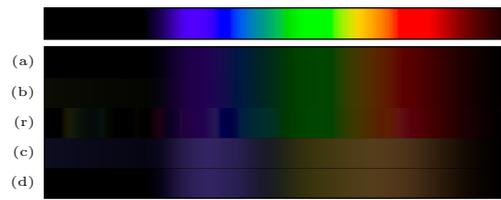
PLTOSF1K



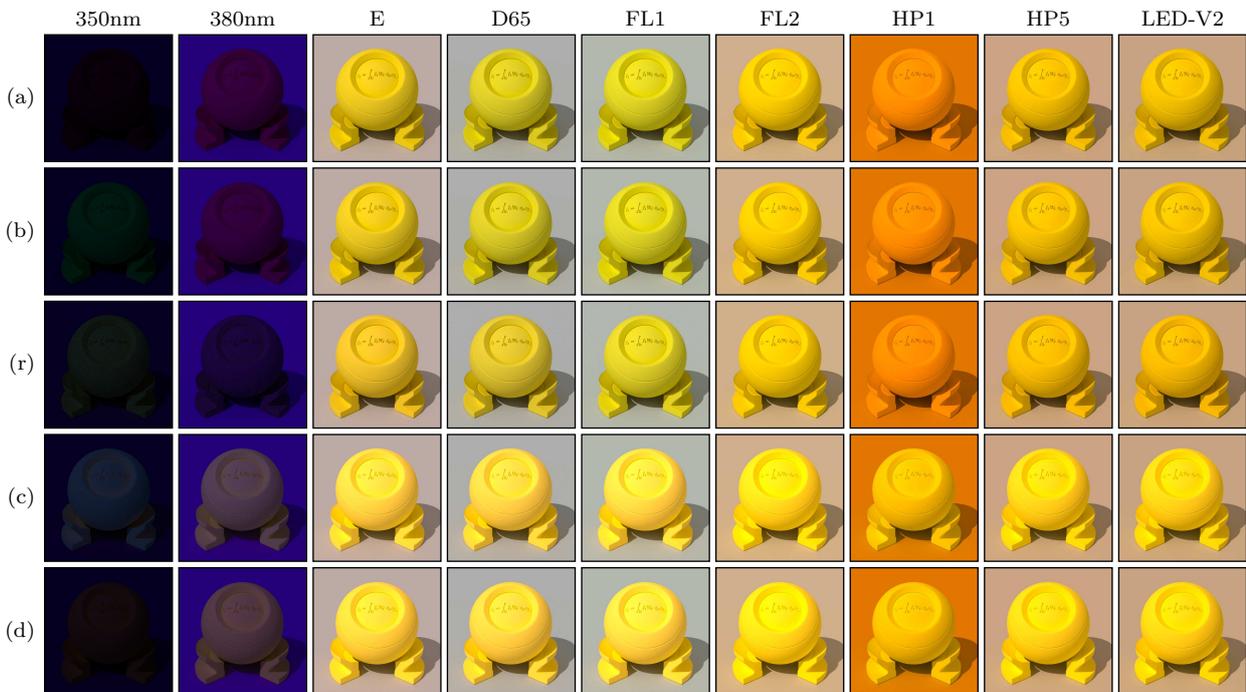
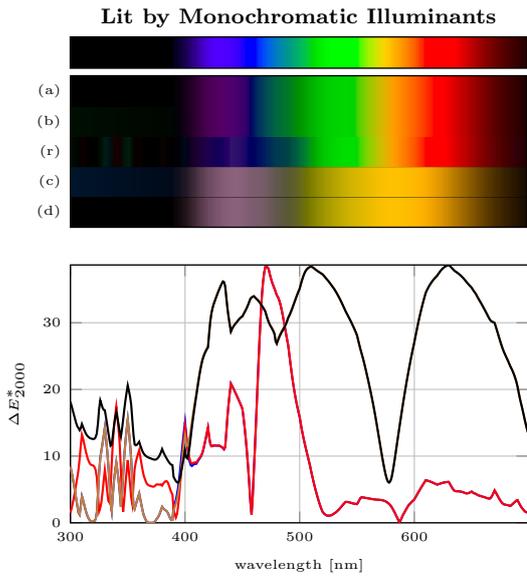
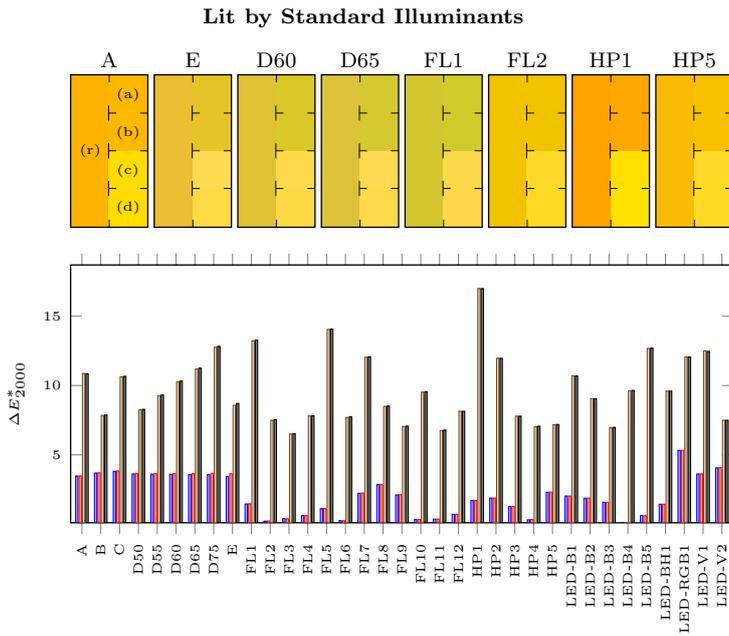
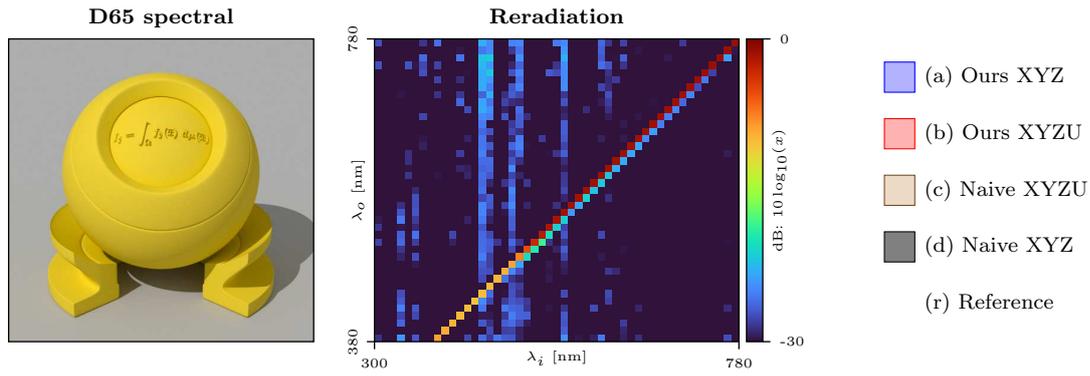
Lit by Standard Illuminants



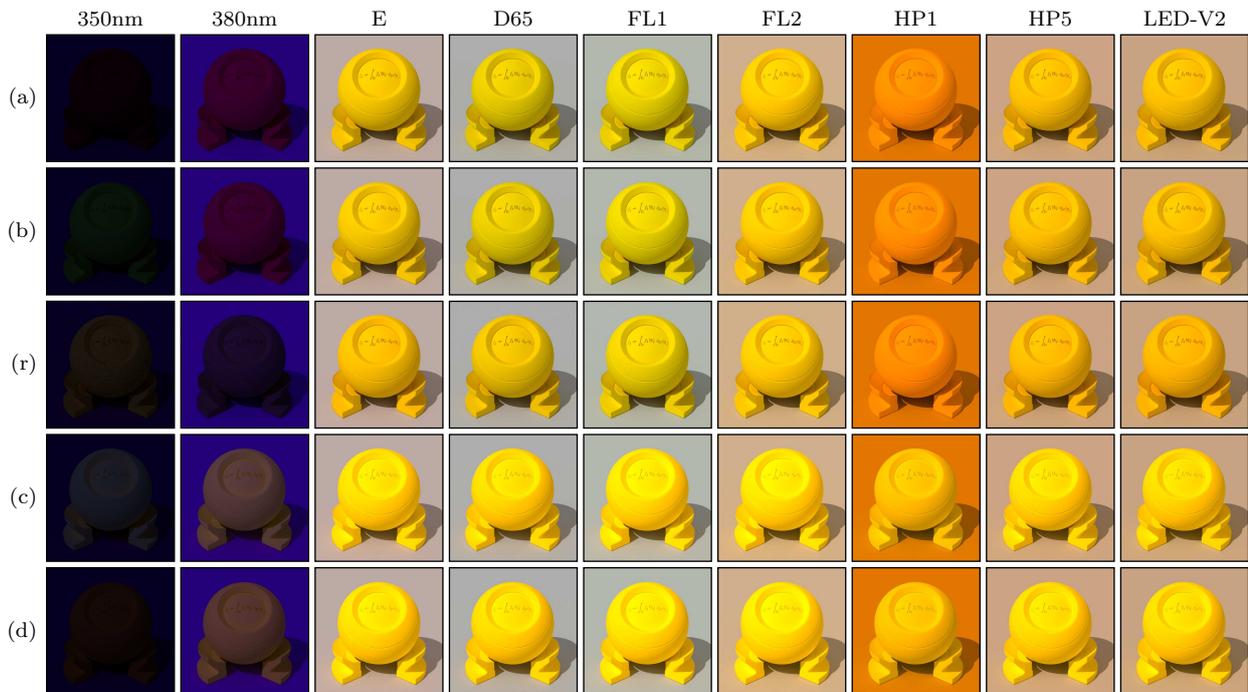
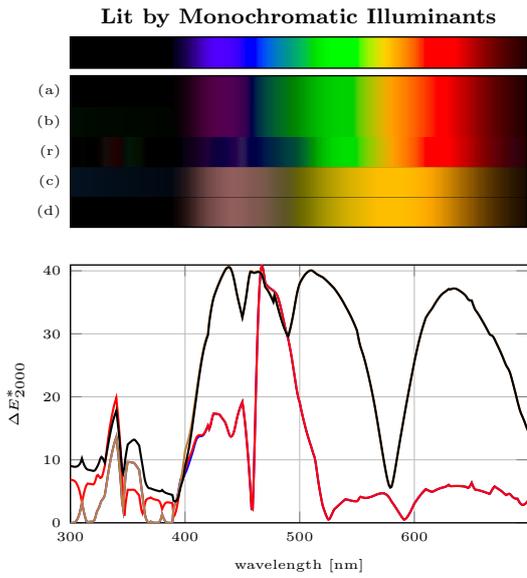
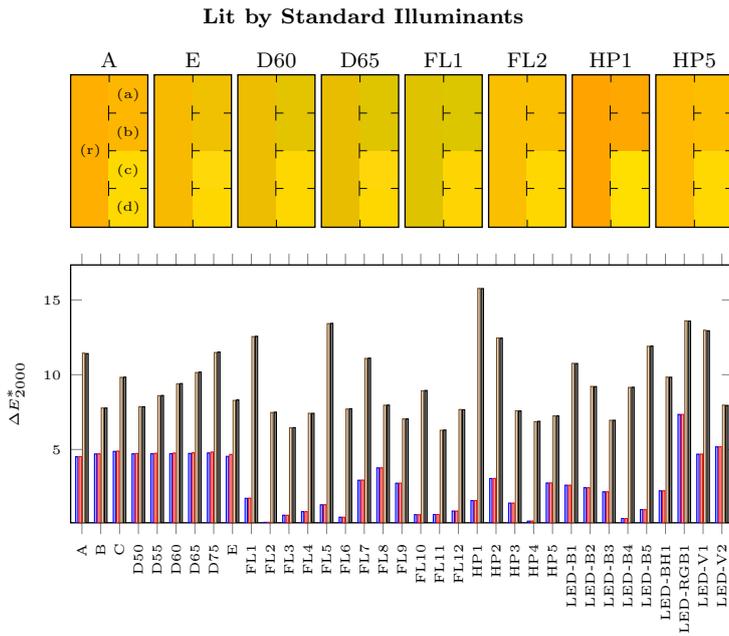
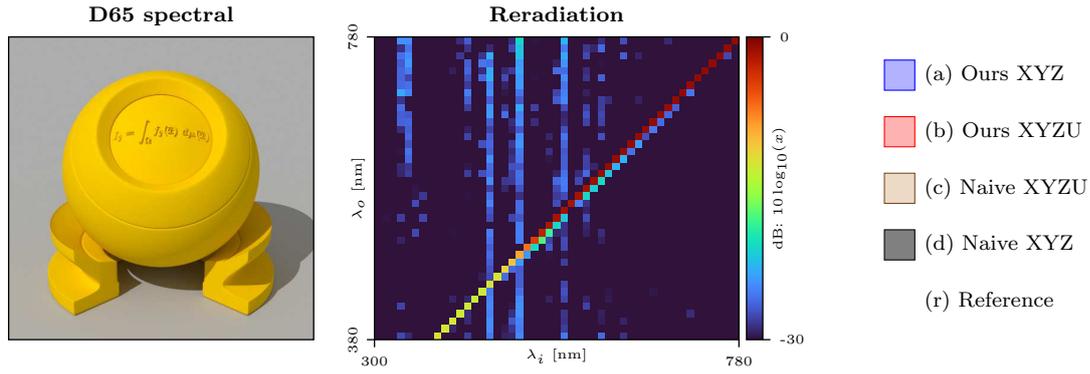
Lit by Monochromatic Illuminants



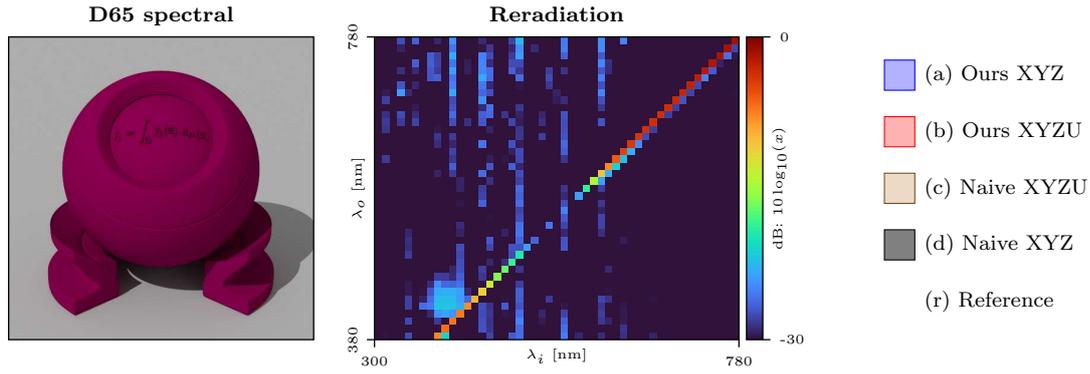
PLTOSF1Y



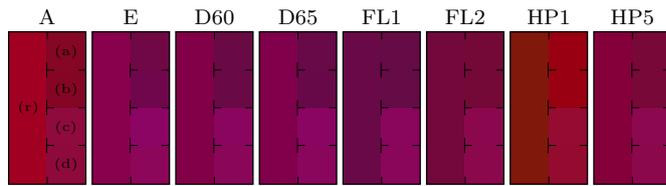
PHP8RV1Y



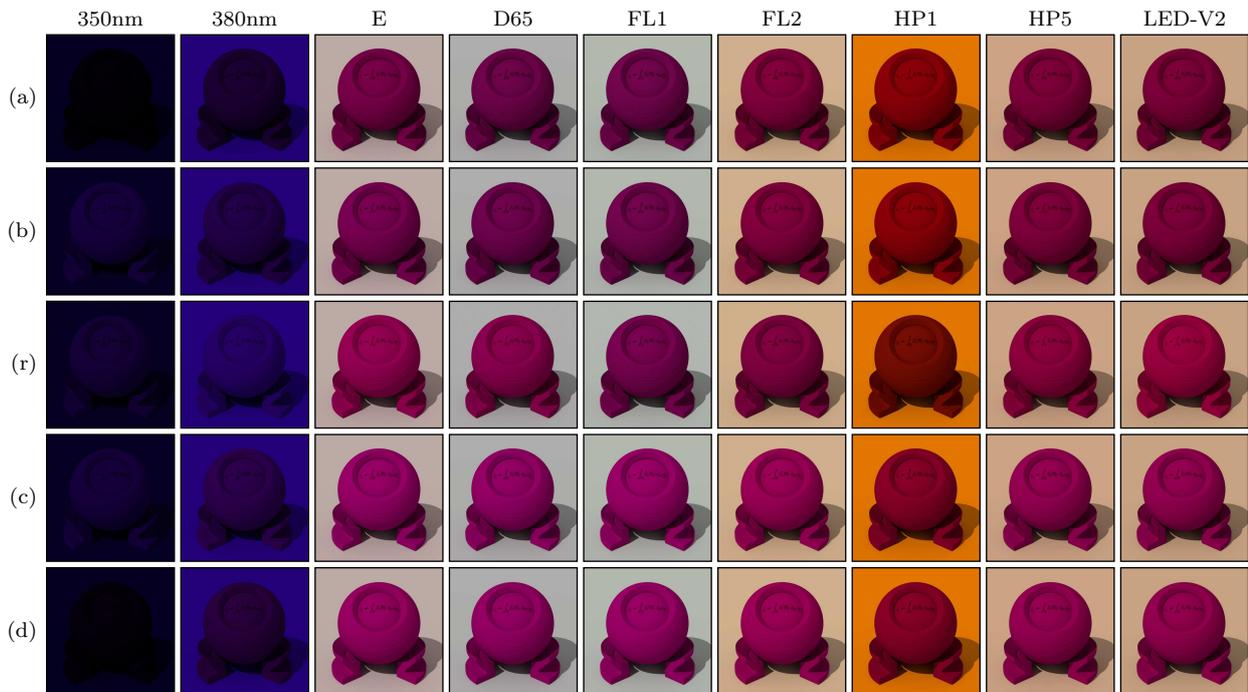
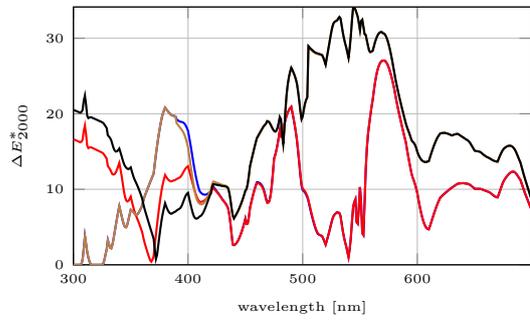
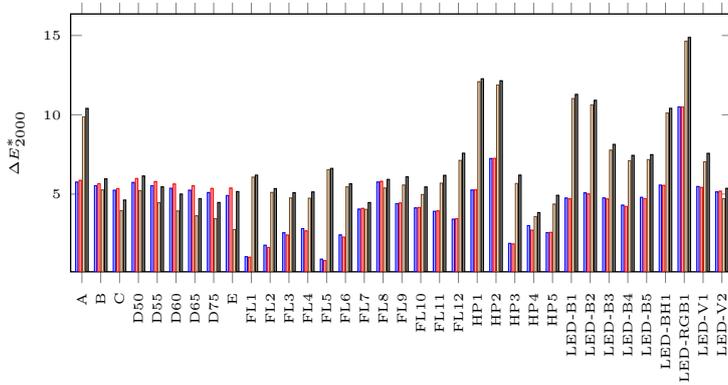
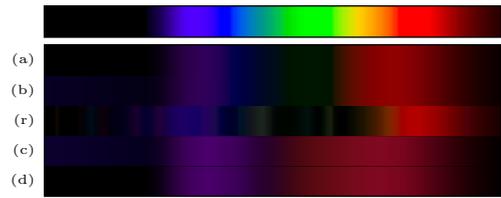
PKODXL1M



