

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: PrentaLux

Report Number: P1057356

Luminaire Tested: PRLX-CYL2W-DI-X-940-10L-MD-SP-U-S-X-X-BLAK

Issue Date: 8/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1057356
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2504-407-5, G2-2504-407-4)
Test Lab: INNOVATION CENTER
Issue Date: 8/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: PrentaLux
Catalog Number: PRLX-CYL2W-DI-X-940-10L-MD-SP-U-S-X-X-BLAK
Description: PrentaLux 2-INCH CYLINDER
DOWNLIGHT 500 LUMENS, MEDIUM OPTIC (23-DEGREES)
UPLIGHT 500 LUMENS, SPOT OPTIC (19-DEGREES)
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

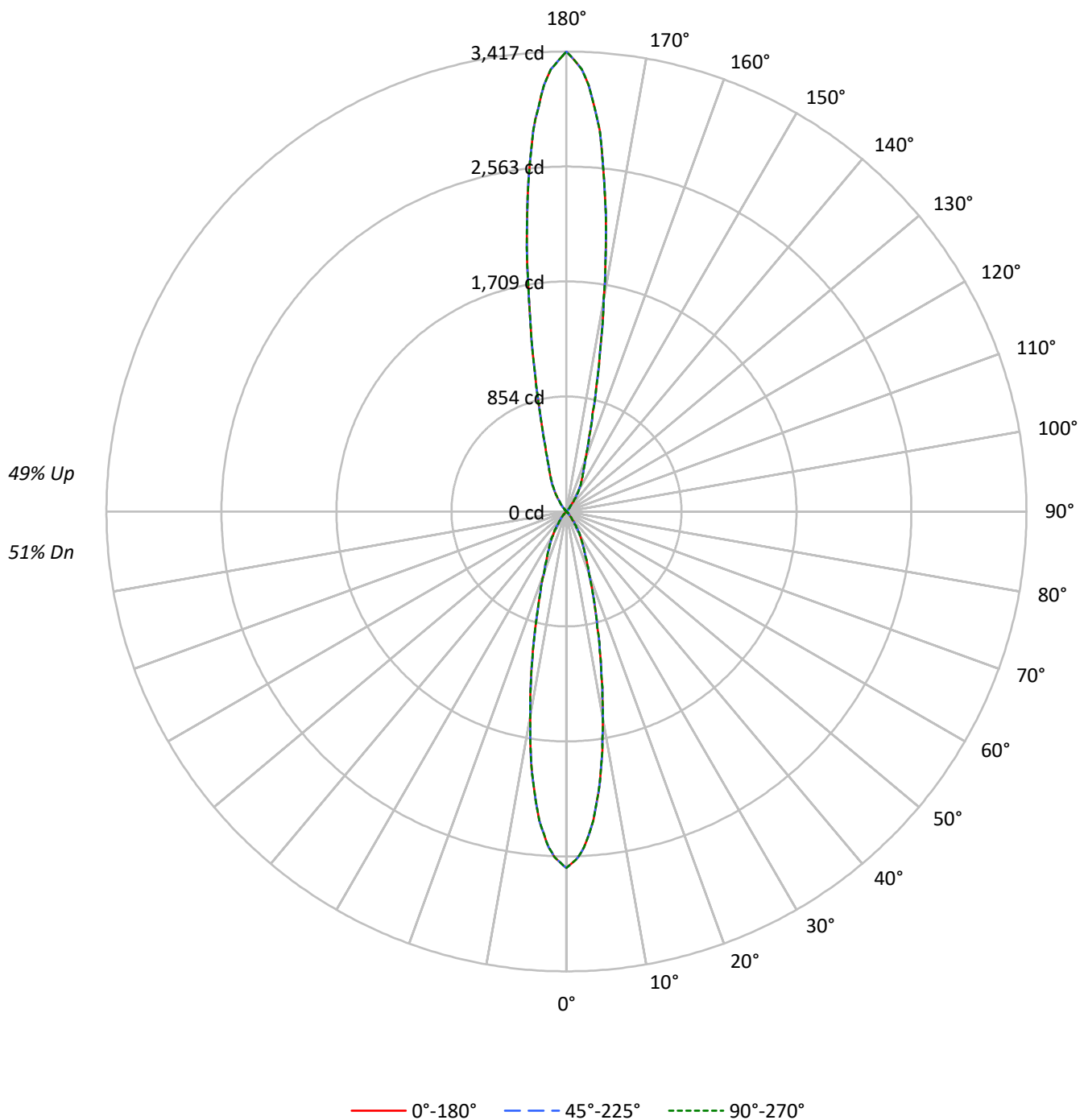
Lumens per Lamp: N/A
Luminaire Lumens: 1319.3 lumens
Efficiency: N/A
Efficacy: 149.9 lumens/watt
Spacing Criteria (0/90/45): 0.39 / 0.39 / 0.42
Luminous Opening: Circular (Dia: 0.15' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 8.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P1057356

CATALOG NUMBER: PRLX-CYL2W-DI-X-940-10L-MD-SP-U-S-X-X-BLAK

Luminous Intensity Polar Plot



TEST NUMBER: P1057356

CATALOG NUMBER: PRLX-CYL2W-DI-X-940-10L-MD-SP-U-S-X-X-BLAK

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57
1	101	98	95	92	93	91	88	86	78	76	75	66	65	64	55	54	54
2	95	89	85	81	88	83	80	77	72	70	68	62	60	59	52	52	51
3	89	82	77	73	83	77	73	69	68	64	62	59	57	55	50	49	48
4	84	76	71	66	78	72	67	63	63	60	57	56	53	51	48	47	46
5	80	71	65	61	74	67	62	58	60	56	53	53	50	48	47	45	44
6	75	66	60	56	71	63	58	54	57	53	50	51	48	46	45	43	42
7	72	62	56	52	67	59	54	50	54	50	47	48	45	43	43	41	40
8	68	59	53	49	64	56	51	47	51	47	44	46	43	41	42	40	38
9	65	56	50	46	61	53	48	45	49	45	42	44	42	40	40	38	37
10	62	53	47	44	59	51	46	42	47	43	40	43	40	38	39	37	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1706874	1706874	1706874
5°	1491061	1491061	1491061
10°	1017073	1017073	1017073
15°	592698	592698	592698
20°	337745	337745	337745
25°	218573	218573	218573
30°	144581	144581	144581
35°	75916	75916	75916
40°	29443	29443	29443
45°	9569	9569	9569
50°	4912	4912	4912
55°	3483	3483	3483
60°	2320	2320	2320
65°	1830	1830	1830
70°	1130	1130	1130
75°	1494	1494	1494
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9569 cd/sqm

