

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: P1057335

Luminaire Tested: PRLX-CYL2W-DI-X-935-20L-FL-NF-U-S-X-X-BLAK

Issue Date: 8/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1057335
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2504-407-3, G2-2504-407-2)
Test Lab: INNOVATION CENTER
Issue Date: 8/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: PrentaLux
Catalog Number: PRLX-CYL2W-DI-X-935-20L-FL-NF-U-S-X-X-BLAK
Description: PrentaLux 2-INCH CYLINDER
DOWNLIGHT 1000 LUMENS, FLOOD OPTIC (38-DEGREES)
UPLIGHT 1000 LUMENS, NARROW FLOOD OPTIC (27-DEGREES)
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

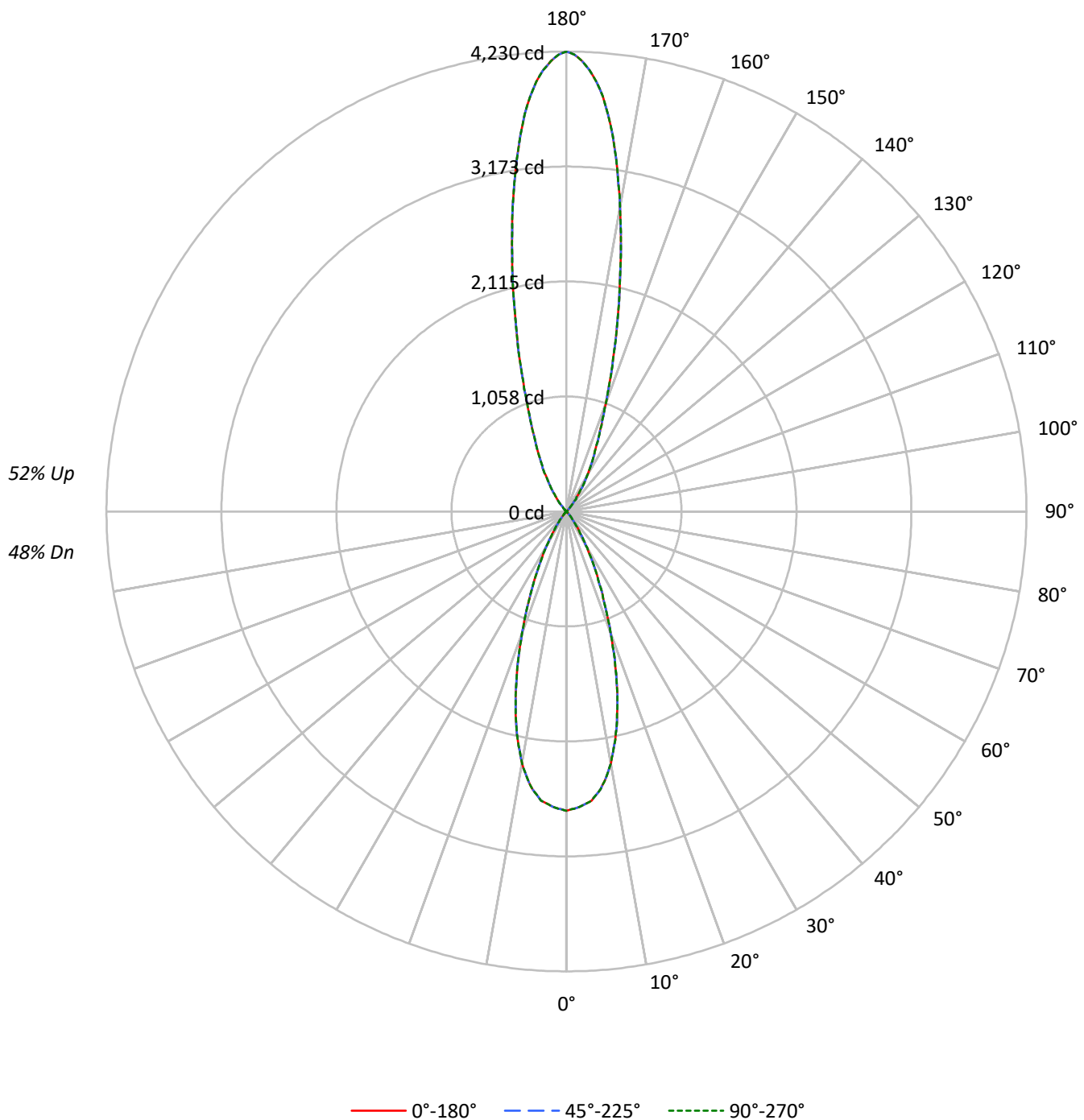
Lumens per Lamp: N/A
Luminaire Lumens: 2467.5 lumens
Efficiency: N/A
Efficacy: 138.6 lumens/watt
Spacing Criteria (0/90/45): 0.61 / 0.61 / 0.6
Luminous Opening: Circular (Dia: 0.15' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 17.8
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: P1057335