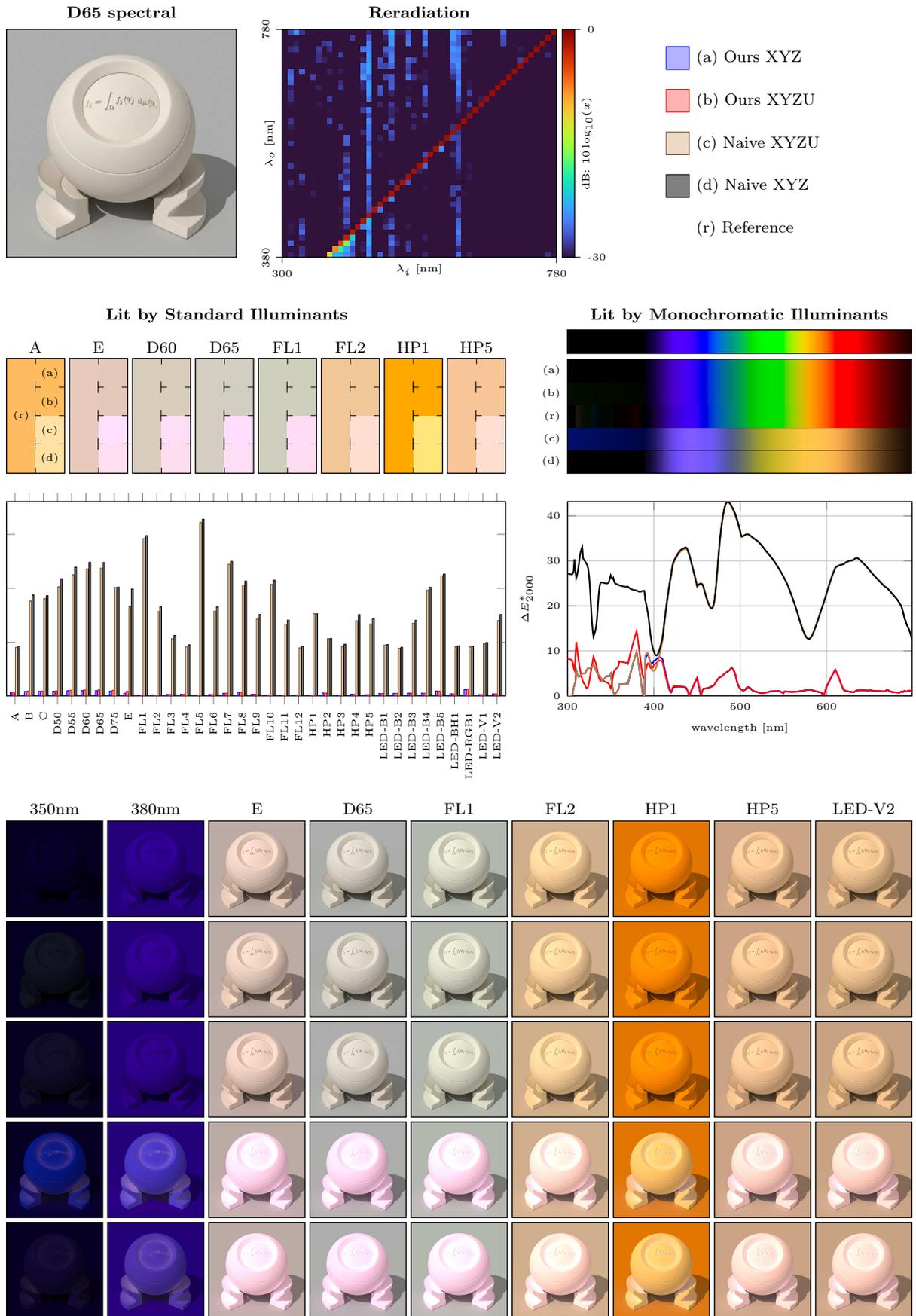
Lit by Standard Illuminants



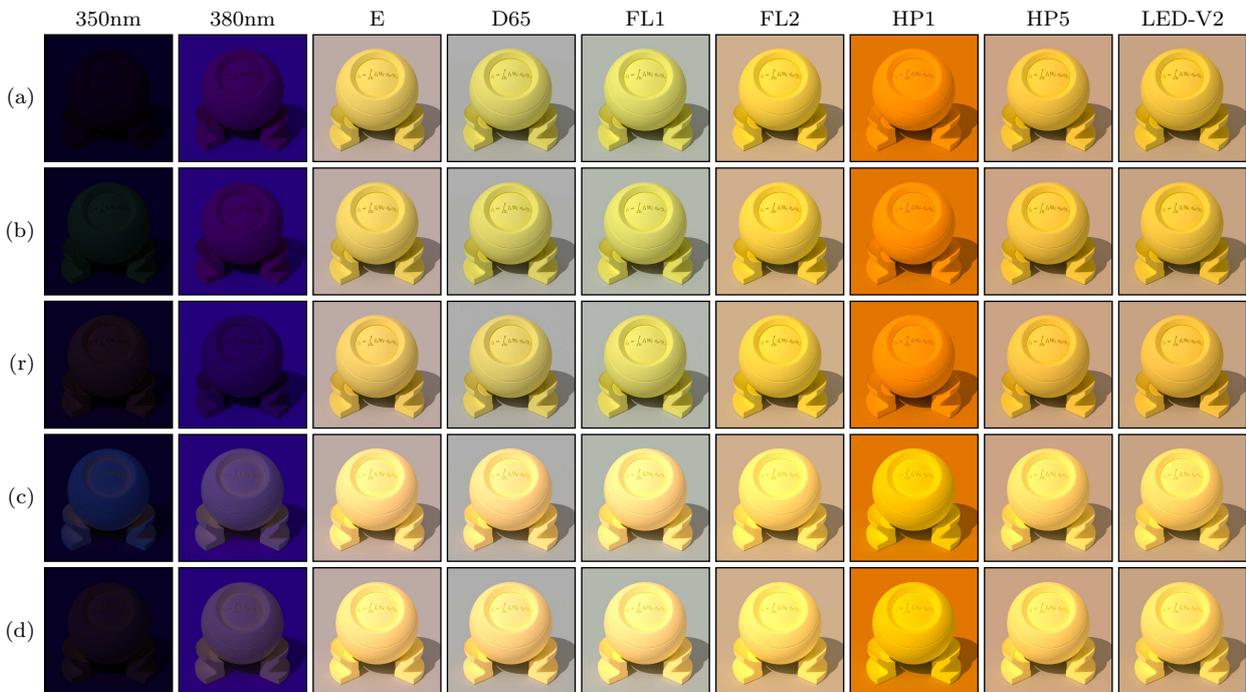
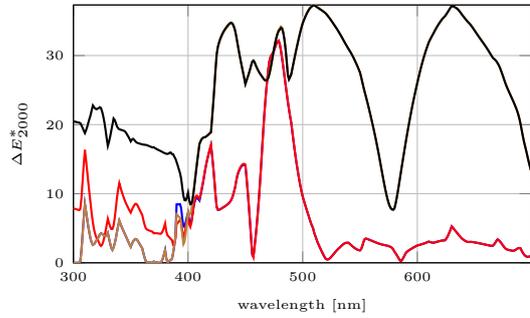
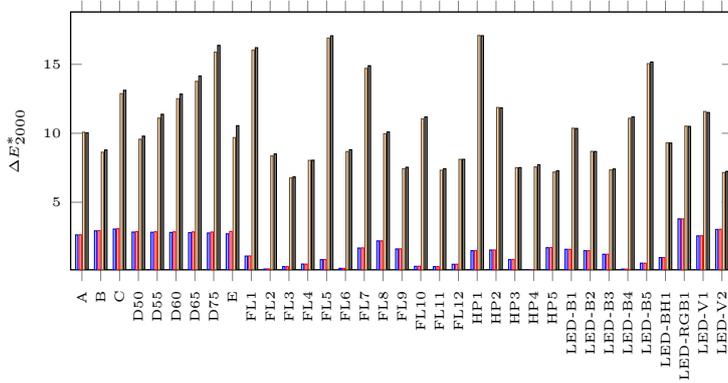
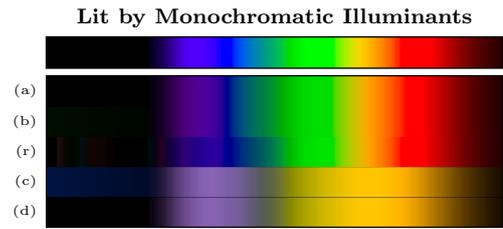
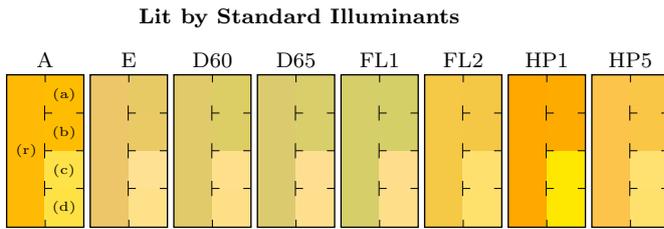
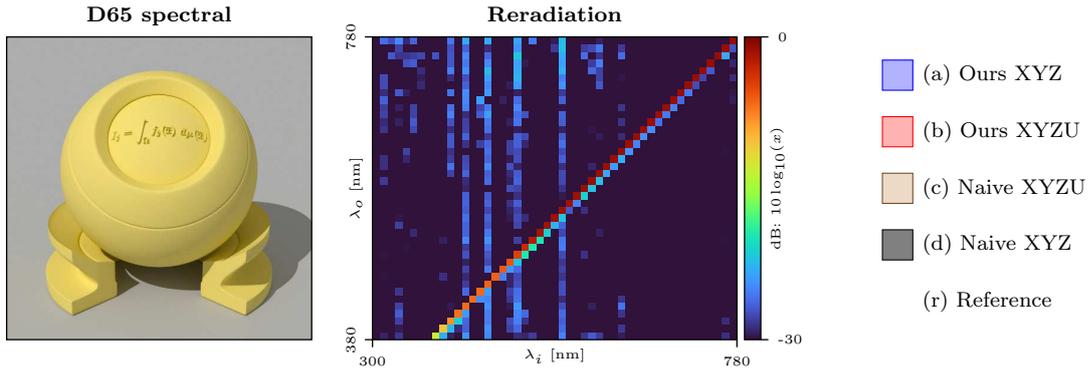
Lit by Monochromatic Illuminants



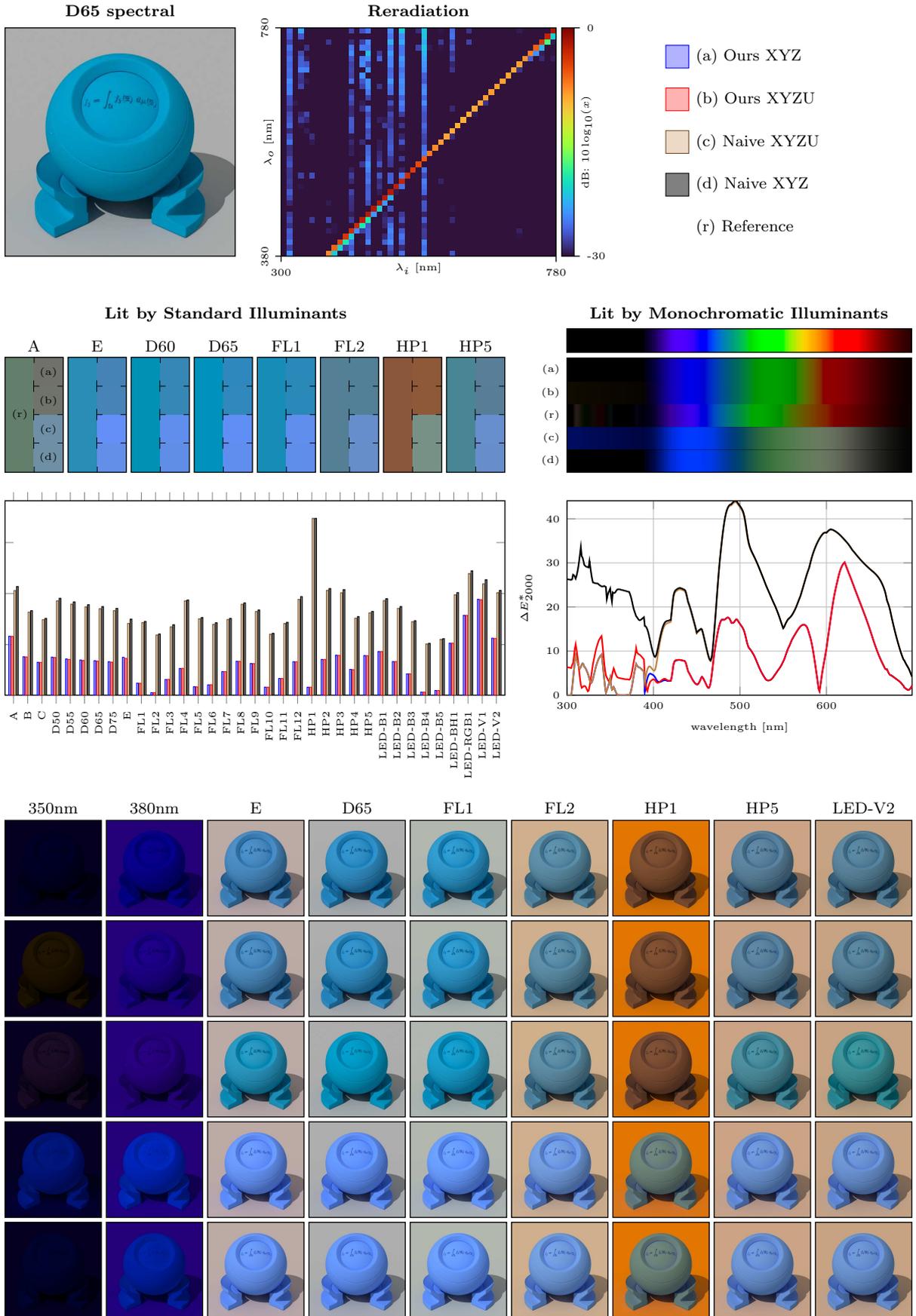
P3MP1Y



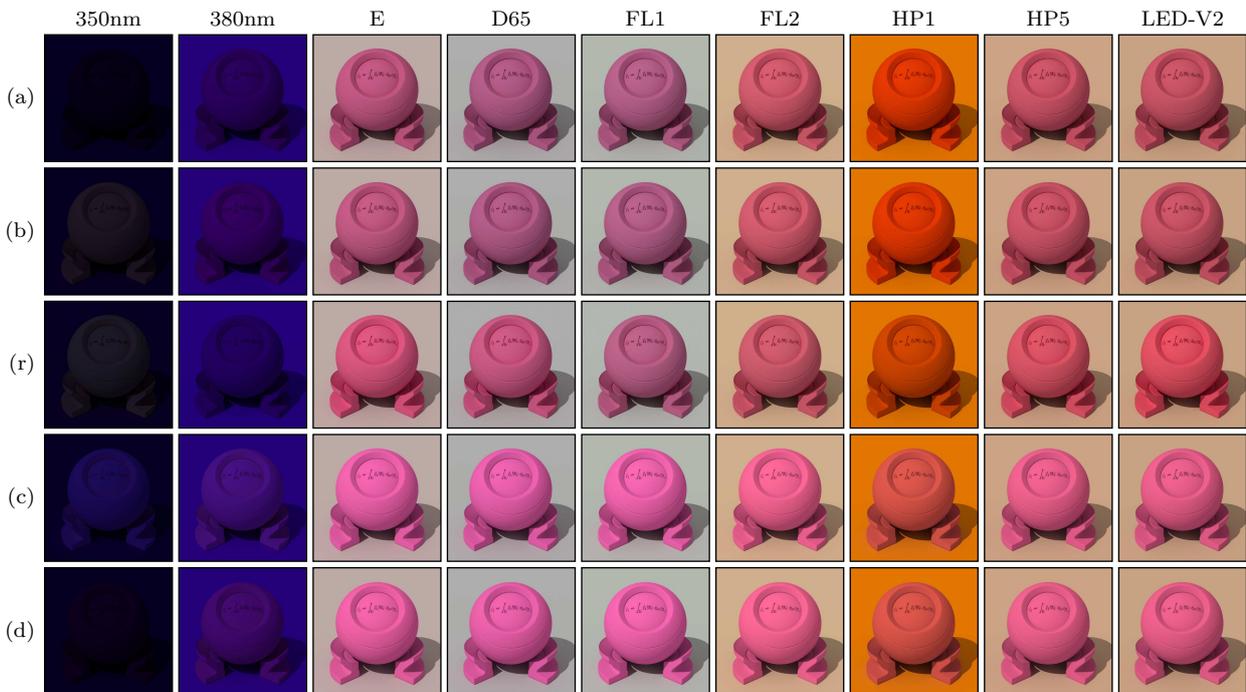
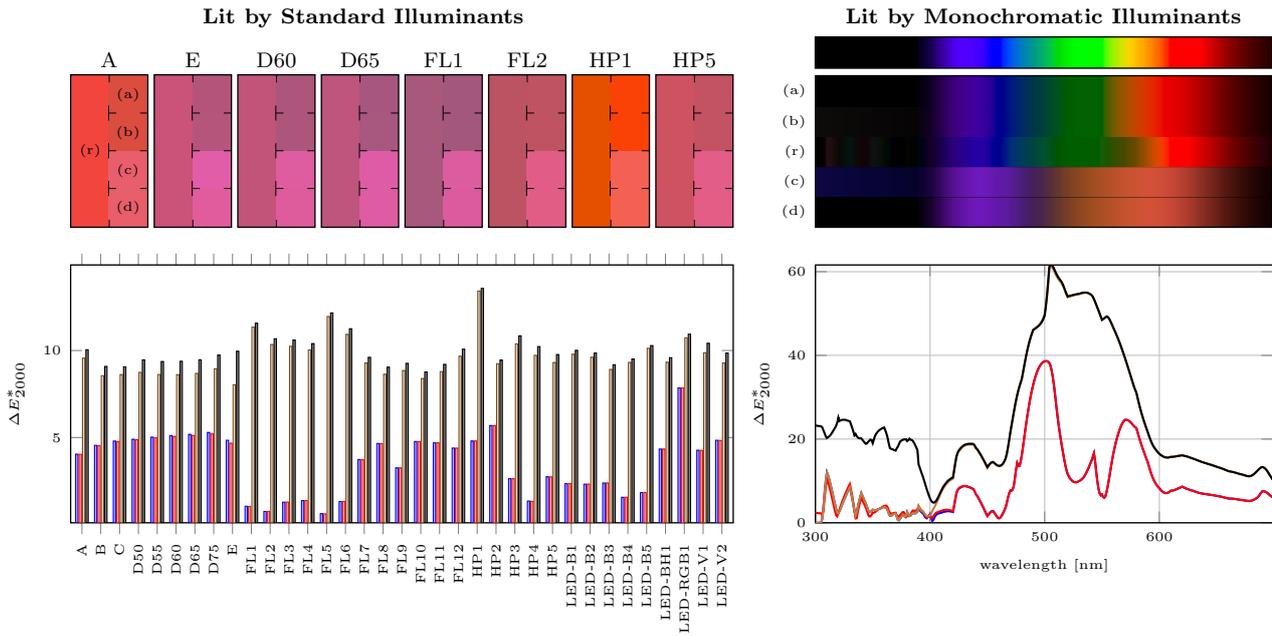
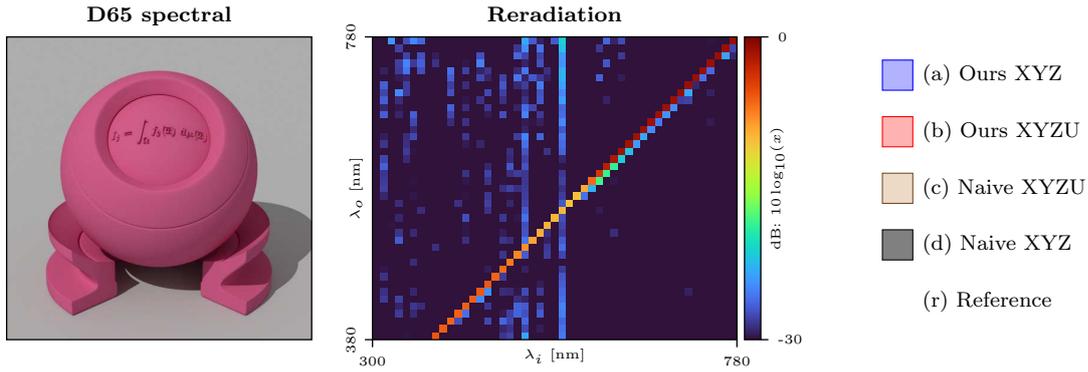
P3MP5Y