TEST NUMBER: P1057356

CATALOG NUMBER: PRLX-CYL2W-DI-X-940-10L-MD-SP-U-S-X-X-BLAK

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.0	14.8
10°-20°	250.2	19.0
20°-30°	144.4	10.9
30°-40°	63.2	4.8
40°-50°	10.7	0.8
50°-60°	2.8	0.2
60°-70°	1.3	0.1
70°-80°	0.4	0.0
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.2	0.0
110°-120°	1.1	0.1
120°-130°	2.1	0.2
130°-140°	9.0	0.7
140°-150°	59.1	4.5
150°-160°	128.2	9.7
160°-170°	222.8	16.9
170°-180°	228.8	17.3
0°-30°	589.5	44.7
0°-40°	652.7	49.5
0°-60°	666.2	50.5
0°-90°	668.0	50.6
90°-120°	1.3	0.1
90°-150°	71.5	5.4
90°-180°	651.0	49.3
0°-180°	1319.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2649	2649	2649	2649	2649	
5°	2305	2305	2305	2305	2305	195
15°	888	888	888	888	888	250
25°	307	307	307	307	307	144
35°	96	96	96	96	96	63
45°	10	10	10	10	10	11
55°	3	3	3	3	3	3
65°	1	1	1	1	1	1
75°	1	1	1	1	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	1	1	1	1	1	1
125°	2	2	2	2	2	2
135°	9	9	9	9	9	9
145°	91	91	91	91	91	59
155°	277	277	277	277	277	128
165°	752	752	752	752	752	223
175°	2841	2841	2841	2841	2841	229
180°	3417	3417	3417	3417	3417	

TEST NUMBER: P1057356

CATALOG NUMBER: PRLX-CYL2W-DI-X-940-10L-MD-SP-U-S-X-X-BLAK

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2648.7	2648.7	2648.7	2648.7	2648.7
1°	2609.1	2609.1	2609.1	2609.1	2609.1
2°	2569.5	2569.5	2569.5	2569.5	2569.5
3°	2500.7	2500.7	2500.7	2500.7	2500.7
4°	2402.9	2402.9	2402.9	2402.9	2402.9
5°	2305.0	2305.0	2305.0	2305.0	2305.0
6°	2166.5	2166.5	2166.5	2166.5	2166.5
7°	2028.1	2028.1	2028.1	2028.1	2028.1
8°	1877.9	1877.9	1877.9	1877.9	1877.9
9°	1716.1	1716.1	1716.1	1716.1	1716.1
10°	1554.3	1554.3	1554.3	1554.3	1554.3
11°	1407.2	1407.2	1407.2	1407.2	1407.2
12°	1260.2	1260.2	1260.2	1260.2	1260.2
13°	1127.0	1127.0	1127.0	1127.0	1127.0
14°	1007.7	1007.7	1007.7	1007.7	1007.7
15°	888.4	888.4	888.4	888.4	888.4
16°	796.0	796.0	796.0	796.0	796.0
17°	703.5	703.5	703.5	703.5	703.5
18°	624.3	624.3	624.3	624.3	624.3
19°	558.4	558.4	558.4	558.4	558.4
20°	492.5	492.5	492.5	492.5	492.5
21°	448.9	448.9	448.9	448.9	448.9
22°	405.4	405.4	405.4	405.4	405.4
23°	368.4	368.4	368.4	368.4	368.4
24°	337.9	337.9	337.9	337.9	337.9
25°	307.4	307.4	307.4	307.4	307.4
26°	283.8	283.8	283.8	283.8	283.8
27°	260.2	260.2	260.2	260.2	260.2
28°	237.6	237.6	237.6	237.6	237.6
29°	215.9	215.9	215.9	215.9	215.9
30°	194.3	194.3	194.3	194.3	194.3
31°	173.9	173.9	173.9	173.9	173.9
32°	153.5	153.5	153.5	153.5	153.5
33°	133.9	133.9	133.9	133.9	133.9
34°	115.2	115.2	115.2	115.2	115.2
35°	96.5	96.5	96.5	96.5	96.5
36°	82.3	82.3	82.3	82.3	82.3
37°	68.0	68.0	68.0	68.0	68.0
38°	55.7	55.7	55.7	55.7	55.7
39°	45.4	45.4	45.4	45.4	45.4
40°	35.0	35.0	35.0	35.0	35.0
41°	28.9	28.9	28.9	28.9	28.9
42°	22.7	22.7	22.7	22.7	22.7
43°	17.8	17.8	17.8	17.8	17.8
44°	14.1	14.1	14.1	14.1	14.1

TEST NUMBER: P1057356

CATALOG NUMBER: PRLX-CYL2W-DI-X-940-10L-MD-SP-U-S-X-X-BLAK

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
45°	10.5	10.5	10.5	10.5	10.5
46°	9.0	9.0	9.0	9.0	9.0
47°	7.5	7.5	7.5	7.5	7.5
48°	6.4	6.4	6.4	6.4	6.4
49°	5.7	5.7	5.7	5.7	5.7
50°	4.9	4.9	4.9	4.9	4.9
51°	4.4	4.4	4.4	4.4	4.4
52°	3.9	3.9	3.9	3.9	3.9
53°	3.6	3.6	3.6	3.6	3.6
54°	3.3	3.3	3.3	3.3	3.3
55°	3.1	3.1	3.1	3.1	3.1
56°	2.8	2.8	2.8	2.8	2.8
57°	2.6	2.6	2.6	2.6	2.6
58°	2.3	2.3	2.3	2.3	2.3
59°	2.1	2.1	2.1	2.1	2.1
60°	1.8	1.8	1.8	1.8	1.8
61°	1.8	1.8	1.8	1.8	1.8
62°	1.8	1.8	1.8	1.8	1.8
63°	1.7	1.7	1.7	1.7	1.7
64°	1.5	1.5	1.5	1.5	1.5
65°	1.2	1.2	1.2	1.2	1.2
66°	1.2	1.2	1.2	1.2	1.2
67°	1.2	1.2	1.2	1.2	1.2
68°	1.1	1.1	1.1	1.1	1.1
69°	0.9	0.9	0.9	0.9	0.9
70°	0.6	0.6	0.6	0.6	0.6
71°	0.6	0.6	0.6	0.6	0.6
72°	0.6	0.6	0.6	0.6	0.6
73°	0.6	0.6	0.6	0.6	0.6
74°	0.6	0.6	0.6	0.6	0.6
75°	0.6	0.6	0.6	0.6	0.6
76°	0.4	0.4	0.4	0.4	0.4
77°	0.1	0.1	0.1	0.1	0.1
78°	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0
87°	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0
89°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1057356

CATALOG NUMBER: PRLX-CYL2W-DI-X-940-10L-MD-SP-U-S-X-X-BLAK

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
90°	0.0	0.0	0.0	0.0	0.0
91°	0.0	0.0	0.0	0.0	0.0
92°	0.0	0.0	0.0	0.0	0.0
93°	0.0	0.0	0.0	0.0	0.0
94°	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0
96°	0.0	0.0	0.0	0.0	0.0
97°	0.0	0.0	0.0	0.0	0.0
98°	0.0	0.0	0.0	0.0	0.0
99°	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0
101°	0.0	0.0	0.0	0.0	0.0
102°	0.0	0.0	0.0	0.0	0.0
103°	0.0	0.0	0.0	0.0	0.0
104°	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0
106°	0.2	0.2	0.2	0.2	0.2
107°	0.5	0.5	0.5	0.5	0.5
108°	0.6	0.6	0.6	0.6	0.6
109°	0.6	0.6	0.6	0.6	0.6
110°	0.6	0.6	0.6	0.6	0.6
111°	0.6	0.6	0.6	0.6	0.6
112°	0.6	0.6	0.6	0.6	0.6
113°	0.7	0.7	0.7	0.7	0.7
114°	1.0	1.0	1.0	1.0	1.0
115°	1.2	1.2	1.2	1.2	1.2
116°	1.2	1.2	1.2	1.2	1.2
117°	1.2	1.2	1.2	1.2	1.2
118°	1.4	1.4	1.4	1.4	1.4
119°	1.6	1.6	1.6	1.6	1.6
120°	1.8	1.8	1.8	1.8	1.8
121°	1.8	1.8	1.8	1.8	1.8
122°	1.8	1.8	1.8	1.8	1.8
123°	2.0	2.0	2.0	2.0	2.0
124°	2.2	2.2	2.2	2.2	2.2
125°	2.5	2.5	2.5	2.5	2.5
126°	2.5	2.5	2.5	2.5	2.5
127°	2.5	2.5	2.5	2.5	2.5
128°	2.7	2.7	2.7	2.7	2.7
129°	3.2	3.2	3.2	3.2	3.2
130°	3.7	3.7	3.7	3.7	3.7
131°	4.2	4.2	4.2	4.2	4.2
132°	4.7	4.7	4.7	4.7	4.7
133°	5.7	5.7	5.7	5.7	5.7
134°	7.1	7.1	7.1	7.1	7.1