CATALOG NUMBER: PRLX-CYL2W-DI-X-935-20L-FL-NF-U-S-X-X-BLAK

Luminous Intensity Polar Plot



TEST NUMBER: P1057335

CATALOG NUMBER: PRLX-CYL2W-DI-X-935-20L-FL-NF-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	98	98	98	98	82	82	82	68	68	68	54	54	54
1	100	97	94	91	92	89	87	85	76	74	73	63	62	61	52	51	51
2	94	88	84	80	87	82	78	75	70	68	65	60	58	56	50	49	48
3	88	81	75	71	81	76	71	67	65	62	60	56	54	52	48	46	45
4	83	75	69	64	77	70	65	61	61	58	55	53	51	49	46	44	43
5	78	69	63	58	73	65	60	56	57	54	51	50	48	45	44	42	41
6	74	64	58	54	69	61	55	51	54	50	47	48	45	43	42	40	39
7	70	60	54	50	65	57	52	48	51	47	44	45	42	40	40	38	37
8	66	56	50	46	62	54	48	45	48	44	41	43	40	38	38	37	35
9	63	53	47	43	59	51	45	42	46	42	39	41	38	36	37	35	34
10	60	50	44	41	56	48	43	39	44	40	37	39	37	35	36	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1774216	1774216	1774216
5°	1726720	1726720	1726720
10°	1538533	1538533	1538533
15°	1207145	1207145	1207145
20°	814223	814223	814223
25°	490403	490403	490403
30°	265276	265276	265276
35°	111789	111789	111789
40°	37266	37266	37266
45°	15949	15949	15949
50°	9324	9324	9324
55°	6516	6516	6516
60°	4511	4511	4511
65°	3507	3507	3507
70°	2261	2261	2261
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 15949 cd/sqm

TEST NUMBER: P1057335

CATALOG NUMBER: PRLX-CYL2W-DI-X-935-20L-FL-NF-U-S-X-X-BLAK

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.3	9.9
10°-20°	490.7	19.9
20°-30°	322.2	13.1
30°-40°	99.2	4.0
40°-50°	15.7	0.6
50°-60°	5.3	0.2
60°-70°	2.0	0.1
70°-80°	0.5	0.0
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.8	0.0
110°-120°	2.7	0.1
120°-130°	5.8	0.2
130°-140°	22.0	0.9
140°-150°	124.6	5.0
150°-160°	298.8	12.1
160°-170°	499.8	20.3
170°-180°	333.1	13.5
0°-30°	1057.2	42.8
0°-40°	1156.4	46.9
0°-60°	1177.4	47.7
0°-90°	1179.9	47.8
90°-120°	3.5	0.1
90°-150°	155.9	6.3
90°-180°	1288.0	52.2
0°-180°	2467.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2753	2753	2753	2753	2753	
5°	2669	2669	2669	2669	2669	244
15°	1809	1809	1809	1809	1809	491
25°	690	690	690	690	690	322
35°	142	142	142	142	142	99
45°	18	18	18	18	18	16
55°	6	6	6	6	6	5
65°	2	2	2	2	2	2
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0
95°	0	0	0	0	0	0
105°	1	1	1	1	1	1
115°	2	2	2	2	2	3
125°	6	6	6	6	6	6
135°	22	22	22	22	22	22
145°	190	190	190	190	190	125
155°	634	634	634	634	634	299
165°	1810	1810	1810	1810	1810	500
175°	3831	3831	3831	3831	3831	333
180°	4230	4230	4230	4230	4230	