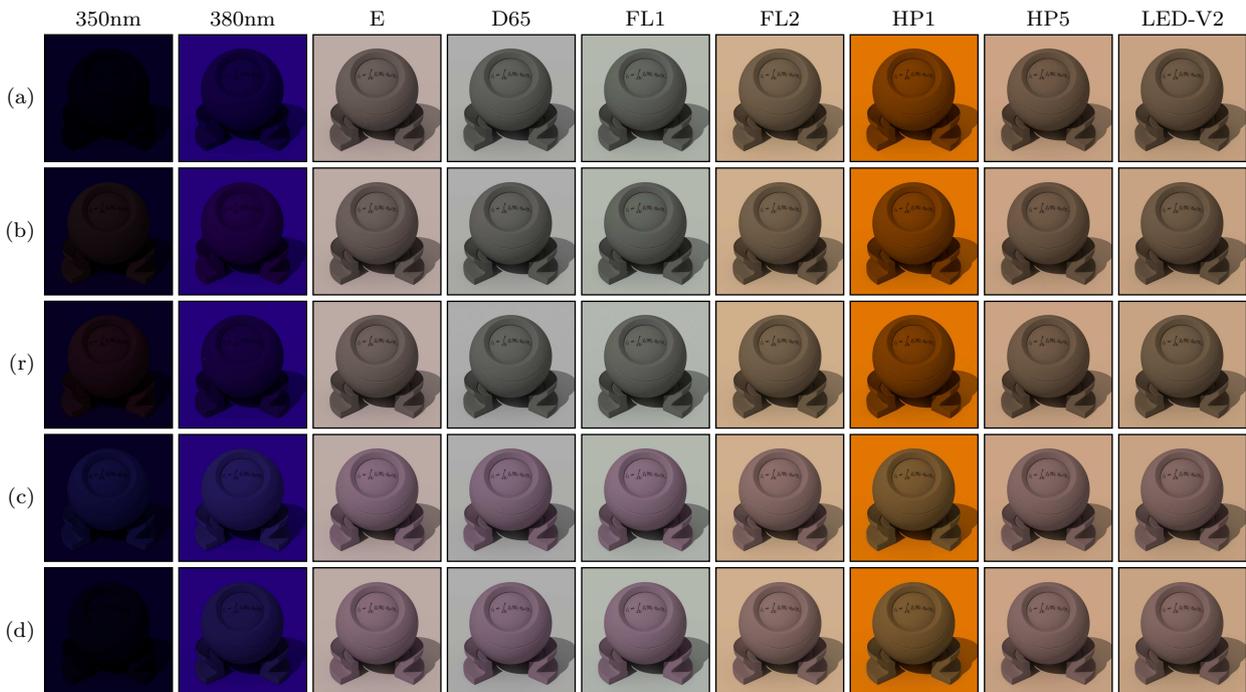
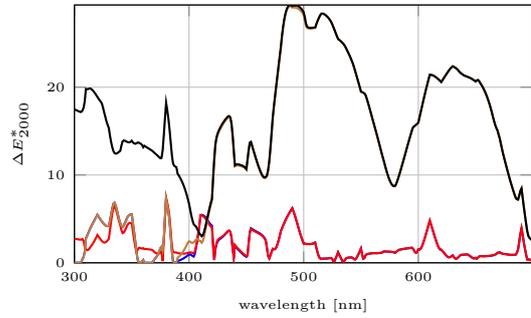
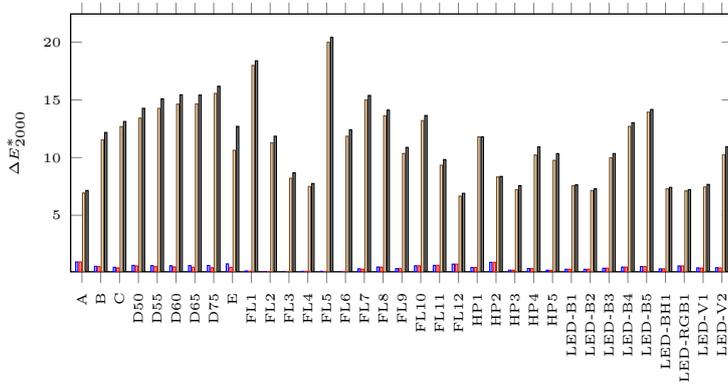
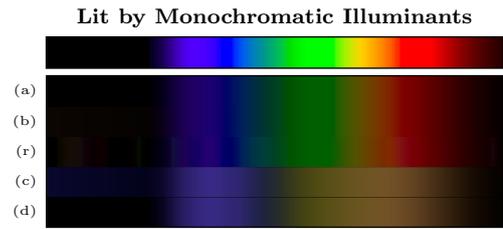
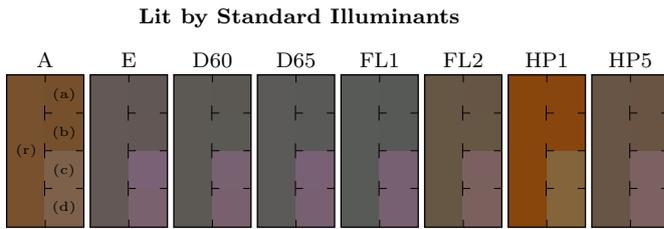
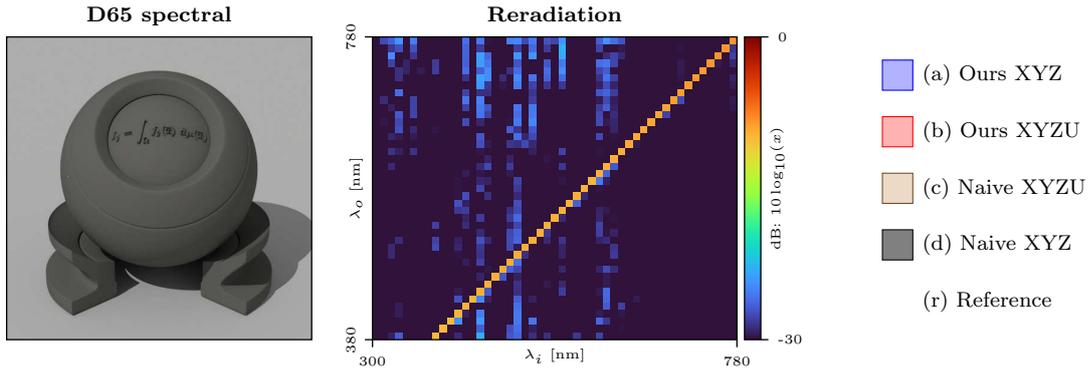
PLTOSF1C



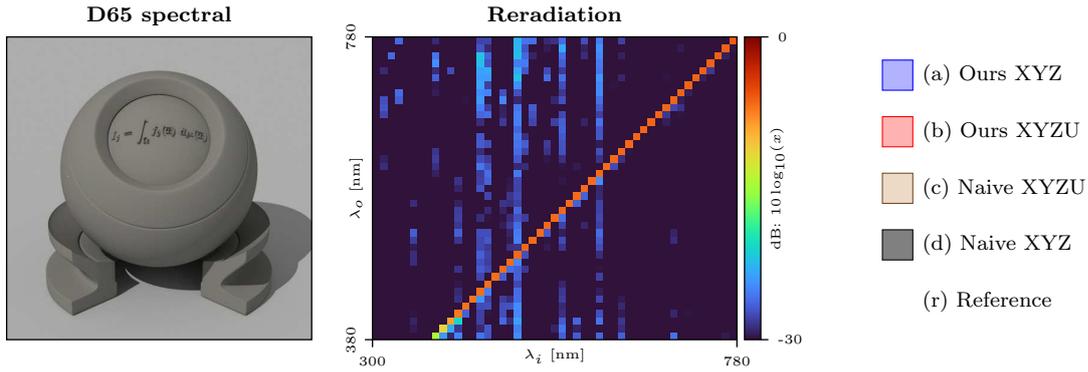
PLTOSF1M



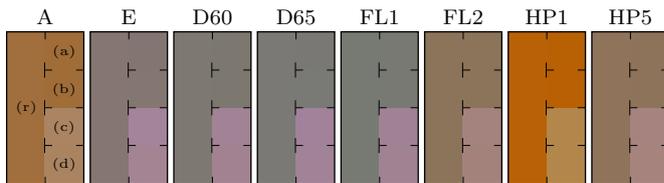
PLTOSF5K



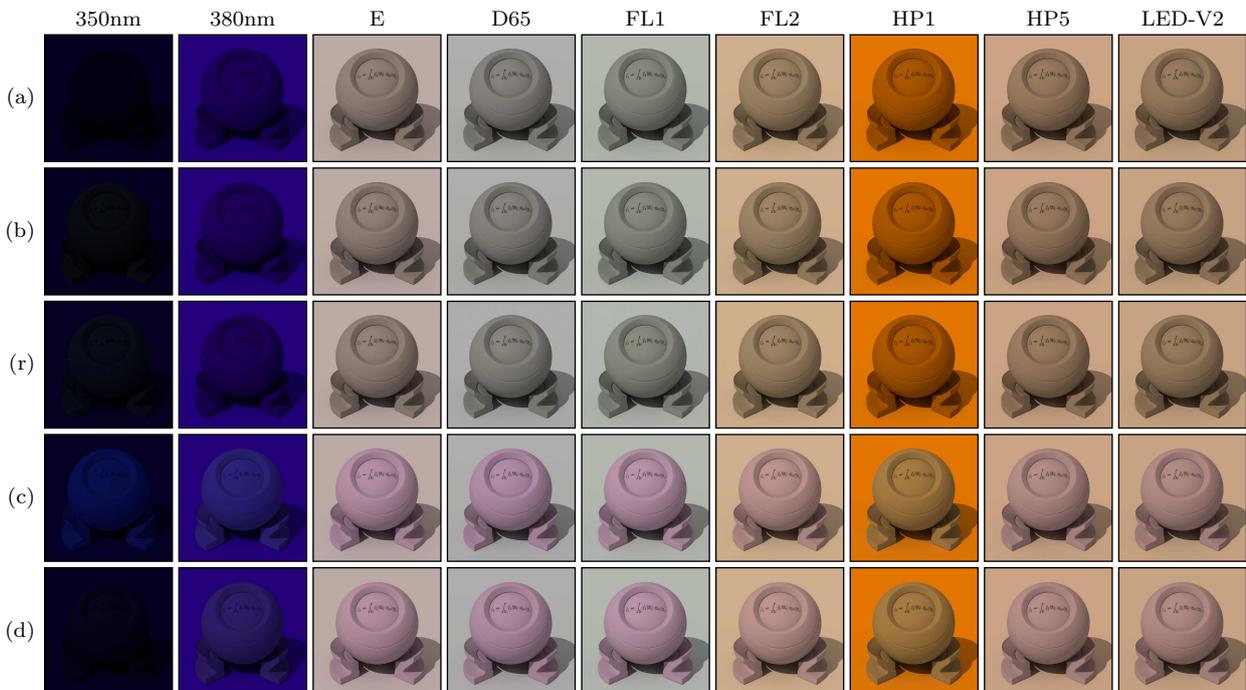
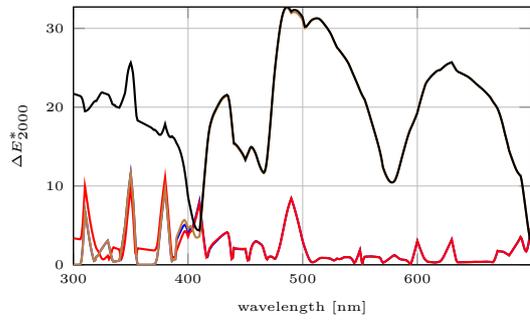
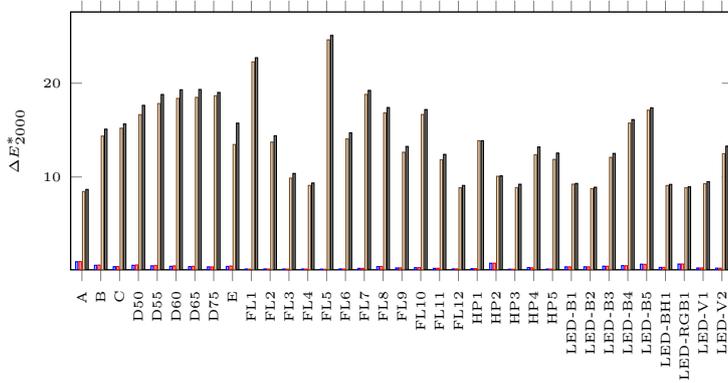
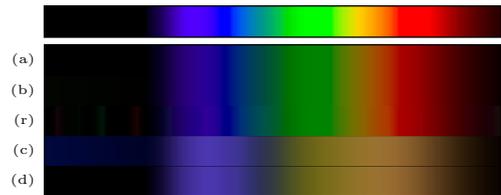
P3MP5K



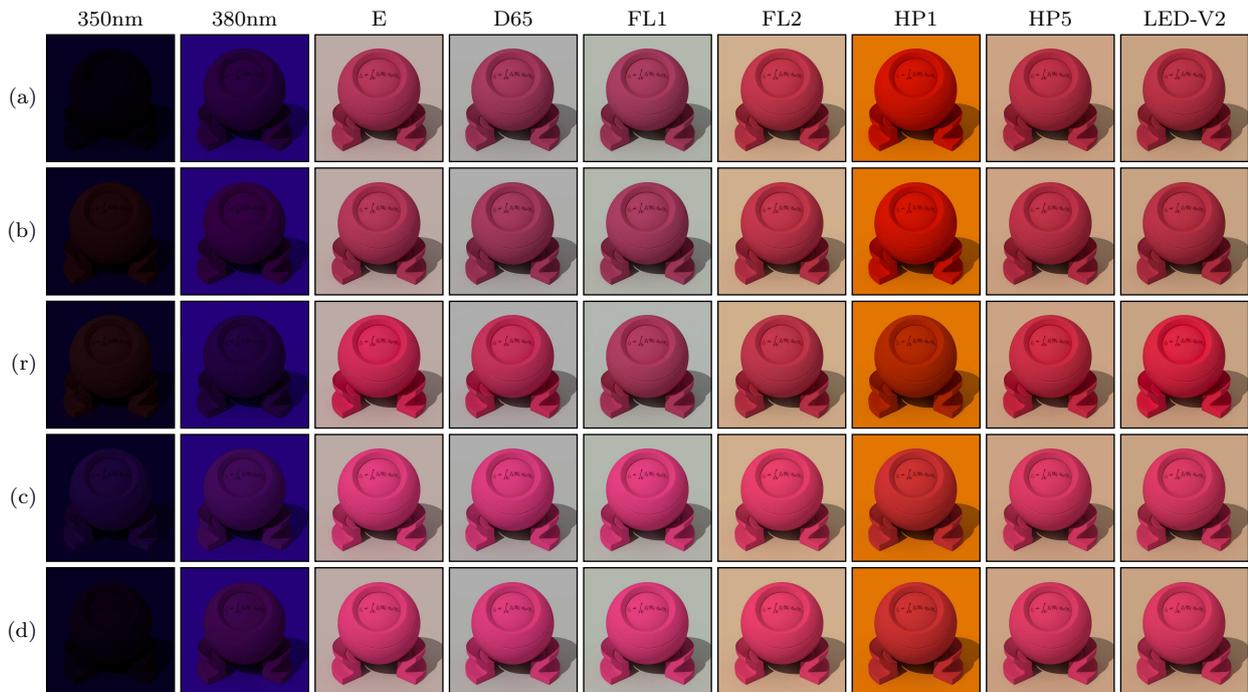
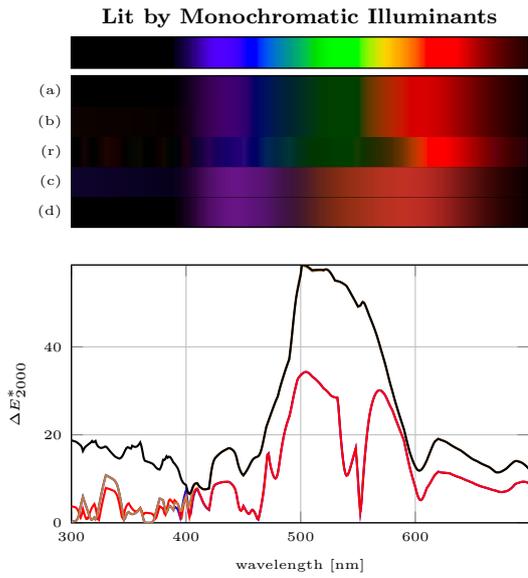
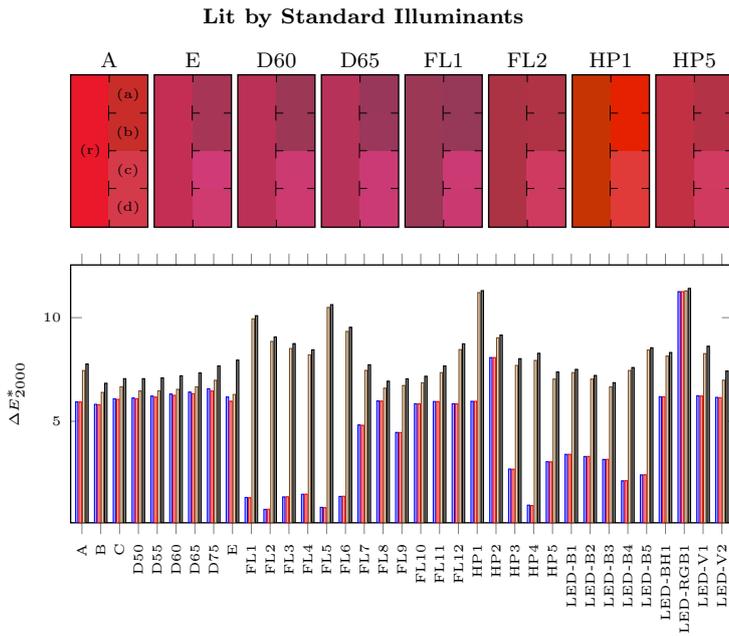
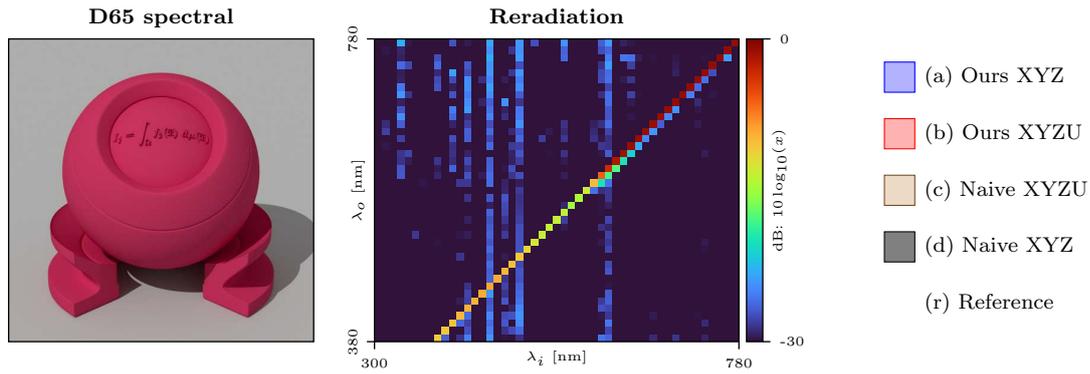
Lit by Standard Illuminants