TEST NUMBER: P1057356

CATALOG NUMBER: PRLX-CYL2W-DI-X-940-10L-MD-SP-U-S-X-X-BLAK

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
135°	8.6	8.6	8.6	8.6	8.6
136°	11.8	11.8	11.8	11.8	11.8
137°	15.0	15.0	15.0	15.0	15.0
138°	19.6	19.6	19.6	19.6	19.6
139°	25.5	25.5	25.5	25.5	25.5
140°	31.4	31.4	31.4	31.4	31.4
141°	41.2	41.2	41.2	41.2	41.2
142°	51.0	51.0	51.0	51.0	51.0
143°	63.0	63.0	63.0	63.0	63.0
144°	77.0	77.0	77.0	77.0	77.0
145°	91.0	91.0	91.0	91.0	91.0
146°	108.5	108.5	108.5	108.5	108.5
147°	125.9	125.9	125.9	125.9	125.9
148°	144.4	144.4	144.4	144.4	144.4
149°	163.8	163.8	163.8	163.8	163.8
150°	183.2	183.2	183.2	183.2	183.2
151°	201.9	201.9	201.9	201.9	201.9
152°	220.6	220.6	220.6	220.6	220.6
153°	239.3	239.3	239.3	239.3	239.3
154°	258.0	258.0	258.0	258.0	258.0
155°	276.7	276.7	276.7	276.7	276.7
156°	298.6	298.6	298.6	298.6	298.6
157°	320.4	320.4	320.4	320.4	320.4
158°	347.0	347.0	347.0	347.0	347.0
159°	378.2	378.2	378.2	378.2	378.2
160°	409.5	409.5	409.5	409.5	409.5
161°	460.4	460.4	460.4	460.4	460.4
162°	511.3	511.3	511.3	511.3	511.3
163°	579.8	579.8	579.8	579.8	579.8
164°	665.9	665.9	665.9	665.9	665.9
165°	751.9	751.9	751.9	751.9	751.9
166°	889.2	889.2	889.2	889.2	889.2
167°	1026.4	1026.4	1026.4	1026.4	1026.4
168°	1196.3	1196.3	1196.3	1196.3	1196.3
169°	1399.0	1399.0	1399.0	1399.0	1399.0
170°	1601.6	1601.6	1601.6	1601.6	1601.6
171°	1855.7	1855.7	1855.7	1855.7	1855.7
172°	2109.7	2109.7	2109.7	2109.7	2109.7
173°	2357.6	2357.6	2357.6	2357.6	2357.6
174°	2599.4	2599.4	2599.4	2599.4	2599.4
175°	2841.1	2841.1	2841.1	2841.1	2841.1
176°	3006.6	3006.6	3006.6	3006.6	3006.6
177°	3172.2	3172.2	3172.2	3172.2	3172.2
178°	3287.3	3287.3	3287.3	3287.3	3287.3
179°	3351.9	3351.9	3351.9	3351.9	3351.9



TEST NUMBER: P1057356
CATALOG NUMBER: PRLX-CYL2W-DI-X-940-10L-MD-SP-U-S-X-X-BLAK

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
180°	3416.6	3416.6	3416.6	3416.6	3416.6

TEST NUMBER: P1057356

CATALOG NUMBER: PRLX-CYL2W-DI-X-940-10L-MD-SP-U-S-X-X-BLAK

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	0.00	0.00	0.12	0.73	2.01	0.00	0.00	0.12	0.73	2.01
	3H	0.00	0.45	0.90	1.44	2.74	0.00	0.45	0.90	1.44	2.74
	4H	0.12	0.66	1.15	1.65	2.96	0.12	0.66	1.15	1.65	2.96
	6H	0.01	0.50	1.04	1.50	2.82	0.01	0.50	1.04	1.50	2.82
	8H	0.00	0.41	0.98	1.42	2.74	0.00	0.41	0.98	1.42	2.74
	12H	0.00	0.32	0.92	1.33	2.66	0.00	0.32	0.92	1.33	2.66
4H	2H	0.00	0.00	0.26	0.75	2.07	0.00	0.00	0.26	0.75	2.07
	3H	0.06	0.50	1.09	1.52	2.85	0.06	0.50	1.09	1.52	2.85
	4H	0.42	0.83	1.46	1.84	3.19	0.42	0.83	1.46	1.84	3.19
	6H	0.31	0.65	1.35	1.69	3.03	0.31	0.65	1.35	1.69	3.03
	8H	0.24	0.56	1.29	1.59	2.94	0.24	0.56	1.29	1.59	2.94
	12H	0.17	0.45	1.23	1.50	2.85	0.17	0.45	1.23	1.50	2.85
8H	4H	0.35	0.68	1.40	1.70	3.06	0.35	0.68	1.40	1.70	3.06
	6H	0.23	0.49	1.30	1.56	2.92	0.23	0.49	1.30	1.56	2.92
	8H	0.17	0.40	1.25	1.46	2.83	0.17	0.40	1.25	1.46	2.83
	12H	0.11	0.30	1.18	1.35	2.77	0.11	0.30	1.18	1.35	2.77
12H	4H	0.28	0.57	1.34	1.61	2.97	0.28	0.57	1.34	1.61	2.97
	6H	0.17	0.40	1.25	1.46	2.83	0.17	0.40	1.25	1.46	2.83
	8H	0.11	0.30	1.18	1.35	2.77	0.11	0.30	1.18	1.35	2.77

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

PrentaLux 3D Printing

Report Number: SP1-2504-407-3

Test Date: 07/17/2025

Luminaire Tested: PRLX-CYL2-X-940-10L-FL-U-S-X-X-BLAK

Data in this report applies to families of products including PRLX-CYL2-X-940-10L-FL-U-S-X-X-BLAK

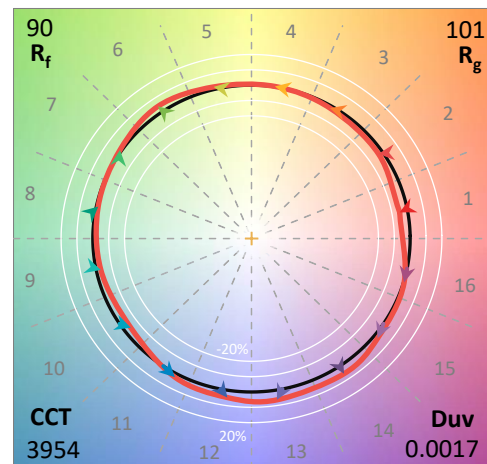
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2504-407-3
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 07/17/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: PrentaLux 3D Printing
 Catalog Number: **PRLX-CYL2-X-940-10L-FL-U-S-X-X-BLAK**
 Description: PrentaLux 2-INCH CYLINDER, BLACK TRIM, FLOOD OPTIC, 1000 LUMENS, 4000K