TEST NUMBER: P1057335

CATALOG NUMBER: PRLX-CYL2W-DI-X-935-20L-FL-NF-U-S-X-X-BLAK

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2753.2	2753.2	2753.2	2753.2	2753.2
1°	2740.6	2740.6	2740.6	2740.6	2740.6
2°	2728.0	2728.0	2728.0	2728.0	2728.0
3°	2711.2	2711.2	2711.2	2711.2	2711.2
4°	2690.2	2690.2	2690.2	2690.2	2690.2
5°	2669.3	2669.3	2669.3	2669.3	2669.3
6°	2620.3	2620.3	2620.3	2620.3	2620.3
7°	2571.4	2571.4	2571.4	2571.4	2571.4
8°	2507.8	2507.8	2507.8	2507.8	2507.8
9°	2429.5	2429.5	2429.5	2429.5	2429.5
10°	2351.2	2351.2	2351.2	2351.2	2351.2
11°	2251.5	2251.5	2251.5	2251.5	2251.5
12°	2151.7	2151.7	2151.7	2151.7	2151.7
13°	2043.4	2043.4	2043.4	2043.4	2043.4
14°	1926.4	1926.4	1926.4	1926.4	1926.4
15°	1809.4	1809.4	1809.4	1809.4	1809.4
16°	1685.0	1685.0	1685.0	1685.0	1685.0
17°	1560.6	1560.6	1560.6	1560.6	1560.6
18°	1436.1	1436.1	1436.1	1436.1	1436.1
19°	1311.7	1311.7	1311.7	1311.7	1311.7
20°	1187.3	1187.3	1187.3	1187.3	1187.3
21°	1078.7	1078.7	1078.7	1078.7	1078.7
22°	970.1	970.1	970.1	970.1	970.1
23°	870.6	870.6	870.6	870.6	870.6
24°	780.2	780.2	780.2	780.2	780.2
25°	689.7	689.7	689.7	689.7	689.7
26°	617.0	617.0	617.0	617.0	617.0
27°	544.3	544.3	544.3	544.3	544.3
28°	477.7	477.7	477.7	477.7	477.7
29°	417.1	417.1	417.1	417.1	417.1
30°	356.5	356.5	356.5	356.5	356.5
31°	307.1	307.1	307.1	307.1	307.1
32°	257.7	257.7	257.7	257.7	257.7
33°	214.8	214.8	214.8	214.8	214.8
34°	178.5	178.5	178.5	178.5	178.5
35°	142.1	142.1	142.1	142.1	142.1
36°	117.4	117.4	117.4	117.4	117.4
37°	92.7	92.7	92.7	92.7	92.7
38°	73.2	73.2	73.2	73.2	73.2
39°	58.7	58.7	58.7	58.7	58.7
40°	44.3	44.3	44.3	44.3	44.3
41°	36.8	36.8	36.8	36.8	36.8
42°	29.4	29.4	29.4	29.4	29.4
43°	24.0	24.0	24.0	24.0	24.0
44°	20.7	20.7	20.7	20.7	20.7