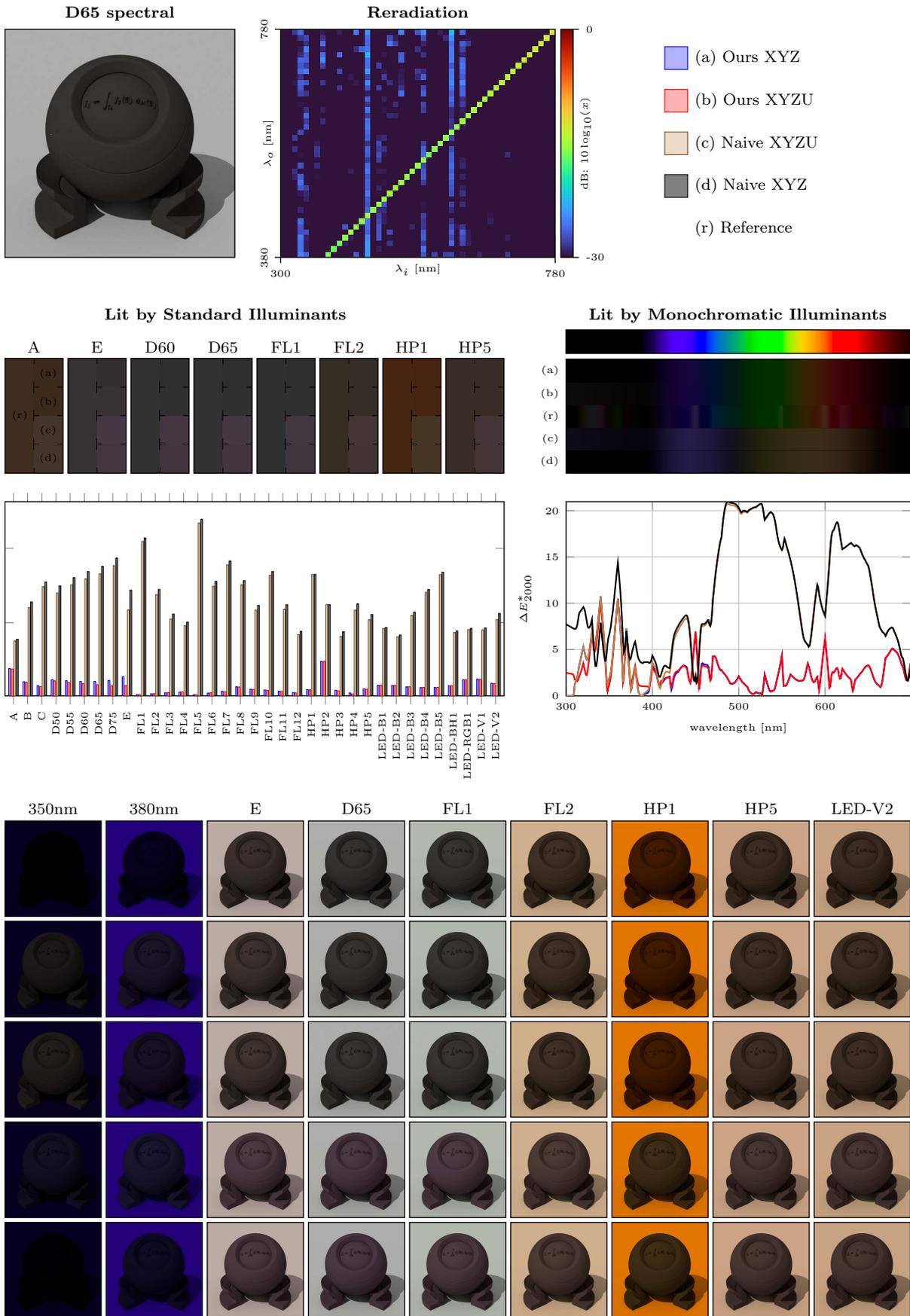
Lit by Monochromatic Illuminants



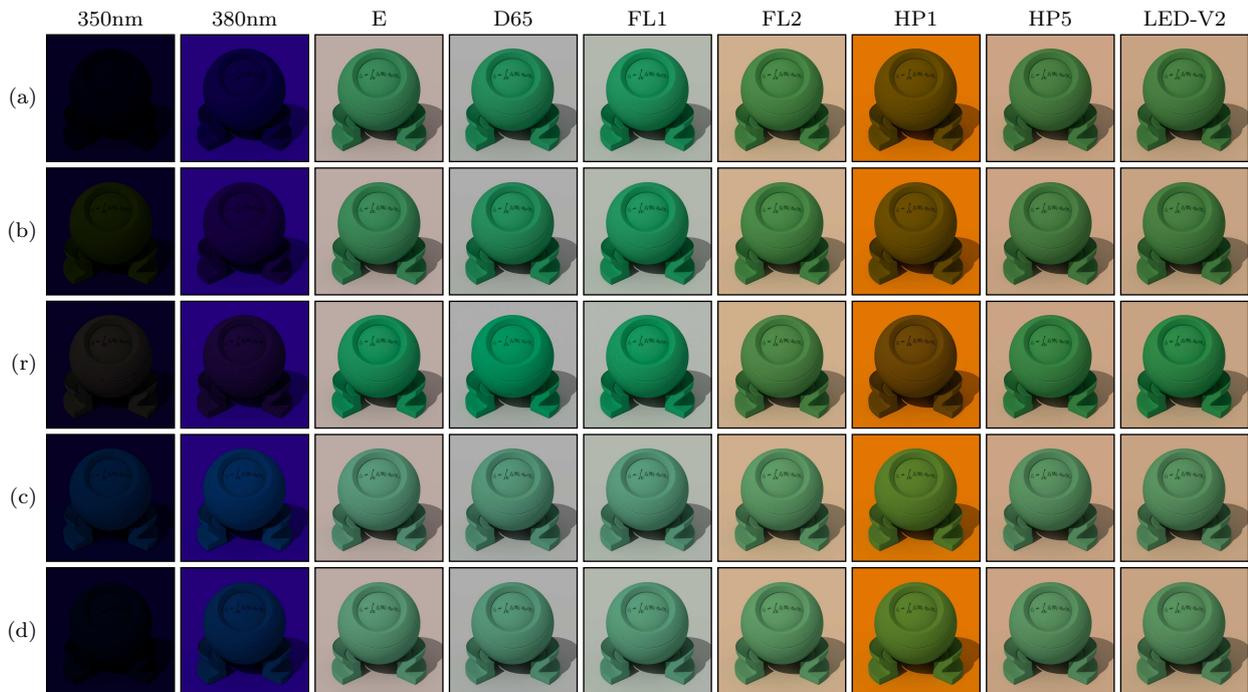
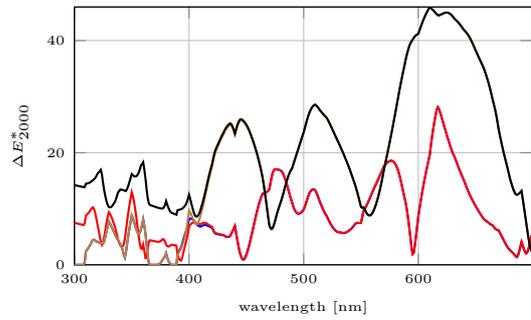
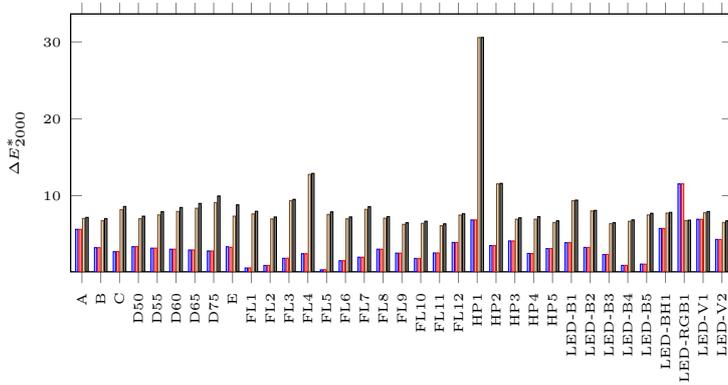
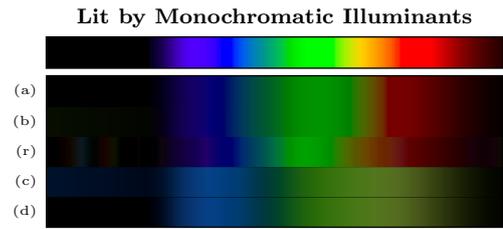
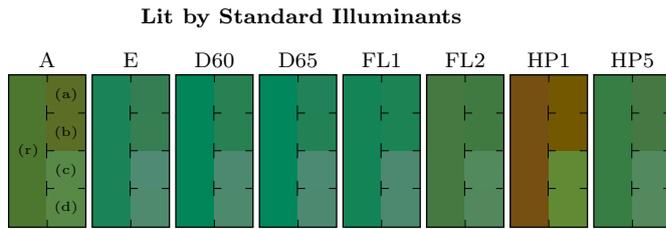
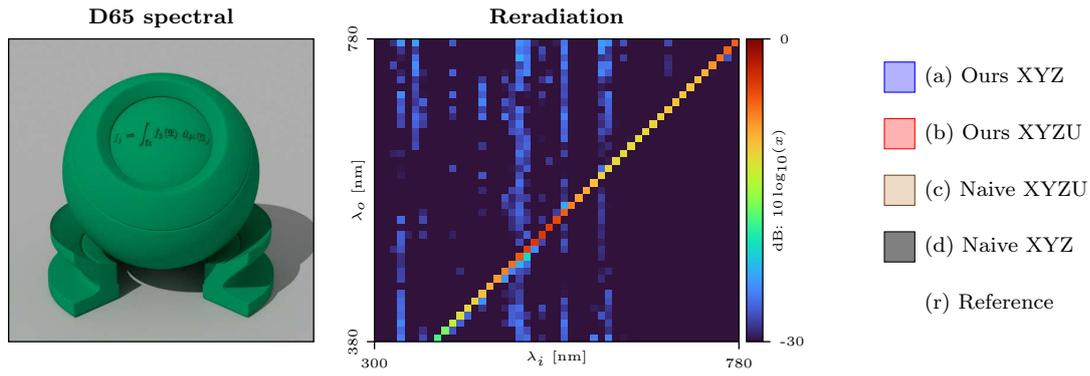
PHP8RV1M



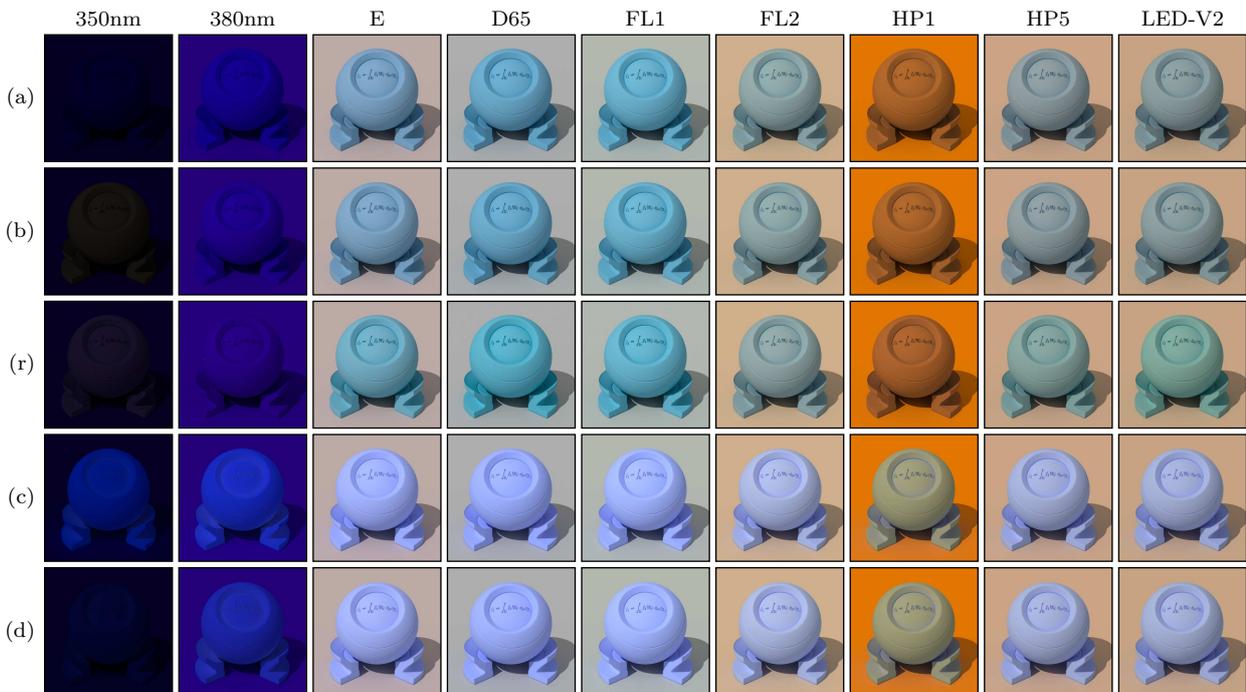
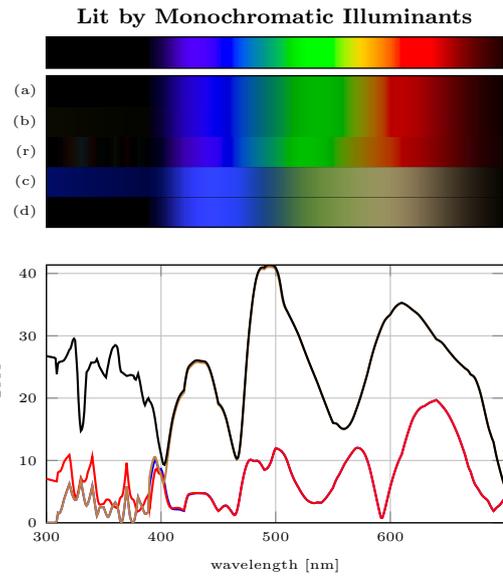
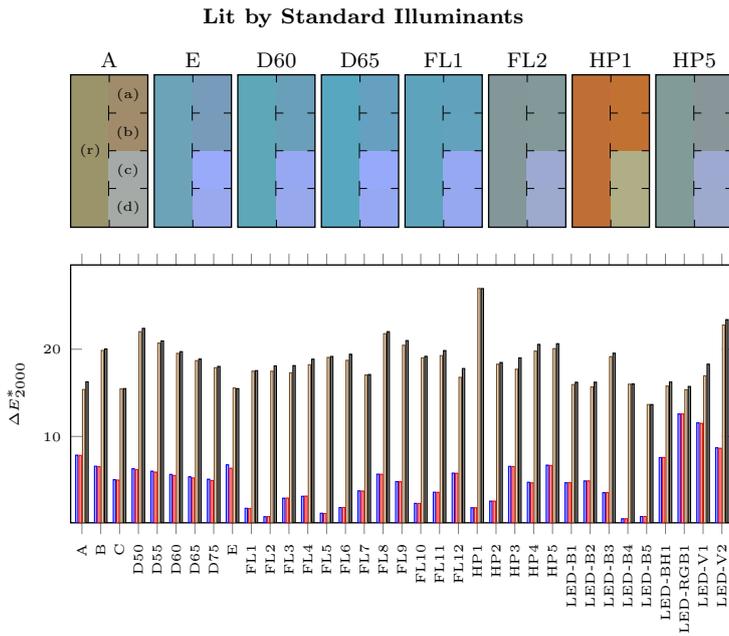
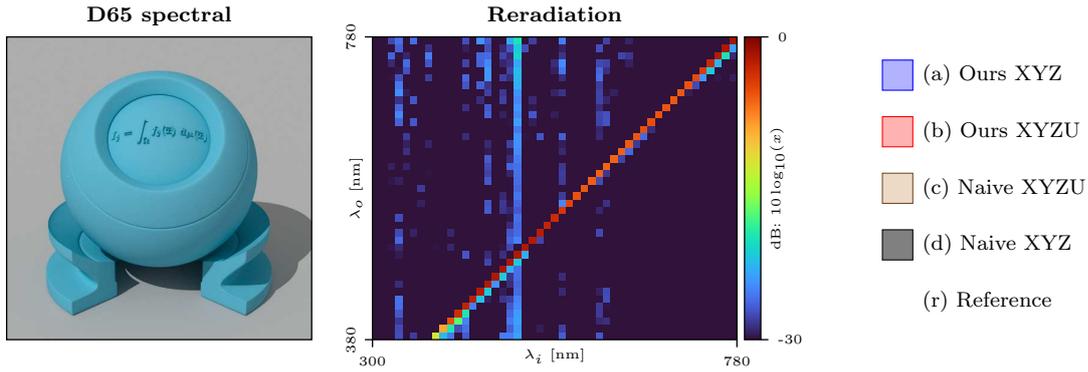
PLIWF1K