Spectral Parameters

CCT (K): 3954
 CIE u' : 0.2250
 CIE v' : 0.5045
 Duv: 0.0017
 CIE x: 0.3837
 CIE y: 0.3823
 CIE z: 0.2340
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 578
 Purity: 29.89095
 R_f: 90.1
 R_g: 100.8

CRI (Ra): 91.7
 R1: 93.4
 R2: 92.6
 R3: 90.2
 R4: 93.3
 R5: 91.9
 R6: 90.2
 R7: 94.3
 R8: 88.1
 R9: 64.7
 R10: 80.5
 R11: 93.0
 R12: 70.7
 R13: 92.6
 R14: 93.6
 R15: 90.8



Test Conditions

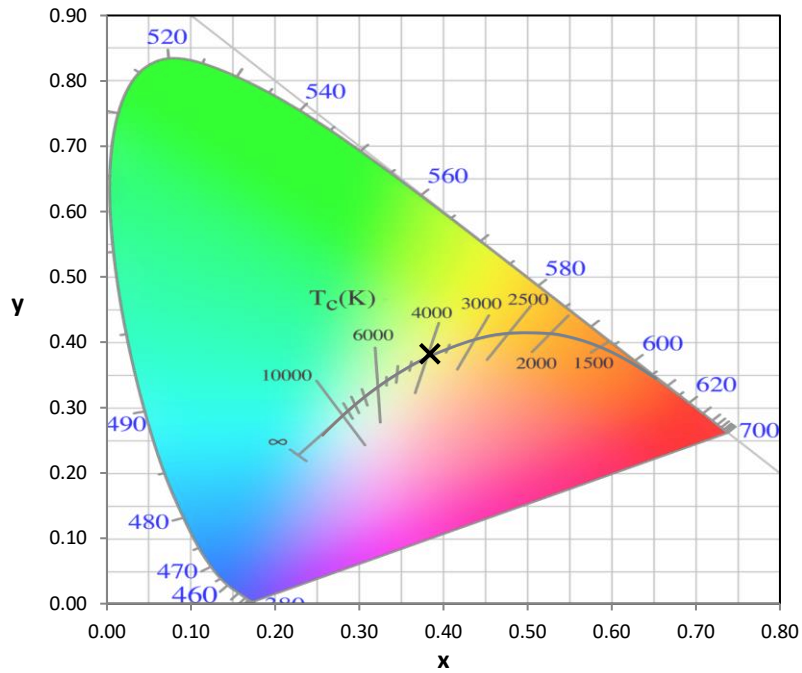
Stabilization Time: 52M
 Operation Time: 1H 52M
 Sphere Temperature (°C): 24.0

REPORT NUMBER: SP1-2504-407-3

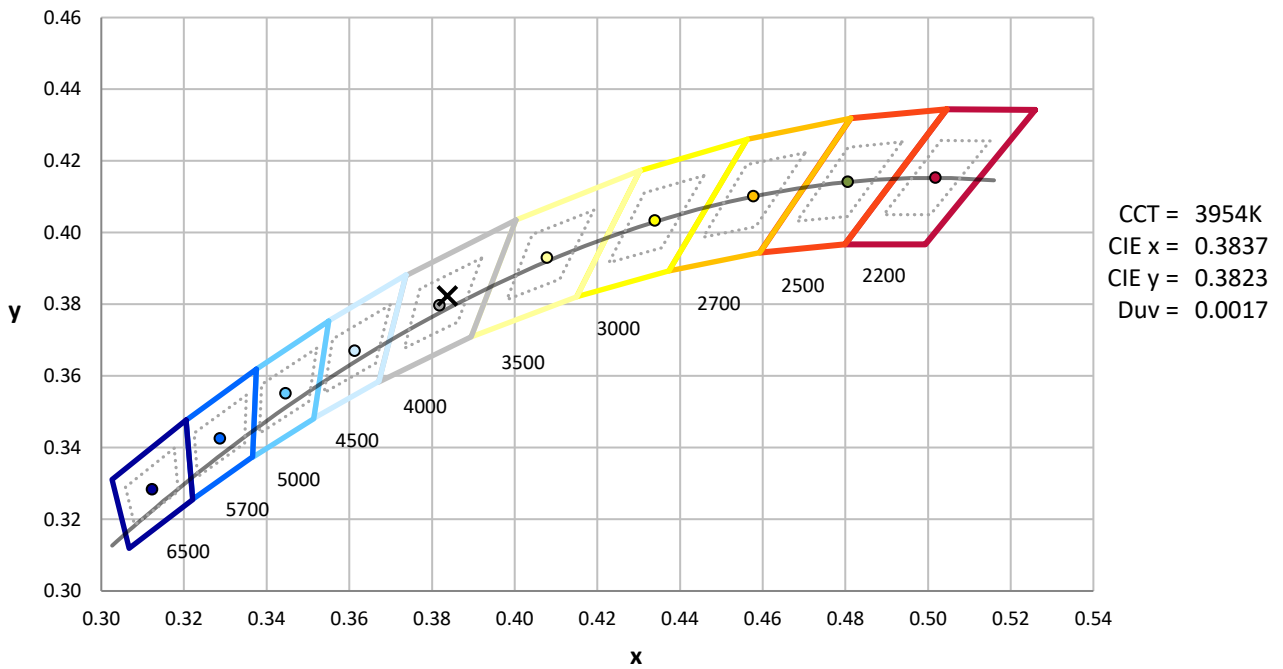
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208	10/22/2024	10/22/2025
Sphere Thermometer	ONSET IN0085	10/22/2024	10/22/2025
Room Thermometer	ONSET IN0046	10/22/2024	10/22/2025