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CATALOG NUMBER: PRLX-CYL2W-DI-X-935-20L-FL-NF-U-S-X-X-BLAK

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
45°	17.5	17.5	17.5	17.5	17.5
46°	15.6	15.6	15.6	15.6	15.6
47°	13.7	13.7	13.7	13.7	13.7
48°	12.1	12.1	12.1	12.1	12.1
49°	10.7	10.7	10.7	10.7	10.7
50°	9.3	9.3	9.3	9.3	9.3
51°	8.4	8.4	8.4	8.4	8.4
52°	7.5	7.5	7.5	7.5	7.5
53°	6.8	6.8	6.8	6.8	6.8
54°	6.3	6.3	6.3	6.3	6.3
55°	5.8	5.8	5.8	5.8	5.8
56°	5.4	5.4	5.4	5.4	5.4
57°	4.9	4.9	4.9	4.9	4.9
58°	4.4	4.4	4.4	4.4	4.4
59°	4.0	4.0	4.0	4.0	4.0
60°	3.5	3.5	3.5	3.5	3.5
61°	3.0	3.0	3.0	3.0	3.0
62°	2.6	2.6	2.6	2.6	2.6
63°	2.3	2.3	2.3	2.3	2.3
64°	2.3	2.3	2.3	2.3	2.3
65°	2.3	2.3	2.3	2.3	2.3
66°	1.9	1.9	1.9	1.9	1.9
67°	1.4	1.4	1.4	1.4	1.4
68°	1.2	1.2	1.2	1.2	1.2
69°	1.2	1.2	1.2	1.2	1.2
70°	1.2	1.2	1.2	1.2	1.2
71°	1.2	1.2	1.2	1.2	1.2
72°	1.2	1.2	1.2	1.2	1.2
73°	0.9	0.9	0.9	0.9	0.9
74°	0.5	0.5	0.5	0.5	0.5
75°	0.0	0.0	0.0	0.0	0.0
76°	0.0	0.0	0.0	0.0	0.0
77°	0.0	0.0	0.0	0.0	0.0
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

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CATALOG NUMBER: PRLX-CYL2W-DI-X-935-20L-FL-NF-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°	0.2	0.2	0.2	0.2	0.2
104°	0.7	0.7	0.7	0.7	0.7
105°	1.2	1.2	1.2	1.2	1.2
106°	1.2	1.2	1.2	1.2	1.2
107°	1.2	1.2	1.2	1.2	1.2
108°	1.2	1.2	1.2	1.2	1.2
109°	1.2	1.2	1.2	1.2	1.2
110°	1.2	1.2	1.2	1.2	1.2
111°	1.6	1.6	1.6	1.6	1.6
112°	2.1	2.1	2.1	2.1	2.1
113°	2.3	2.3	2.3	2.3	2.3
114°	2.3	2.3	2.3	2.3	2.3
115°	2.3	2.3	2.3	2.3	2.3
116°	2.8	2.8	2.8	2.8	2.8
117°	3.3	3.3	3.3	3.3	3.3
118°	3.7	3.7	3.7	3.7	3.7
119°	4.2	4.2	4.2	4.2	4.2
120°	4.7	4.7	4.7	4.7	4.7
121°	4.7	4.7	4.7	4.7	4.7
122°	4.7	4.7	4.7	4.7	4.7
123°	4.9	4.9	4.9	4.9	4.9
124°	5.4	5.4	5.4	5.4	5.4
125°	5.8	5.8	5.8	5.8	5.8
126°	6.8	6.8	6.8	6.8	6.8
127°	7.7	7.7	7.7	7.7	7.7
128°	8.6	8.6	8.6	8.6	8.6
129°	9.6	9.6	9.6	9.6	9.6
130°	10.5	10.5	10.5	10.5	10.5
131°	11.9	11.9	11.9	11.9	11.9
132°	13.3	13.3	13.3	13.3	13.3
133°	15.6	15.6	15.6	15.6	15.6
134°	18.9	18.9	18.9	18.9	18.9