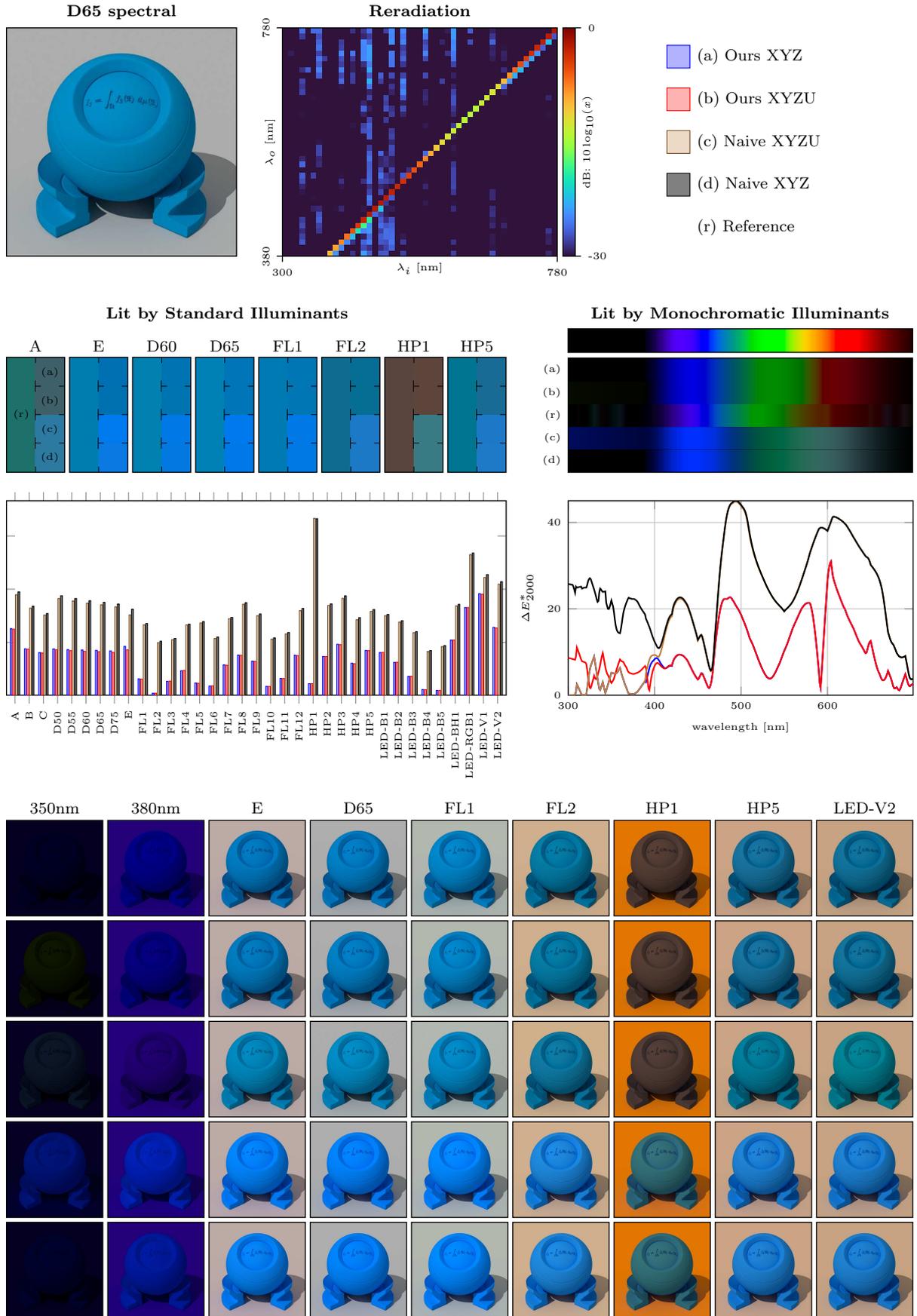
PLAGREE



P3MP5C

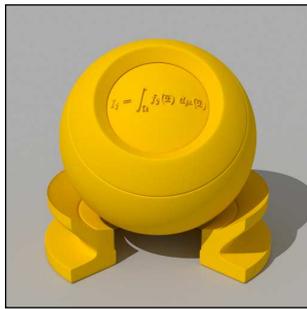


PHP8RV1C

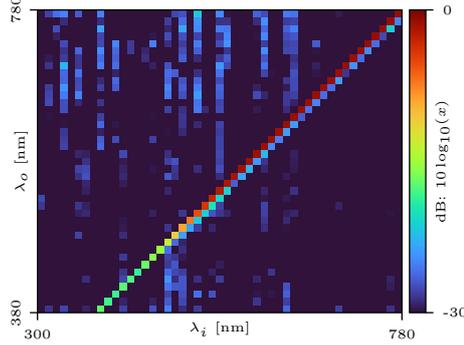


PEP1Y

D65 spectral

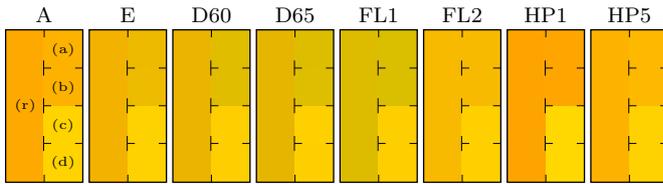


Reradiation

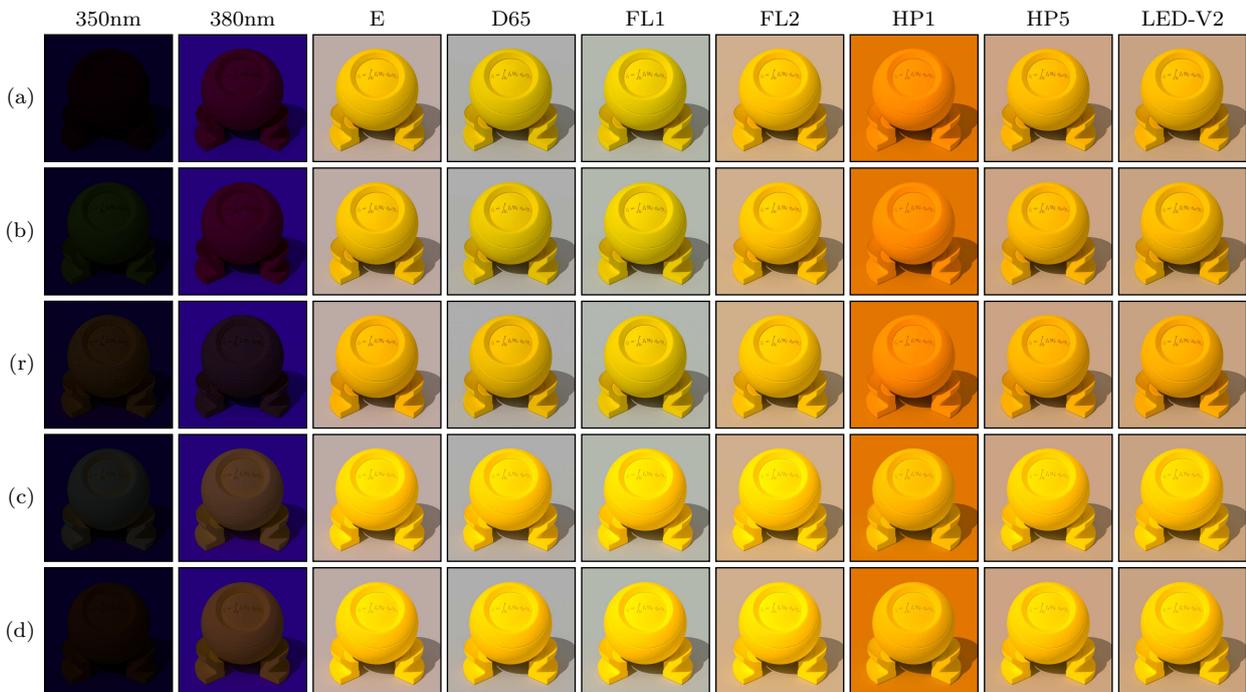
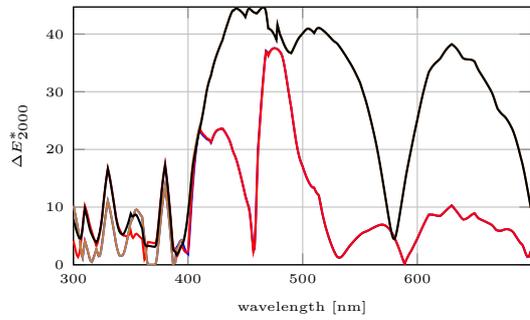
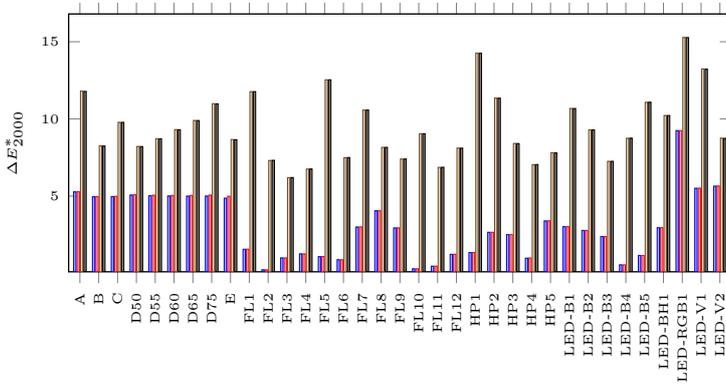
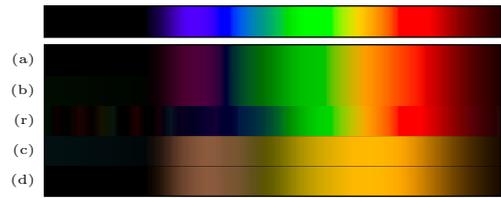


- (a) Ours XYZ
- (b) Ours XYZU
- (c) Naive XYZU
- (d) Naive XYZ
- (r) Reference

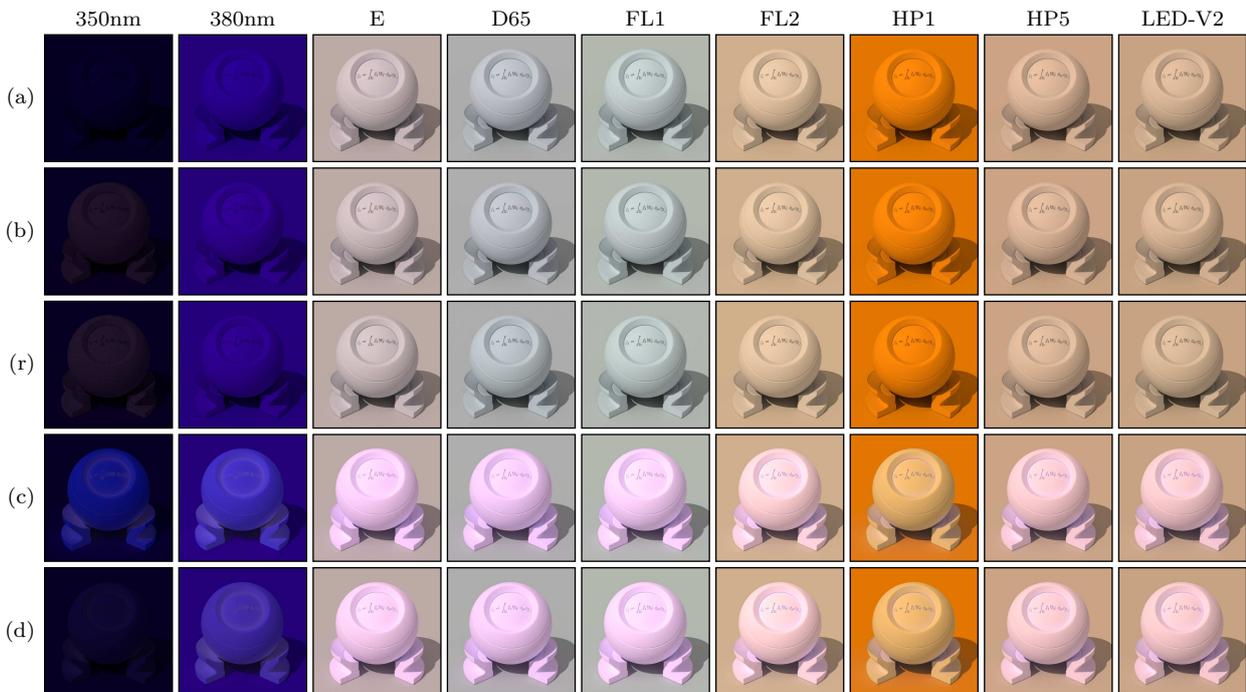
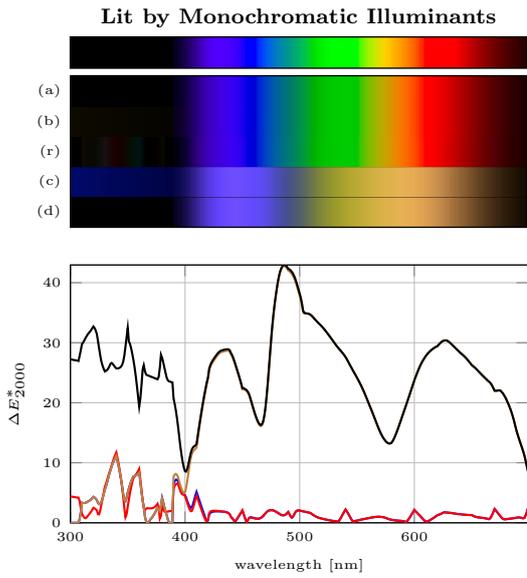
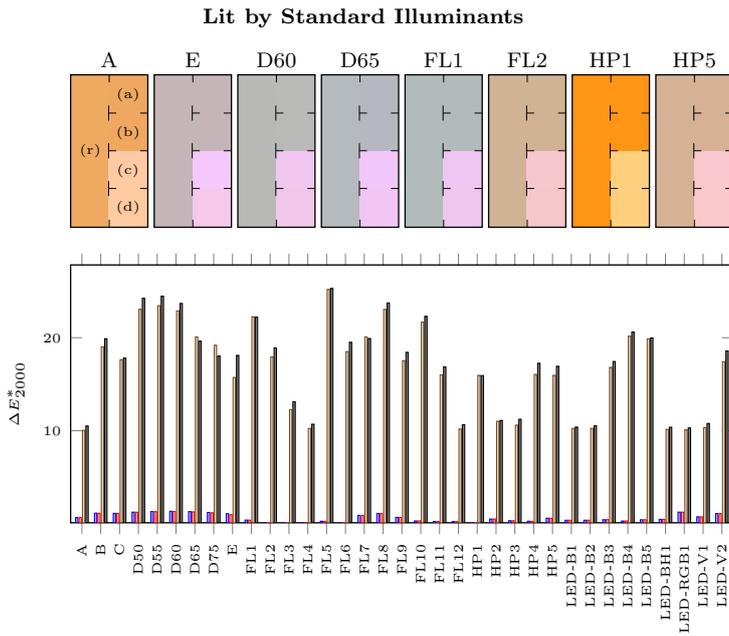
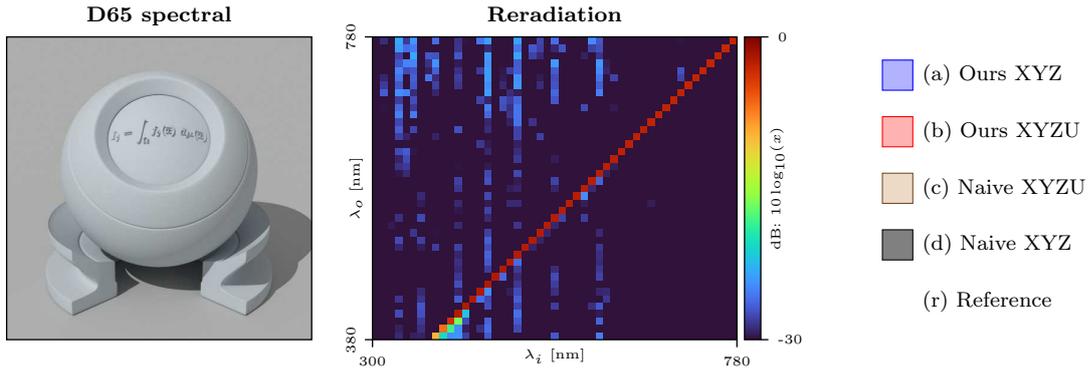
Lit by Standard Illuminants



Lit by Monochromatic Illuminants

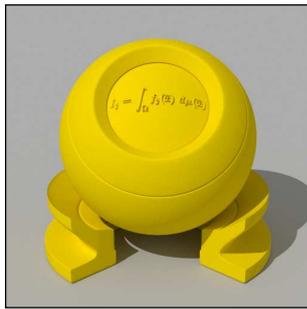


PLAWH1

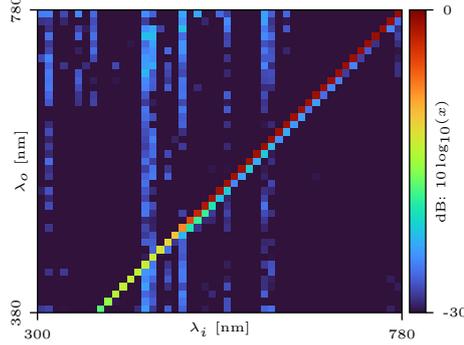


P3MP1YB

D65 spectral

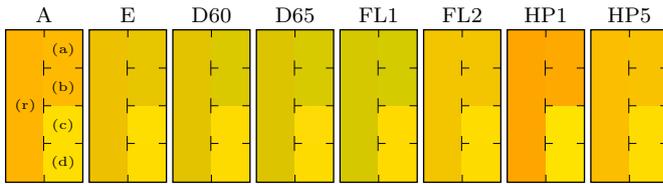


Reradiation

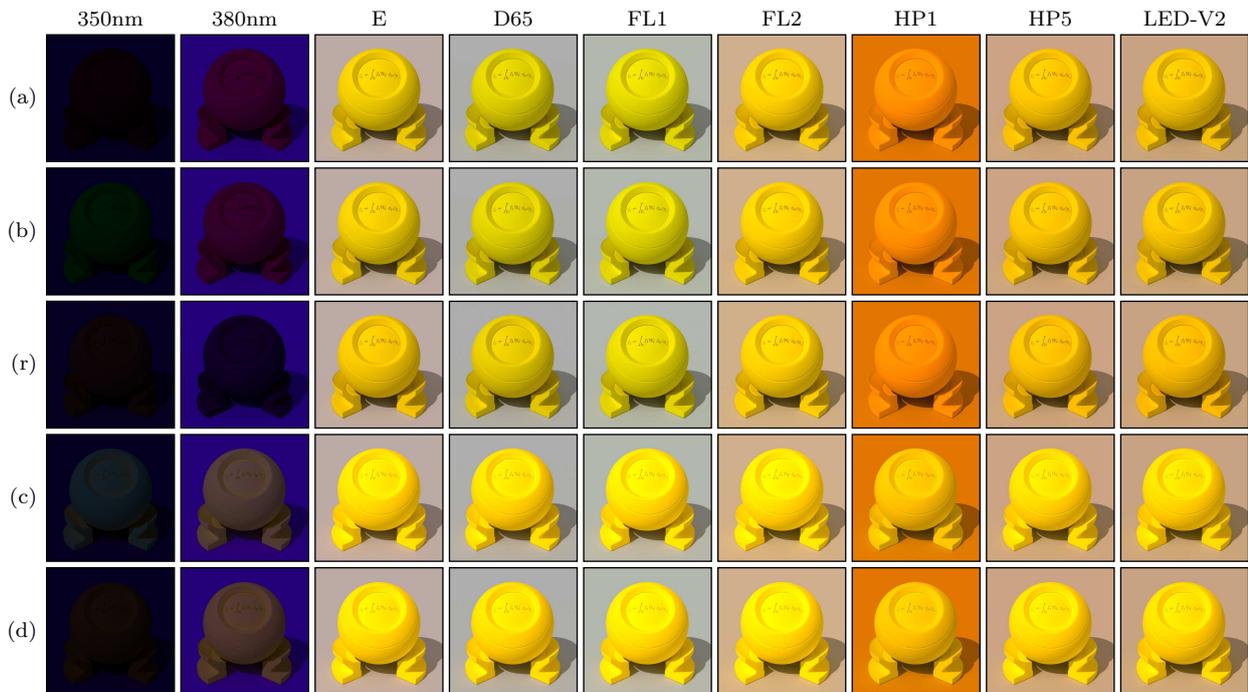
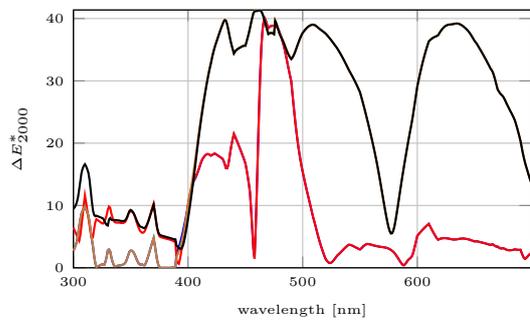
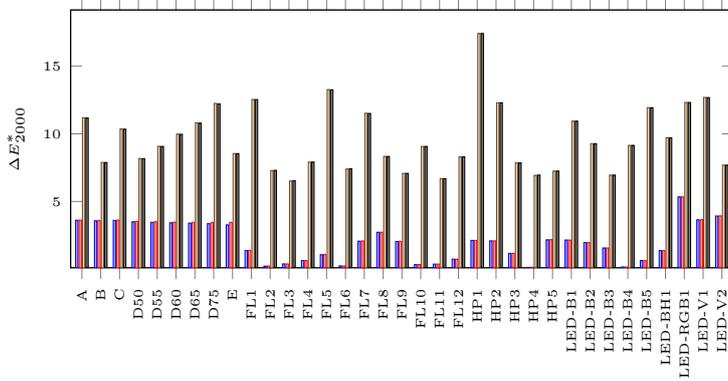
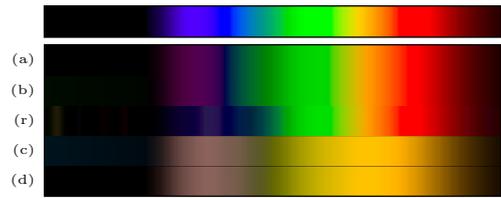