REPORT NUMBER: SP1-2504-407-3

CIE 1931 Chromaticity Diagram

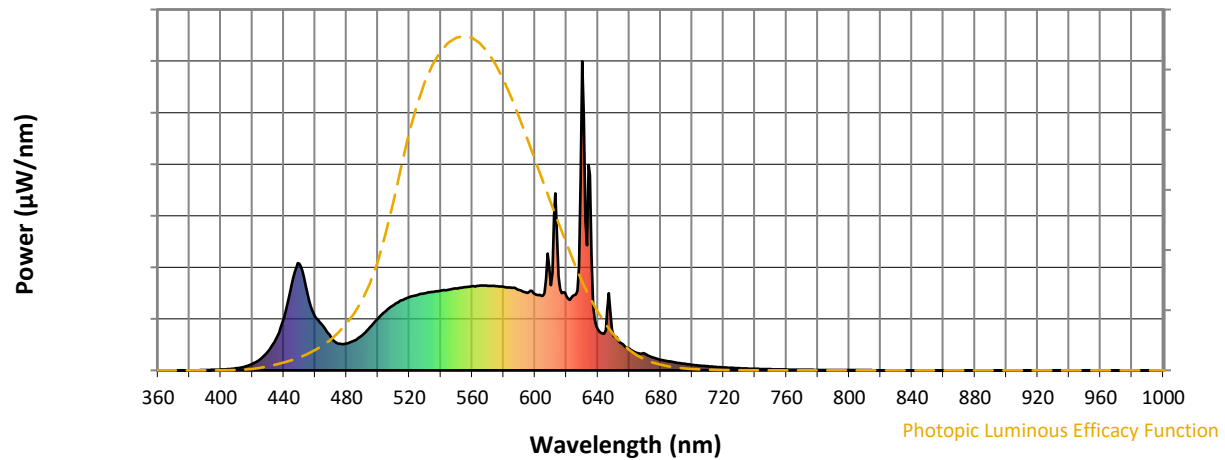


CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 4-step quadrangle

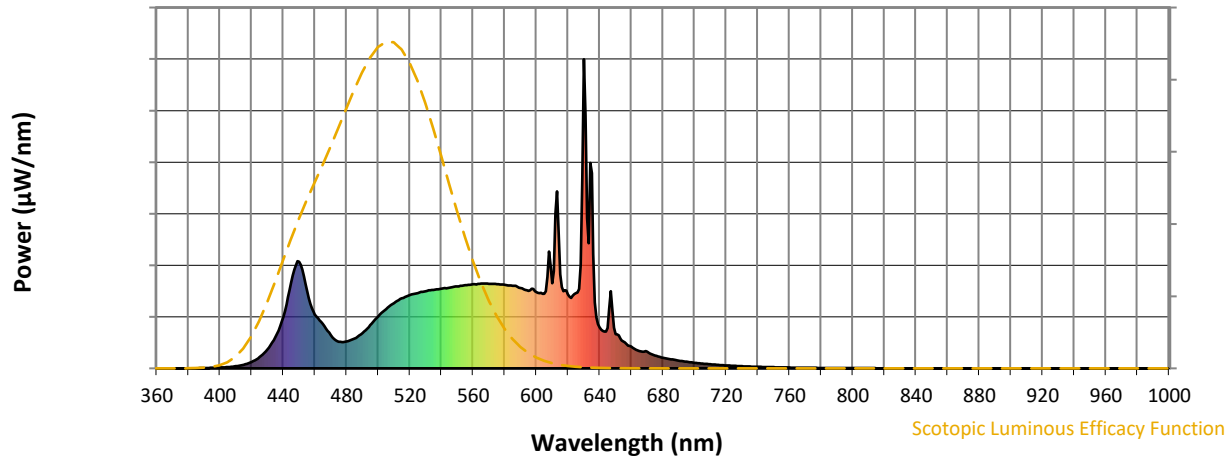
REPORT NUMBER: SP1-2504-407-3

Photopic Flux vs. Wavelength

Photopic Lumens: NR

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	114	NR	620	240	NR	750	4	NR	880	0	NR
365	0	NR	495	140	NR	625	244	NR	755	3	NR	885	0	NR
370	0	NR	500	168	NR	630	1000	NR	760	3	NR	890	0	NR
375	0	NR	505	192	NR	635	631	NR	765	2	NR	895	0	NR
380	0	NR	510	212	NR	640	133	NR	770	2	NR	900	0	NR
385	0	NR	515	227	NR	645	131	NR	775	2	NR	905	0	NR
390	1	NR	520	237	NR	650	111	NR	780	1	NR	910	0	NR
395	2	NR	525	244	NR	655	87	NR	785	1	NR	915	0	NR
400	3	NR	530	249	NR	660	71	NR	790	1	NR	920	0	NR
405	4	NR	535	254	NR	665	56	NR	795	1	NR	925	0	NR
410	7	NR	540	257	NR	670	54	NR	800	1	NR	930	0	NR
415	12	NR	545	261	NR	675	41	NR	805	1	NR	935	0	NR
420	21	NR	550	265	NR	680	35	NR	810	1	NR	940	0	NR
425	36	NR	555	269	NR	685	29	NR	815	1	NR	945	0	NR
430	61	NR	560	273	NR	690	25	NR	820	0	NR	950	0	NR
435	101	NR	565	274	NR	695	21	NR	825	0	NR	955	0	NR
440	167	NR	570	273	NR	700	18	NR	830	0	NR	960	0	NR
445	278	NR	575	272	NR	705	15	NR	835	0	NR	965	0	NR
450	345	NR	580	270	NR	710	13	NR	840	0	NR	970	0	NR
455	250	NR	585	267	NR	715	11	NR	845	0	NR	975	0	NR
460	174	NR	590	260	NR	720	10	NR	850	0	NR	980	0	NR
465	144	NR	595	251	NR	725	8	NR	855	0	NR	985	0	NR
470	107	NR	600	246	NR	730	7	NR	860	0	NR	990	0	NR
475	86	NR	605	241	NR	735	6	NR	865	0	NR	995	0	NR
480	87	NR	610	276	NR	740	5	NR	870	0	NR	1000	0	NR
485	96	NR	615	304	NR	745	4	NR	875	0	NR			