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CATALOG NUMBER: PRLX-CYL2W-DI-X-935-20L-FL-NF-U-S-X-X-BLAK

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
135°	22.1	22.1	22.1	22.1	22.1
136°	29.1	29.1	29.1	29.1	29.1
137°	36.1	36.1	36.1	36.1	36.1
138°	45.9	45.9	45.9	45.9	45.9
139°	58.5	58.5	58.5	58.5	58.5
140°	71.1	71.1	71.1	71.1	71.1
141°	90.6	90.6	90.6	90.6	90.6
142°	110.2	110.2	110.2	110.2	110.2
143°	134.0	134.0	134.0	134.0	134.0
144°	162.0	162.0	162.0	162.0	162.0
145°	189.9	189.9	189.9	189.9	189.9
146°	226.3	226.3	226.3	226.3	226.3
147°	262.6	262.6	262.6	262.6	262.6
148°	301.5	301.5	301.5	301.5	301.5
149°	343.0	343.0	343.0	343.0	343.0
150°	384.5	384.5	384.5	384.5	384.5
151°	430.6	430.6	430.6	430.6	430.6
152°	476.8	476.8	476.8	476.8	476.8
153°	526.6	526.6	526.6	526.6	526.6
154°	580.2	580.2	580.2	580.2	580.2
155°	633.8	633.8	633.8	633.8	633.8
156°	703.3	703.3	703.3	703.3	703.3
157°	772.7	772.7	772.7	772.7	772.7
158°	856.8	856.8	856.8	856.8	856.8
159°	955.7	955.7	955.7	955.7	955.7
160°	1054.5	1054.5	1054.5	1054.5	1054.5
161°	1187.8	1187.8	1187.8	1187.8	1187.8
162°	1321.0	1321.0	1321.0	1321.0	1321.0
163°	1472.0	1472.0	1472.0	1472.0	1472.0
164°	1640.8	1640.8	1640.8	1640.8	1640.8
165°	1809.5	1809.5	1809.5	1809.5	1809.5
166°	1998.2	1998.2	1998.2	1998.2	1998.2
167°	2197.5	2197.5	2197.5	2197.5	2197.5
168°	2406.0	2406.0	2406.0	2406.0	2406.0
169°	2618.1	2618.1	2618.1	2618.1	2618.1
170°	2840.6	2840.6	2840.6	2840.6	2840.6
171°	3059.7	3059.7	3059.7	3059.7	3059.7
172°	3277.6	3277.6	3277.6	3277.6	3277.6
173°	3483.8	3483.8	3483.8	3483.8	3483.8
174°	3672.5	3672.5	3672.5	3672.5	3672.5
175°	3831.0	3831.0	3831.0	3831.0	3831.0
176°	3963.8	3963.8	3963.8	3963.8	3963.8
177°	4065.2	4065.2	4065.2	4065.2	4065.2
178°	4143.3	4143.3	4143.3	4143.3	4143.3
179°	4202.7	4202.7	4202.7	4202.7	4202.7



TEST NUMBER: P1057335

CATALOG NUMBER: PRLX-CYL2W-DI-X-935-20L-FL-NF-U-S-X-X-BLAK

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
180°	4229.5	4229.5	4229.5	4229.5	4229.5

TEST NUMBER: P1057335

CATALOG NUMBER: PRLX-CYL2W-DI-X-935-20L-FL-NF-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	1.33	1.96	2.35	2.96	4.28	1.33	1.96	2.35	2.96	4.28
	3H	1.55	2.11	2.59	3.12	4.47	1.55	2.11	2.59	3.12	4.47
	4H	1.49	2.02	2.54	3.03	4.38	1.49	2.02	2.54	3.03	4.38
	6H	1.38	1.86	2.43	2.88	4.24	1.38	1.86	2.43	2.88	4.24
	8H	1.31	1.77	2.37	2.80	4.16	1.31	1.77	2.37	2.80	4.16
	12H	1.25	1.69	2.31	2.71	4.08	1.25	1.69	2.31	2.71	4.08
4H	2H	1.40	1.93	2.45	2.94	4.29	1.40	1.93	2.45	2.94	4.29
	3H	1.79	2.23	2.85	3.27	4.63	1.79	2.23	2.85	3.27	4.63
	4H	1.72	2.12	2.78	3.15	4.54	1.72	2.12	2.78	3.15	4.54
	6H	1.60	1.95	2.67	3.00	4.38	1.60	1.95	2.67	3.00	4.38
	8H	1.54	1.86	2.60	2.90	4.29	1.54	1.86	2.60	2.90	4.29
	12H	1.46	1.75	2.54	2.81	4.20	1.46	1.75	2.54	2.81	4.20
8H	4H	1.59	1.90	2.65	2.95	4.34	1.59	1.90	2.65	2.95	4.34
	6H	1.46	1.72	2.55	2.81	4.20	1.46	1.72	2.55	2.81	4.20
	8H	1.40	1.63	2.50	2.70	4.11	1.40	1.63	2.50	2.70	4.11
	12H	1.34	1.53	2.43	2.60	4.05	1.34	1.53	2.43	2.60	4.05
12H	4H	1.51	1.80	2.59	2.86	4.25	1.51	1.80	2.59	2.86	4.25
	6H	1.40	1.63	2.50	2.70	4.11	1.40	1.63	2.50	2.70	4.11
	8H	1.34	1.53	2.43	2.60	4.05	1.34	1.53	2.43	2.60	4.05