- (a) Ours XYZ
- (b) Ours XYZU
- (c) Naive XYZU
- (d) Naive XYZ
- (r) Reference

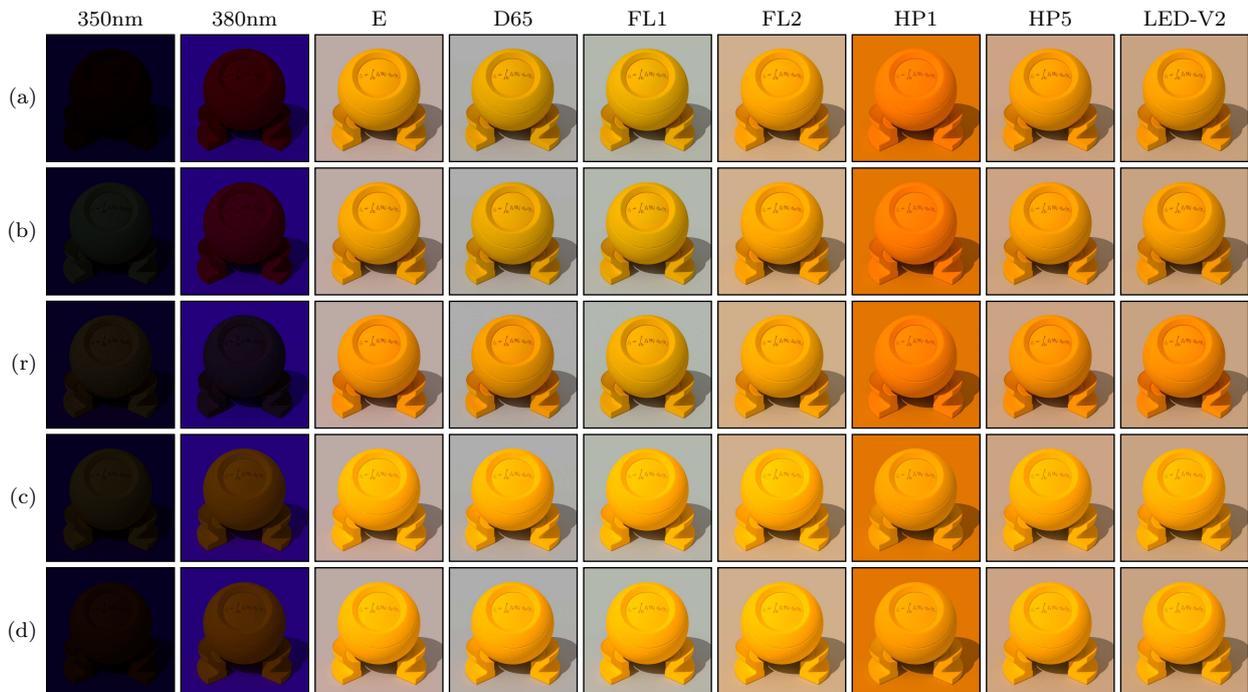
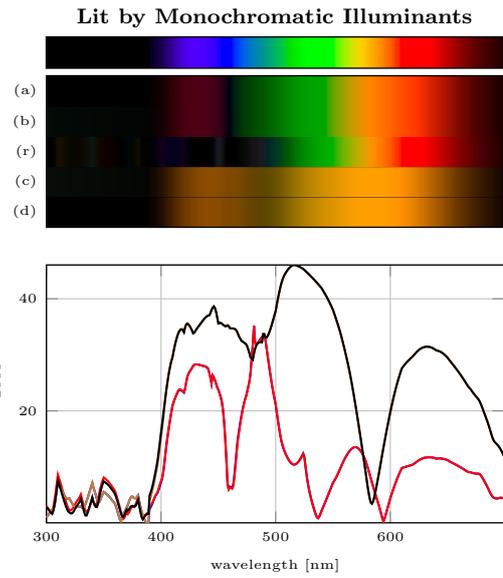
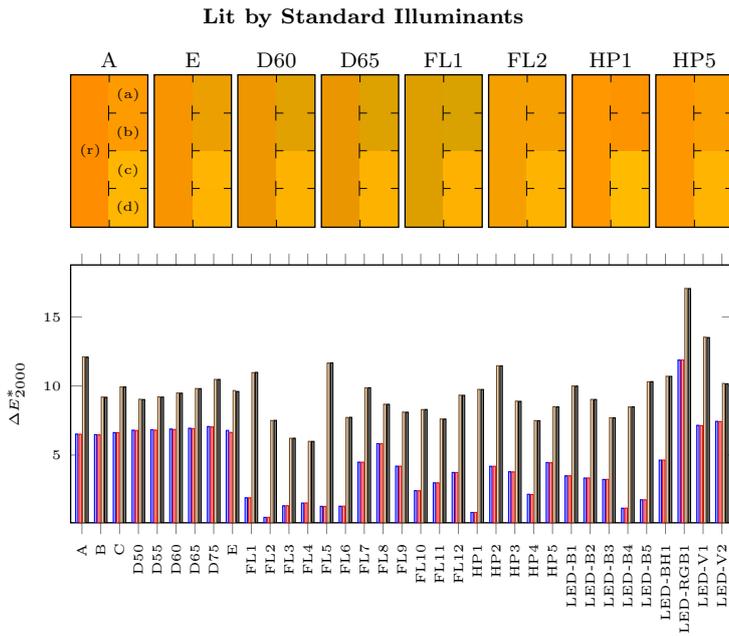
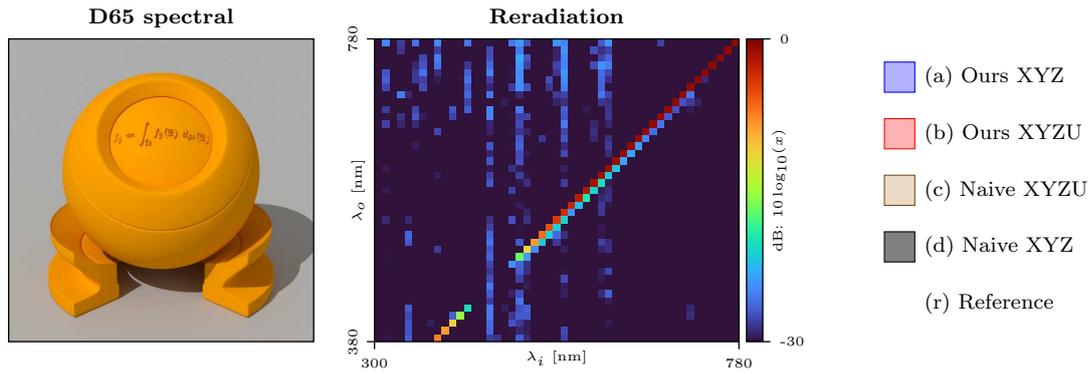
Lit by Standard Illuminants