REPORT NUMBER: SP1-2504-407-3

Scotopic Flux vs. Wavelength



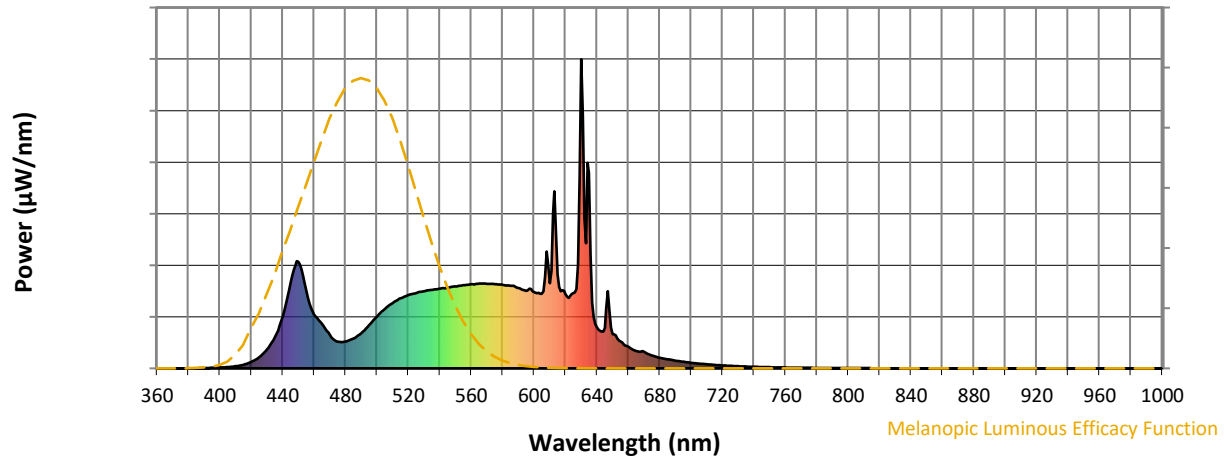
Scotopic Lumens: NR

S/P: 1.72

λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)
360	0	NR	490	114	NR	620	240	NR	750	4	NR	880	0	NR
365	0	NR	495	140	NR	625	244	NR	755	3	NR	885	0	NR
370	0	NR	500	168	NR	630	1000	NR	760	3	NR	890	0	NR
375	0	NR	505	192	NR	635	631	NR	765	2	NR	895	0	NR
380	0	NR	510	212	NR	640	133	NR	770	2	NR	900	0	NR
385	0	NR	515	227	NR	645	131	NR	775	2	NR	905	0	NR
390	1	NR	520	237	NR	650	111	NR	780	1	NR	910	0	NR
395	2	NR	525	244	NR	655	87	NR	785	1	NR	915	0	NR
400	3	NR	530	249	NR	660	71	NR	790	1	NR	920	0	NR
405	4	NR	535	254	NR	665	56	NR	795	1	NR	925	0	NR
410	7	NR	540	257	NR	670	54	NR	800	1	NR	930	0	NR
415	12	NR	545	261	NR	675	41	NR	805	1	NR	935	0	NR
420	21	NR	550	265	NR	680	35	NR	810	1	NR	940	0	NR
425	36	NR	555	269	NR	685	29	NR	815	1	NR	945	0	NR
430	61	NR	560	273	NR	690	25	NR	820	0	NR	950	0	NR
435	101	NR	565	274	NR	695	21	NR	825	0	NR	955	0	NR
440	167	NR	570	273	NR	700	18	NR	830	0	NR	960	0	NR
445	278	NR	575	272	NR	705	15	NR	835	0	NR	965	0	NR
450	345	NR	580	270	NR	710	13	NR	840	0	NR	970	0	NR
455	250	NR	585	267	NR	715	11	NR	845	0	NR	975	0	NR
460	174	NR	590	260	NR	720	10	NR	850	0	NR	980	0	NR
465	144	NR	595	251	NR	725	8	NR	855	0	NR	985	0	NR
470	107	NR	600	246	NR	730	7	NR	860	0	NR	990	0	NR
475	86	NR	605	241	NR	735	6	NR	865	0	NR	995	0	NR
480	87	NR	610	276	NR	740	5	NR	870	0	NR	1000	0	NR
485	96	NR	615	304	NR	745	4	NR	875	0	NR			

REPORT NUMBER: SP1-2504-407-3

Melanopic Flux vs. Wavelength

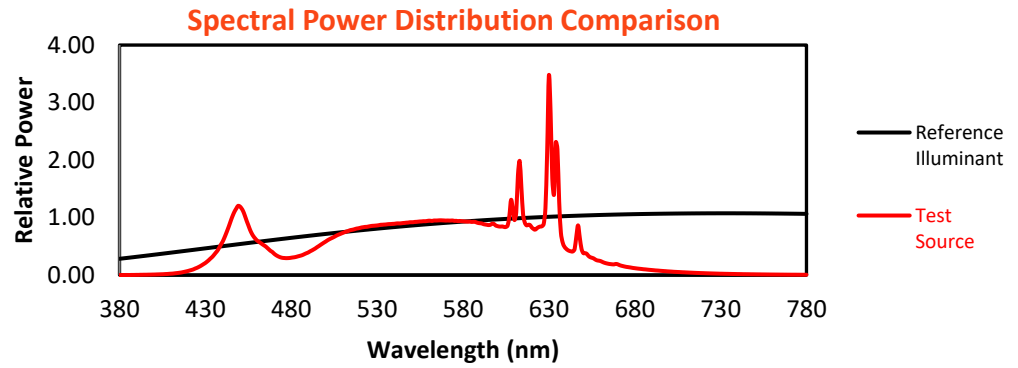
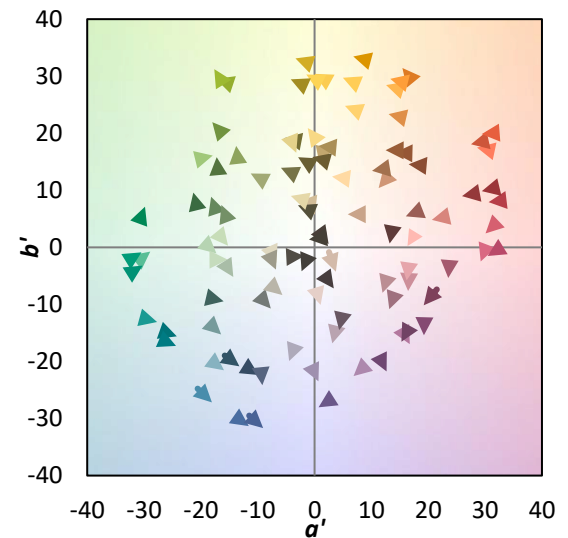
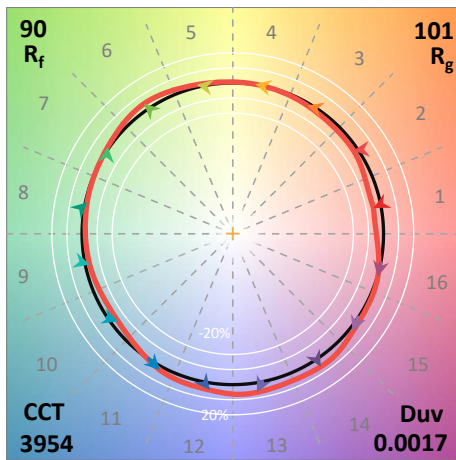
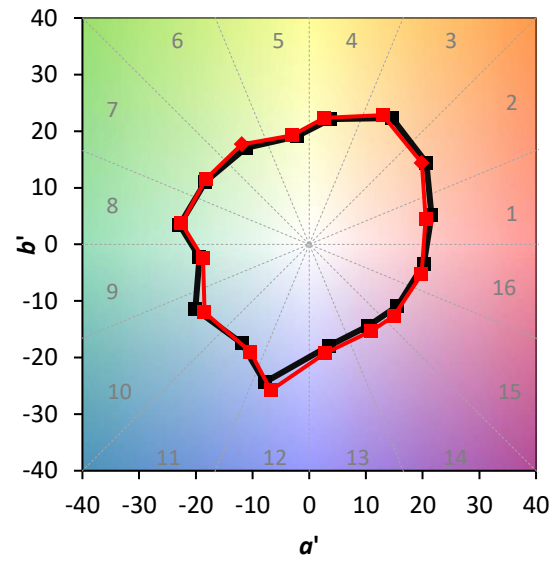
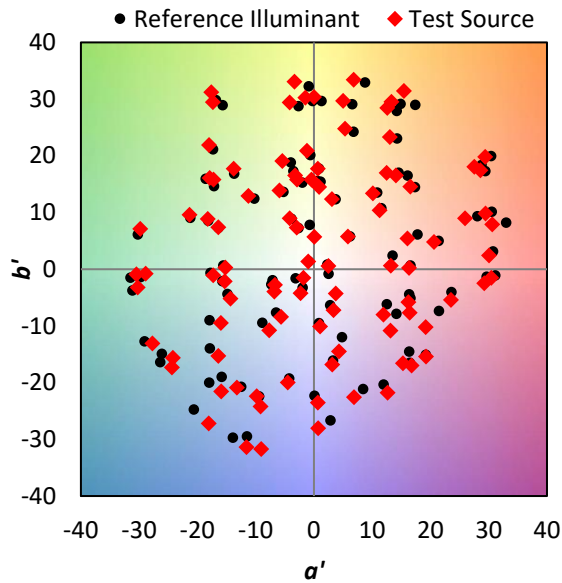