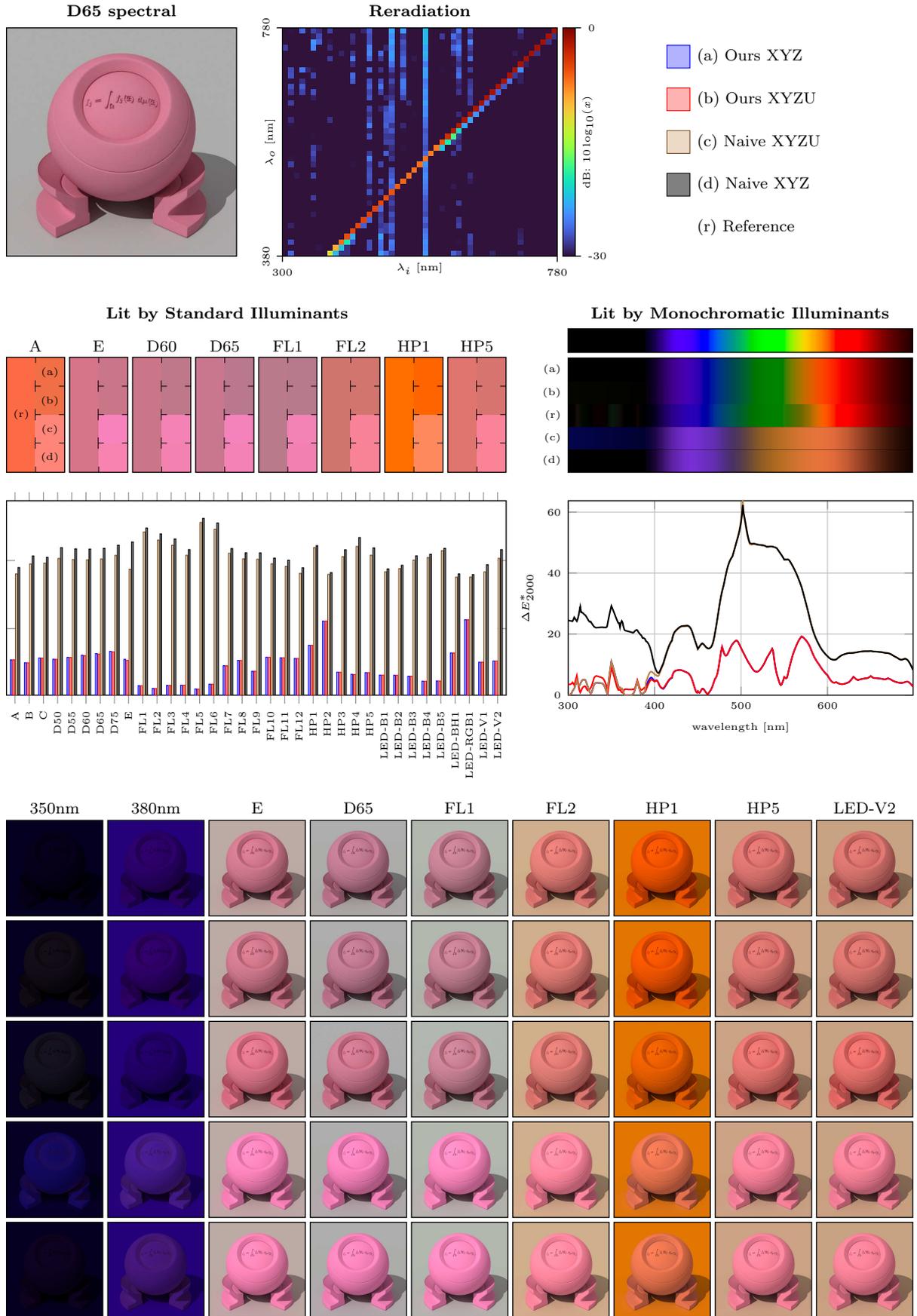
Lit by Monochromatic Illuminants



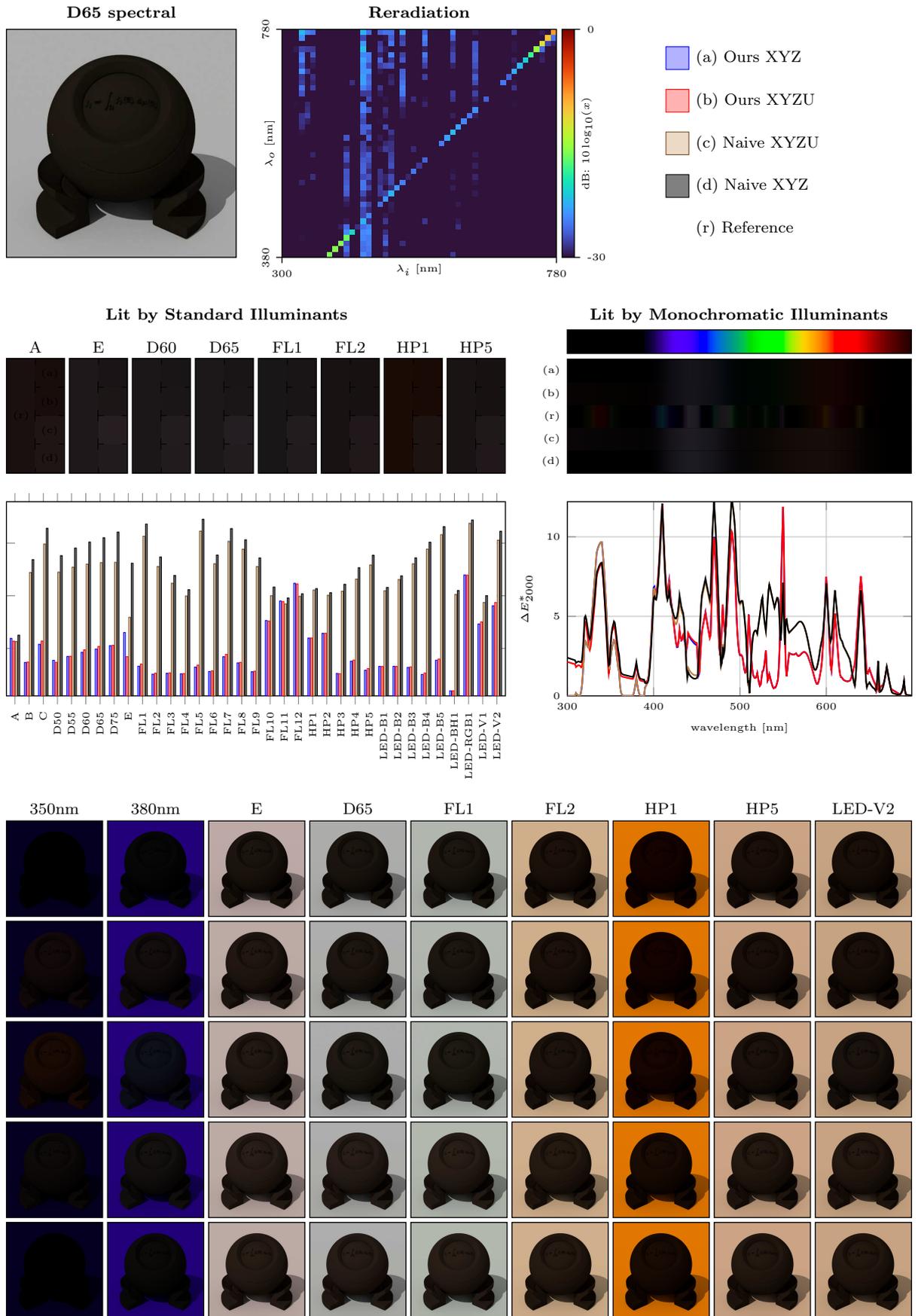
PKODXL1Y



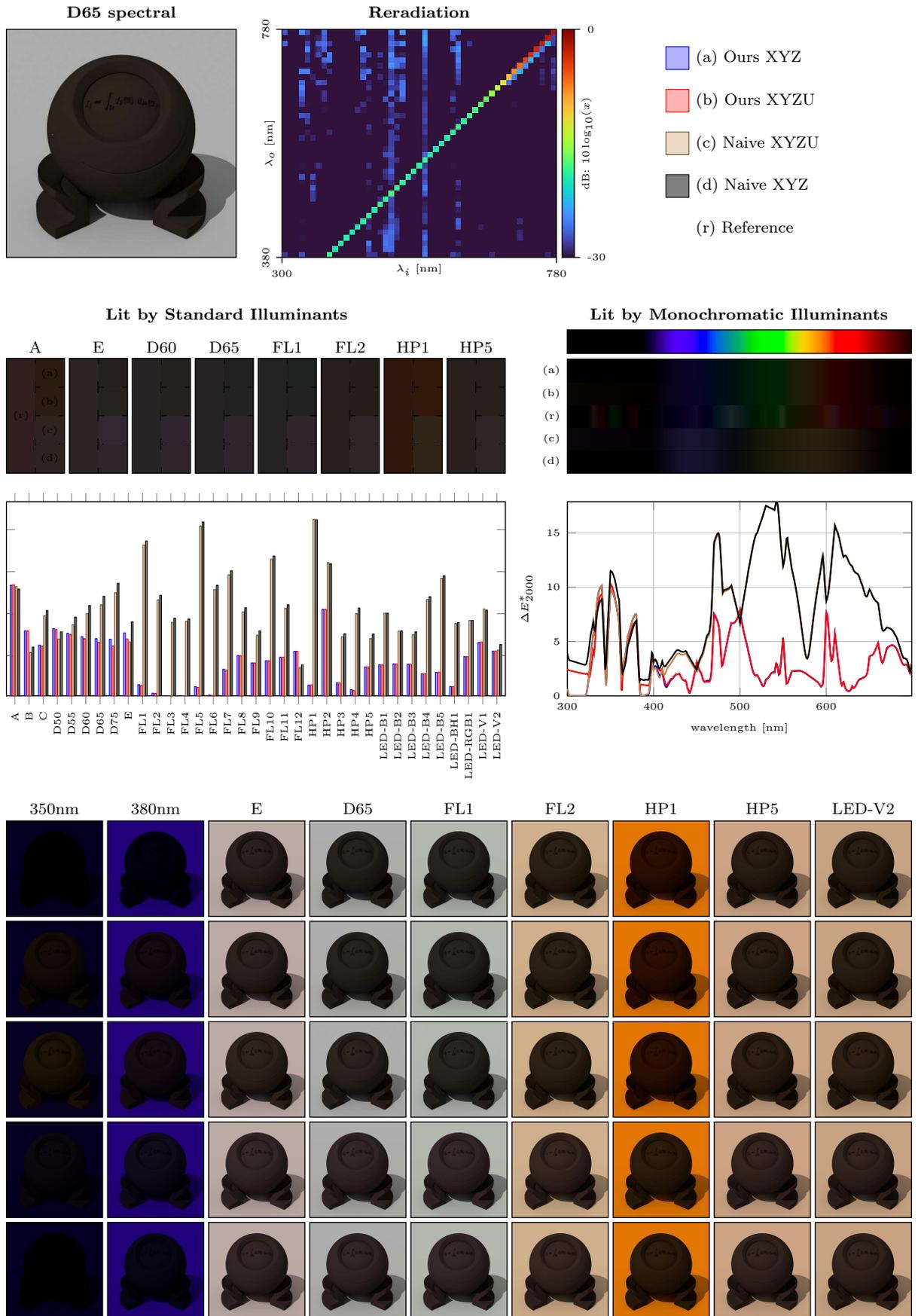
P3MP5M



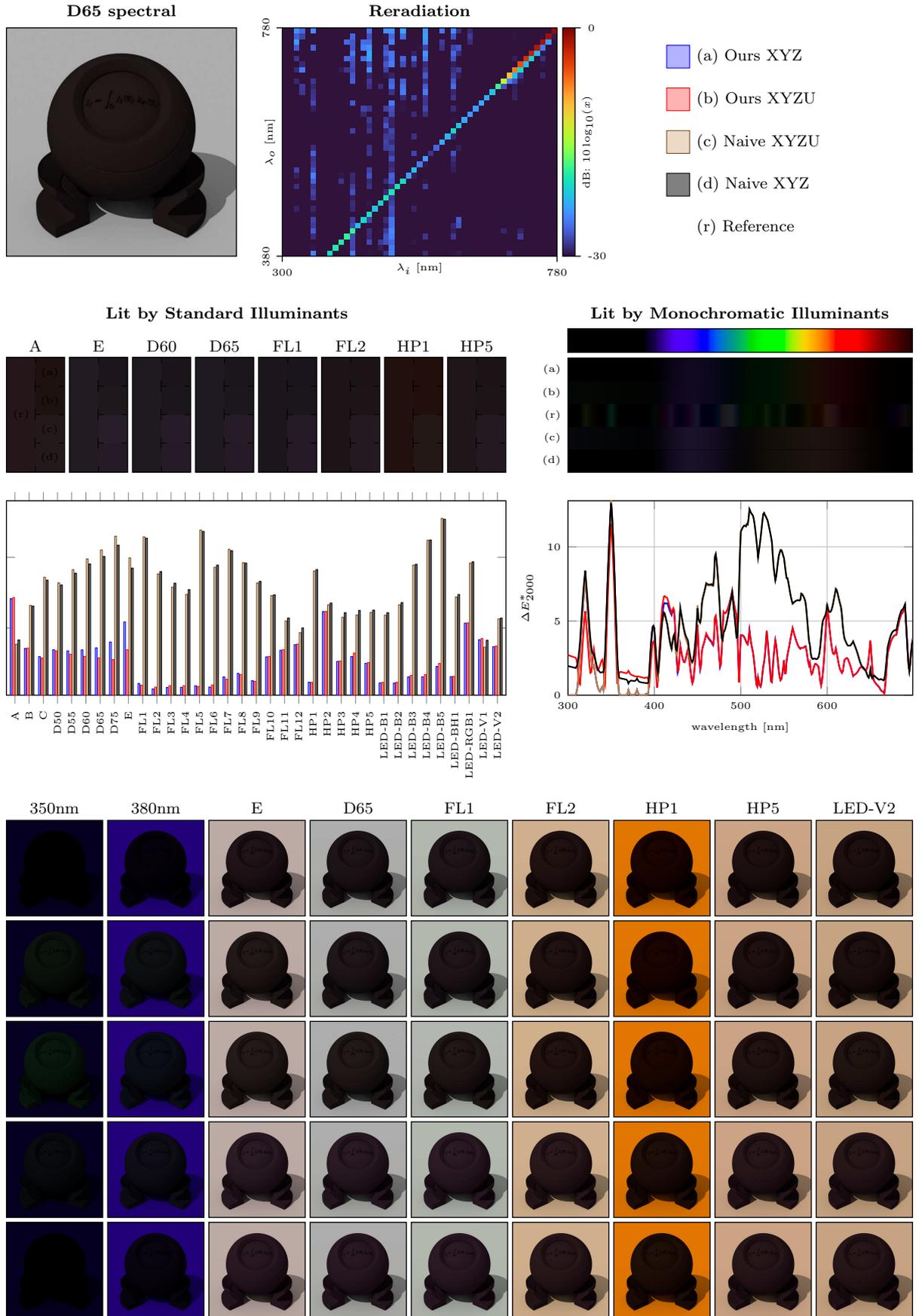
PKODXL1K



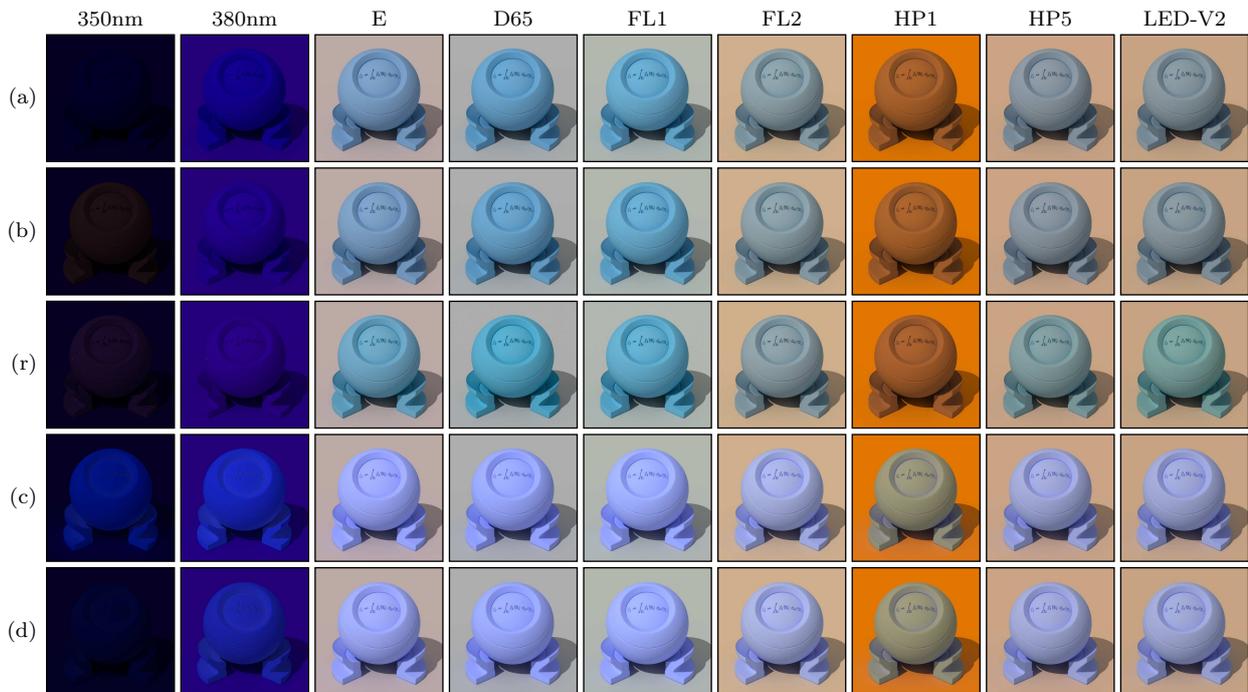
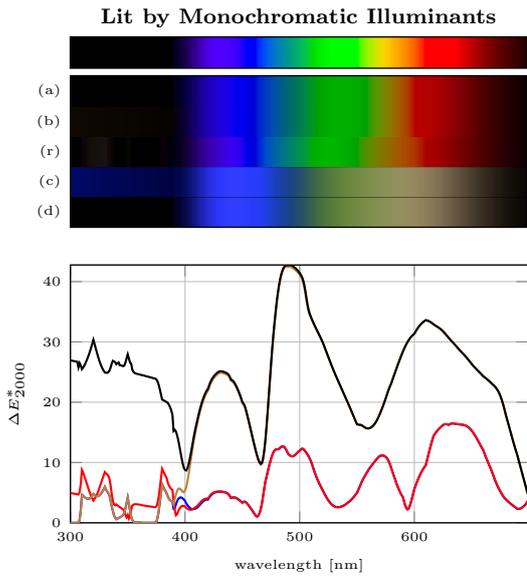
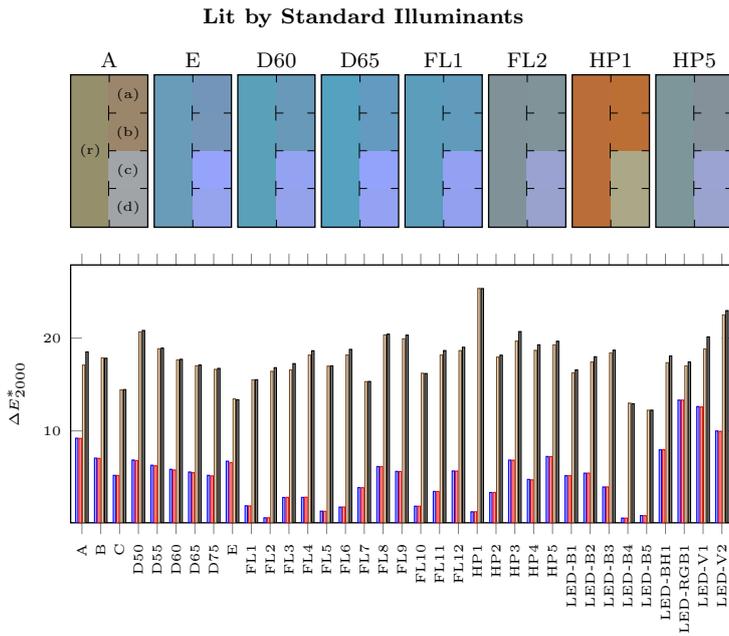
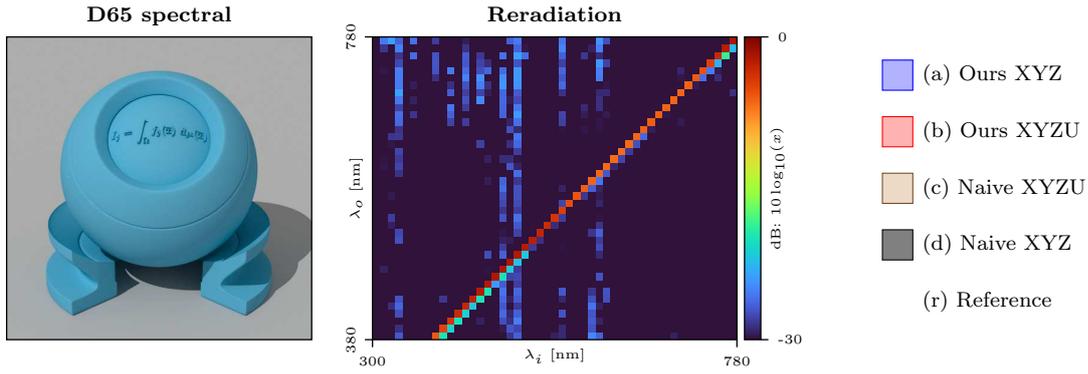
PEP1K



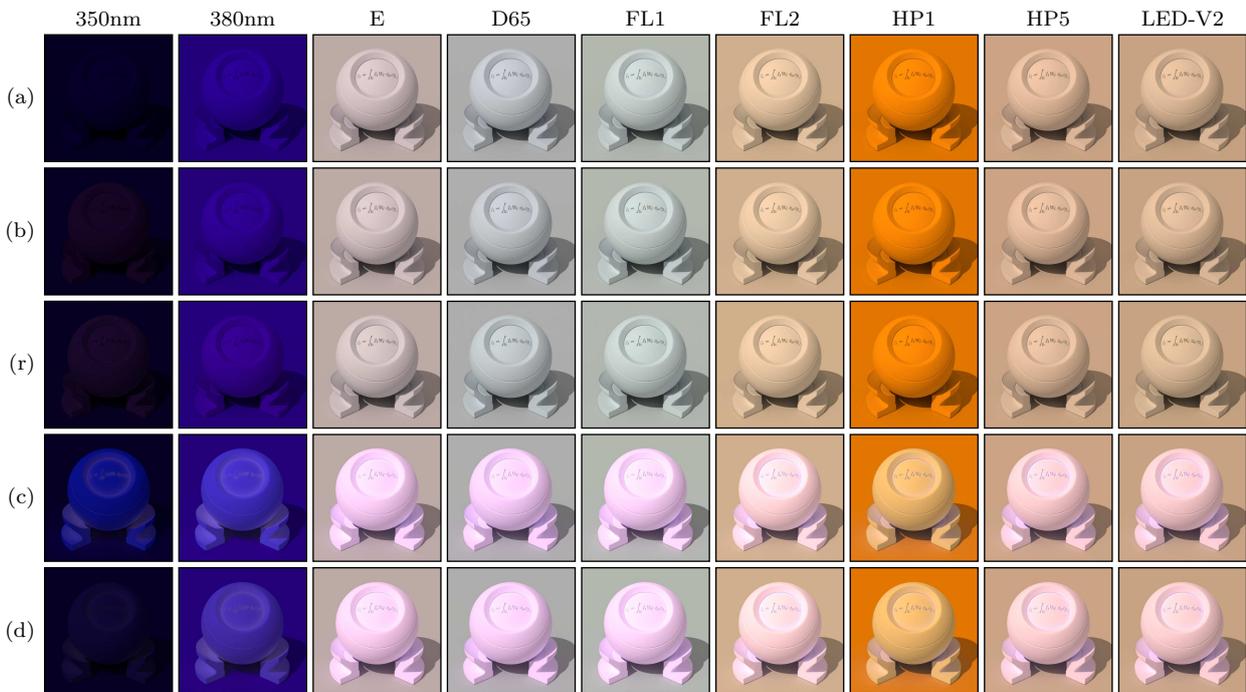
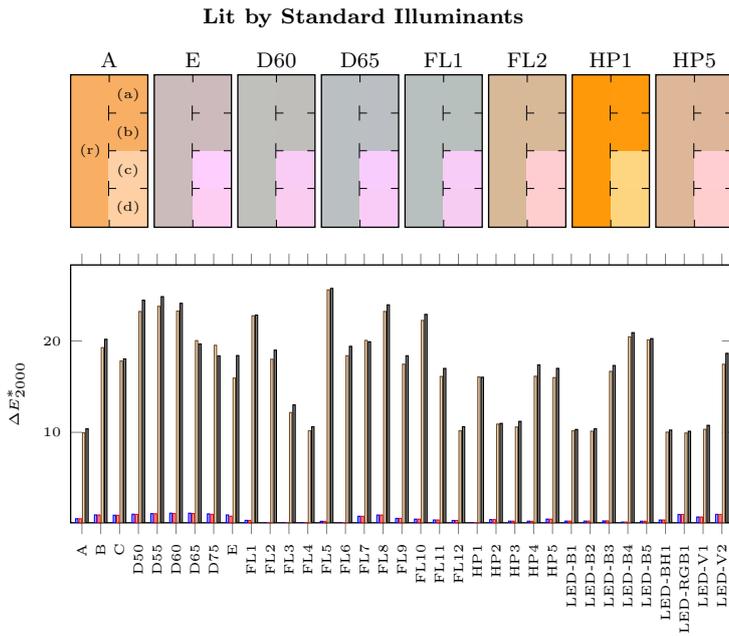
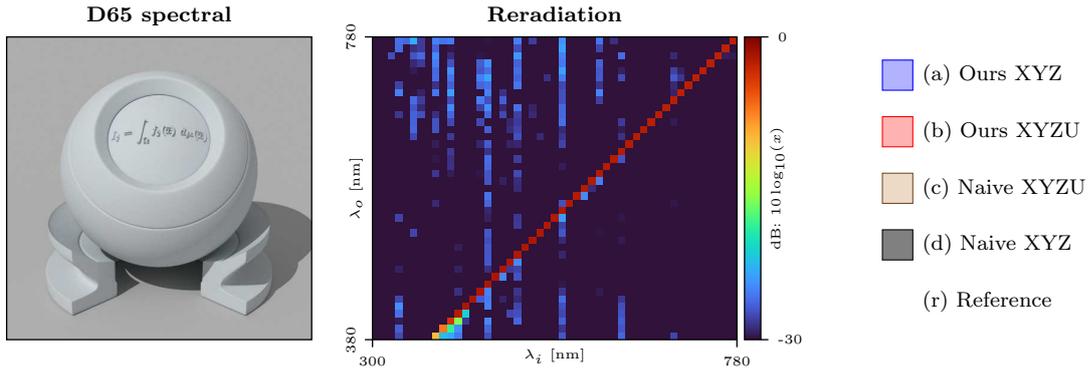
PFUJI1K