Melanopic Lumens: NR

M/P: 3.49

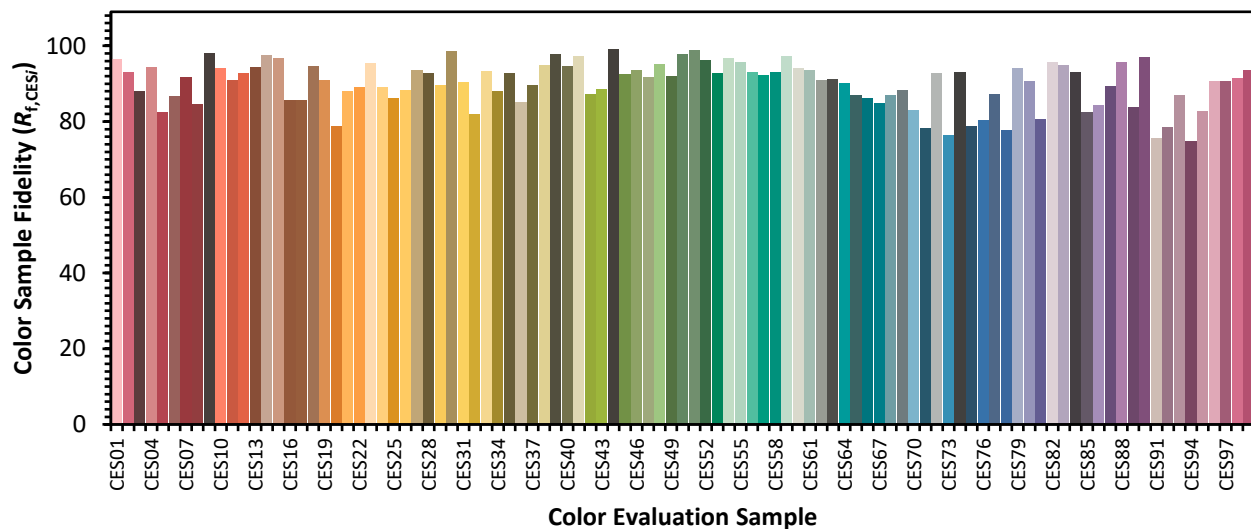
λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)
360	0	NR	490	114	NR	620	240	NR	750	4	NR	880	0	NR
365	0	NR	495	140	NR	625	244	NR	755	3	NR	885	0	NR
370	0	NR	500	168	NR	630	1000	NR	760	3	NR	890	0	NR
375	0	NR	505	192	NR	635	631	NR	765	2	NR	895	0	NR
380	0	NR	510	212	NR	640	133	NR	770	2	NR	900	0	NR
385	0	NR	515	227	NR	645	131	NR	775	2	NR	905	0	NR
390	1	NR	520	237	NR	650	111	NR	780	1	NR	910	0	NR
395	2	NR	525	244	NR	655	87	NR	785	1	NR	915	0	NR
400	3	NR	530	249	NR	660	71	NR	790	1	NR	920	0	NR
405	4	NR	535	254	NR	665	56	NR	795	1	NR	925	0	NR
410	7	NR	540	257	NR	670	54	NR	800	1	NR	930	0	NR
415	12	NR	545	261	NR	675	41	NR	805	1	NR	935	0	NR
420	21	NR	550	265	NR	680	35	NR	810	1	NR	940	0	NR
425	36	NR	555	269	NR	685	29	NR	815	1	NR	945	0	NR
430	61	NR	560	273	NR	690	25	NR	820	0	NR	950	0	NR
435	101	NR	565	274	NR	695	21	NR	825	0	NR	955	0	NR
440	167	NR	570	273	NR	700	18	NR	830	0	NR	960	0	NR
445	278	NR	575	272	NR	705	15	NR	835	0	NR	965	0	NR
450	345	NR	580	270	NR	710	13	NR	840	0	NR	970	0	NR
455	250	NR	585	267	NR	715	11	NR	845	0	NR	975	0	NR
460	174	NR	590	260	NR	720	10	NR	850	0	NR	980	0	NR
465	144	NR	595	251	NR	725	8	NR	855	0	NR	985	0	NR
470	107	NR	600	246	NR	730	7	NR	860	0	NR	990	0	NR
475	86	NR	605	241	NR	735	6	NR	865	0	NR	995	0	NR
480	87	NR	610	276	NR	740	5	NR	870	0	NR	1000	0	NR
485	96	NR	615	304	NR	745	4	NR	875	0	NR			

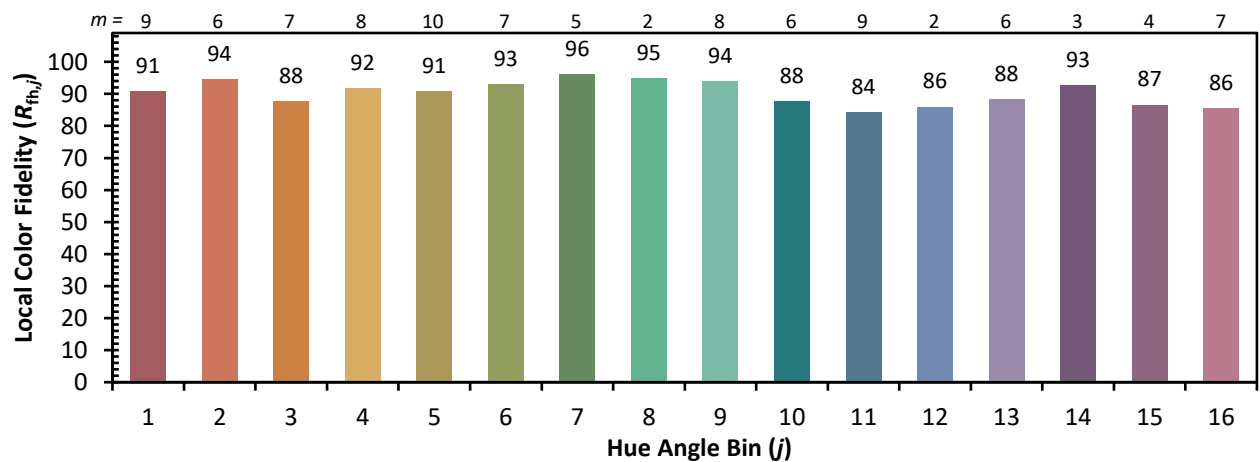
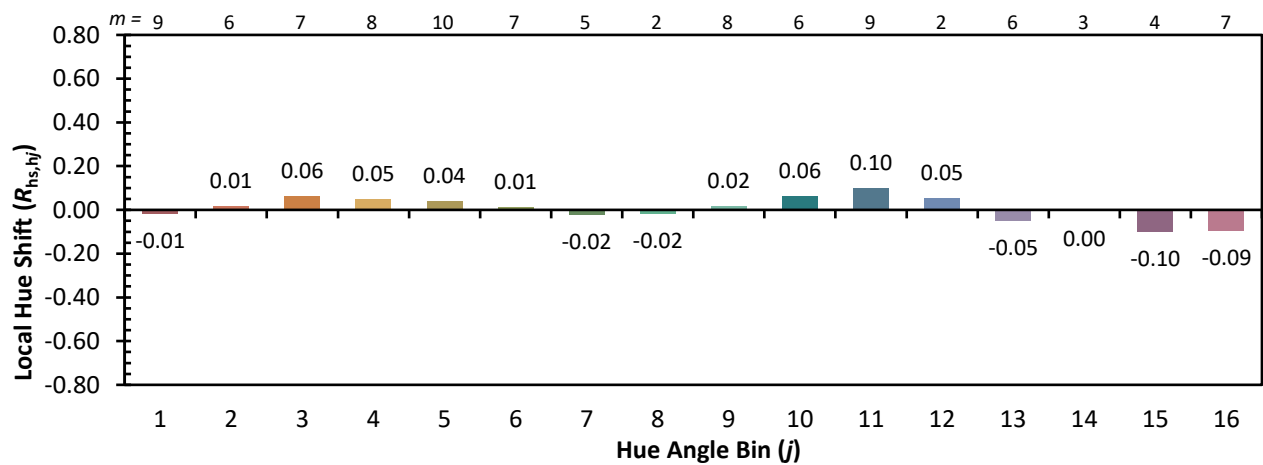
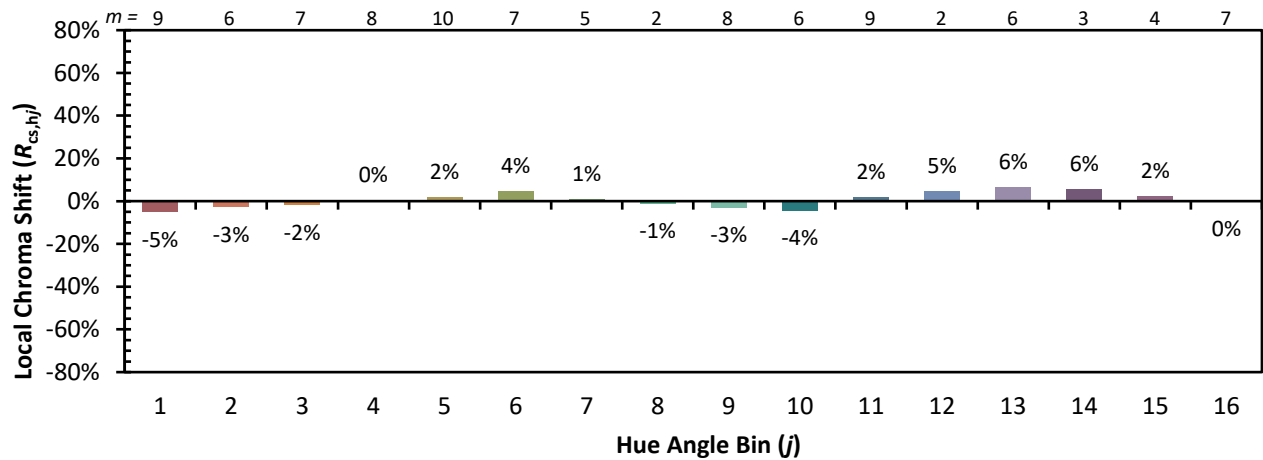
REPORT NUMBER: SP1-2504-407-3