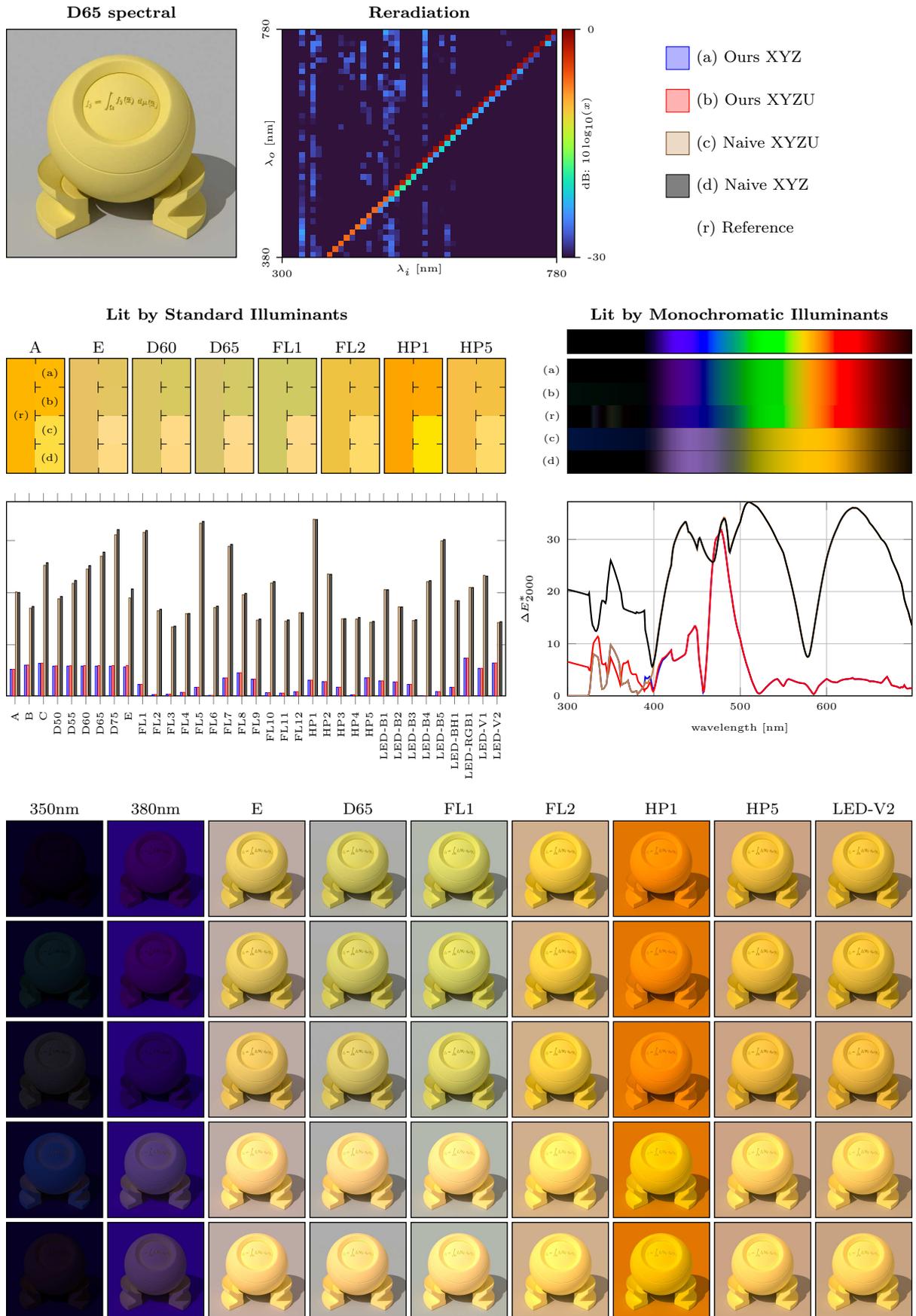
PLTOSF5C



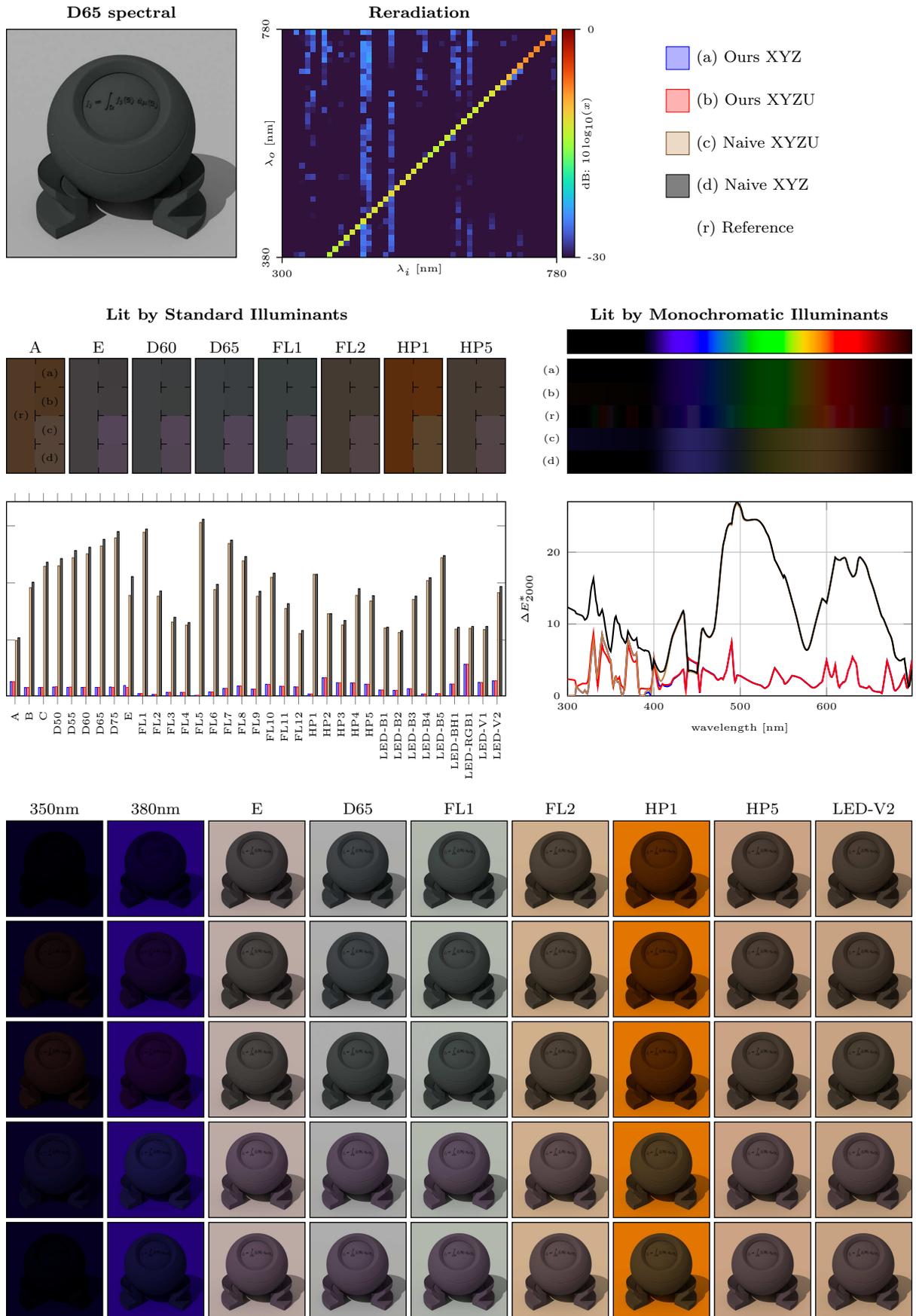
PLAWH2



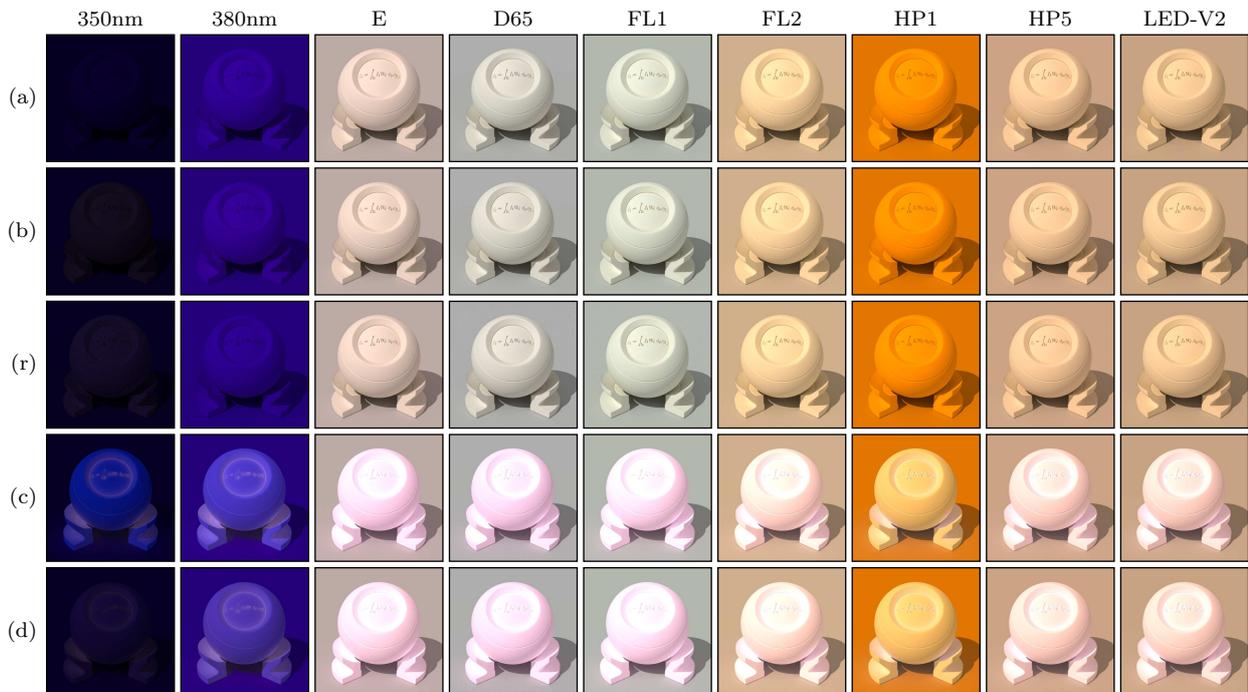
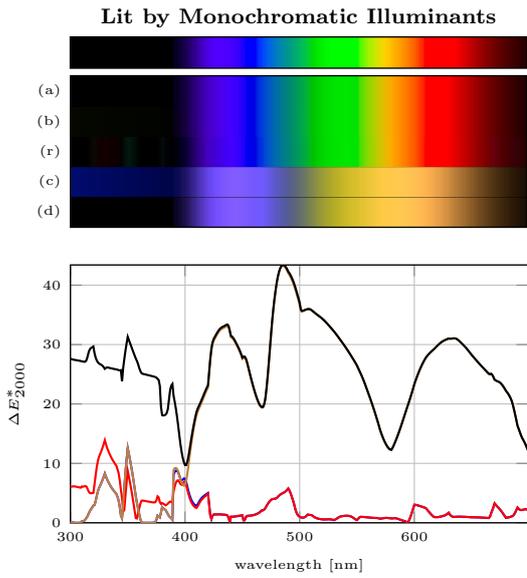
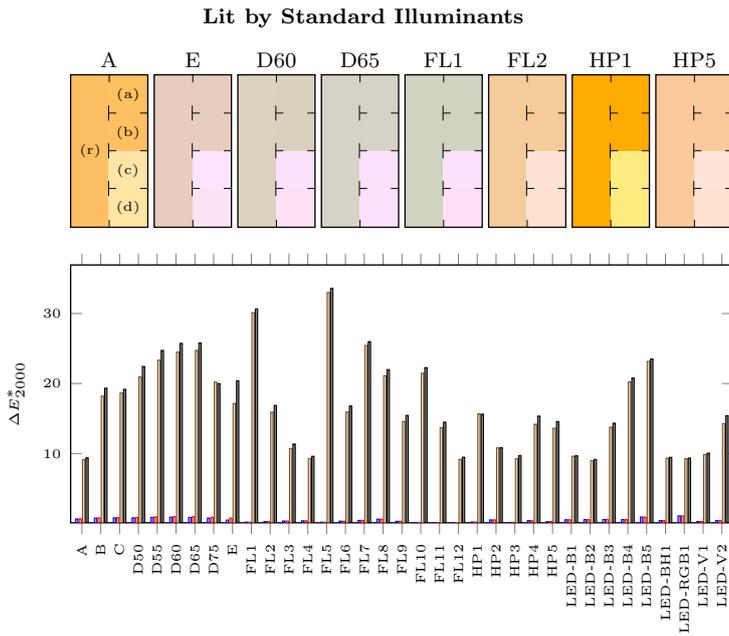
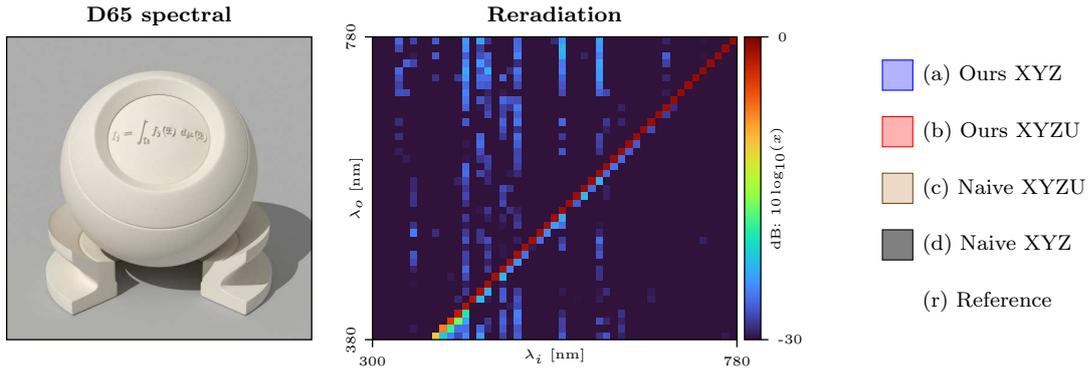
PLTOSF5Y



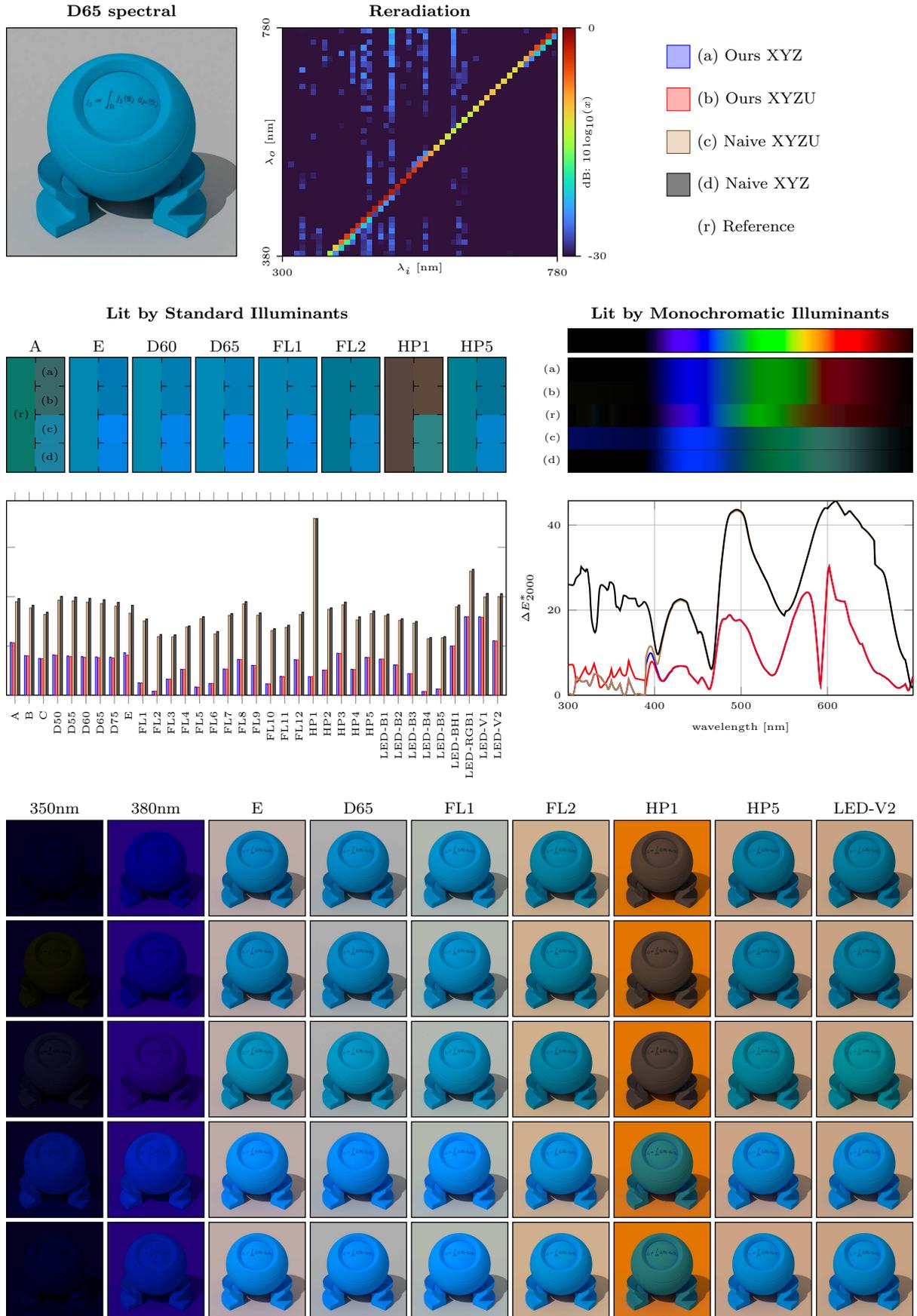
PHP8RV1K



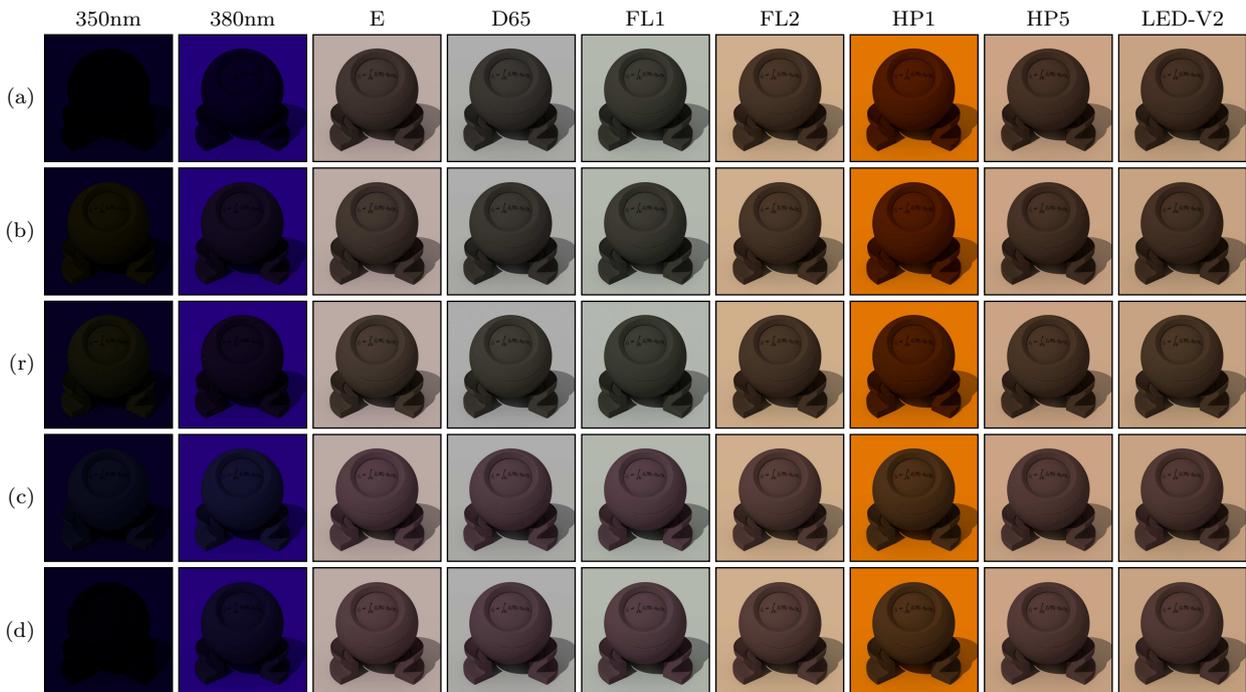
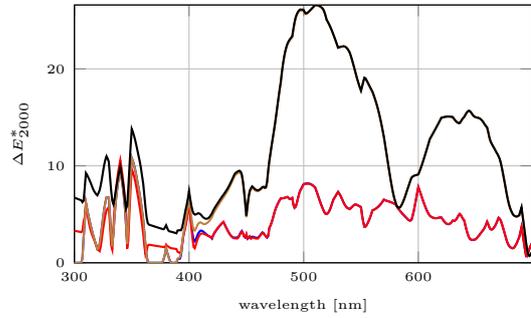
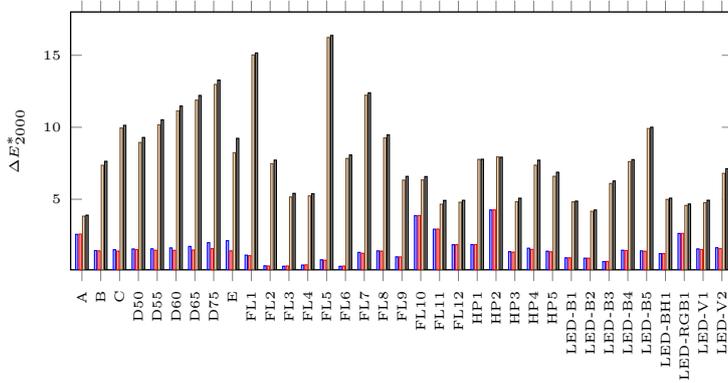
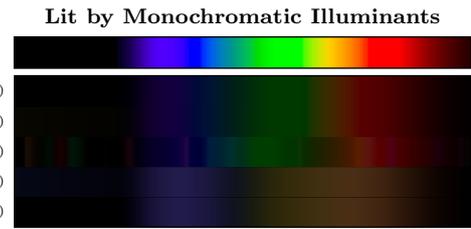
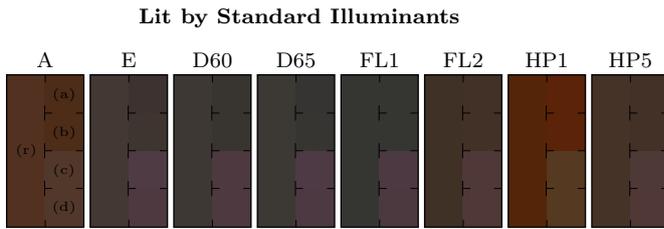
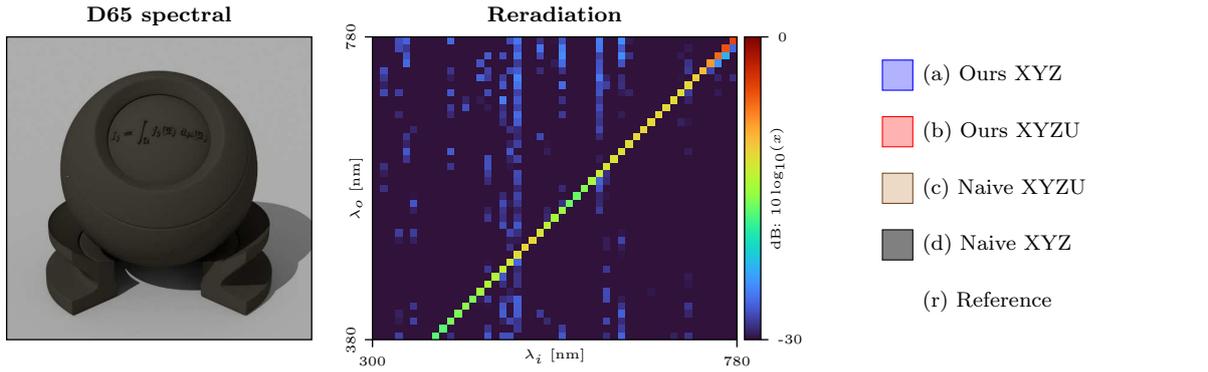
P3MPWH



P3MP1C



PXEROK1R



PLTOSF5M