TM-30-18
Summary
 $R_f = 90.1$
 $R_g = 100.8$
 CIE $R_a = 91.7$
 $R_9 = 64.7$

Color Vector Graphics


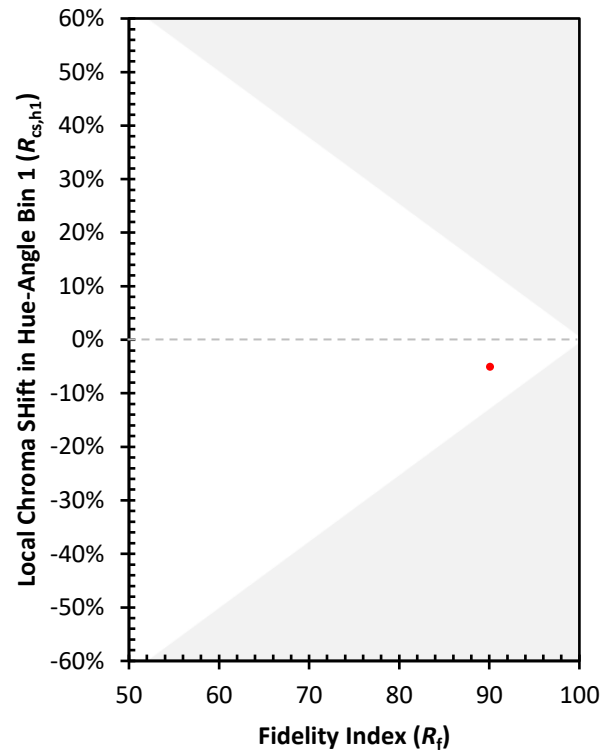
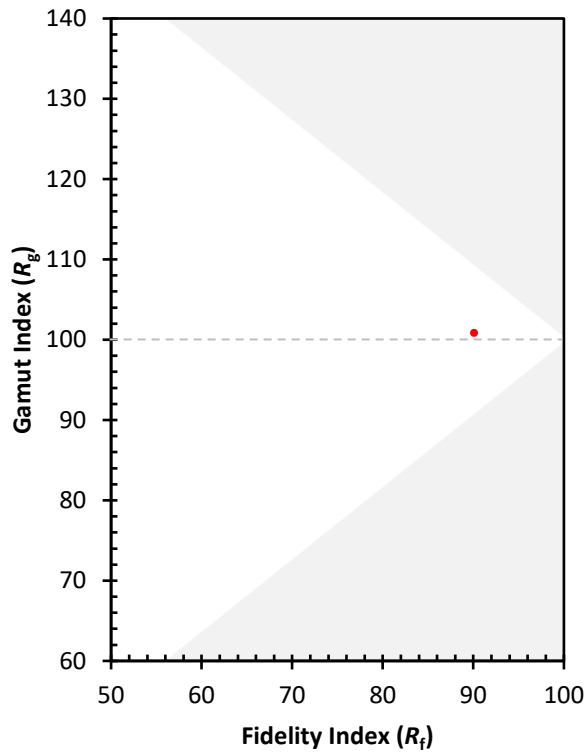
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 85	CES26 = 88	CES51 = 99	CES76 = 80
CES02 = 61	CES27 = 94	CES52 = 96	CES77 = 87
CES03 = 31	CES28 = 93	CES53 = 93	CES78 = 78
CES04 = 69	CES29 = 90	CES54 = 97	CES79 = 94
CES05 = 49	CES30 = 99	CES55 = 96	CES80 = 91
CES06 = 50	CES31 = 90	CES56 = 93	CES81 = 81
CES07 = 42	CES32 = 82	CES57 = 92	CES82 = 96
CES08 = 41	CES33 = 93	CES58 = 93	CES83 = 95
CES09 = 29	CES34 = 88	CES59 = 97	CES84 = 93
CES10 = 74	CES35 = 93	CES60 = 94	CES85 = 82
CES11 = 57	CES36 = 85	CES61 = 94	CES86 = 84
CES12 = 63	CES37 = 90	CES62 = 91	CES87 = 89
CES13 = 43	CES38 = 95	CES63 = 91	CES88 = 96
CES14 = 74	CES39 = 98	CES64 = 90	CES89 = 84
CES15 = 71	CES40 = 95	CES65 = 87	CES90 = 97
CES16 = 47	CES41 = 97	CES66 = 86	CES91 = 75
CES17 = 49	CES42 = 87	CES67 = 85	CES92 = 78
CES18 = 56	CES43 = 89	CES68 = 87	CES93 = 87
CES19 = 71	CES44 = 99	CES69 = 88	CES94 = 75
CES20 = 66	CES45 = 92	CES70 = 83	CES95 = 83
CES21 = 85	CES46 = 94	CES71 = 78	CES96 = 91
CES22 = 78	CES47 = 92	CES72 = 93	CES97 = 91
CES23 = 91	CES48 = 95	CES73 = 77	CES98 = 91
CES24 = 90	CES49 = 92	CES74 = 93	CES99 = 94
CES25 = 71	CES50 = 98	CES75 = 79	



Color Rendition by Hue-Angle Bin


Measure Comparisons



(END OF REPORT)