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: SP1-2504-407-2

Test Date: 07/17/2025

Luminaire Tested: PRLX-CYL2-X-935-10L-FL-U-S-X-X-BLAK

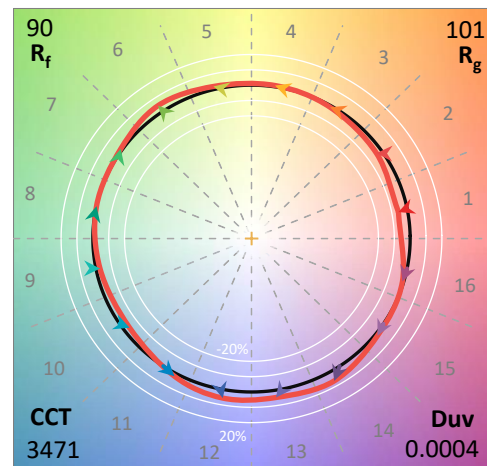
Data in this report applies to families of products including PRLX-CYL2-X-935-10L-FL-U-S-X-X-BLAK

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2504-407-2
 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-935-10L-FL-U-S-X-X-BLAK**
 Description: PrentaLux 2-INCH CYLINDER, BLACK TRIM, FLOOD OPTIC, 1000 LUMENS, 3500K

Spectral Parameters

CCT (K):	3471	CRI (Ra):	92.0		
CIE u':	0.2363	R1:	93.5	R9:	60.0
CIE v':	0.5123	R2:	93.8	R10:	83.3
Duv:	0.0004	R3:	92.5	R11:	93.8
CIE x:	0.4073	R4:	93.5	R12:	74.7
CIE y:	0.3925	R5:	92.3	R13:	93.1
CIE z:	0.2001	R6:	92.2	R14:	94.7
Peak Wavelength (nm):	630	R7:	93.3	R15:	90.1
Dominant Wavelength (nm):	580	R8:	85.0		
Purity:	40.06645				
Rf:	90				
Rg:	100.7				



Test Conditions

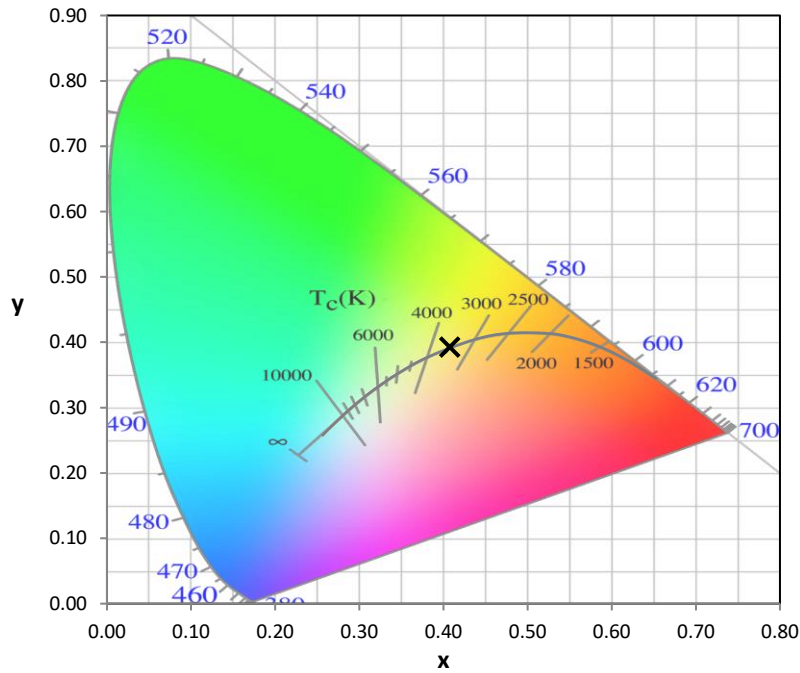
Stabilization Time: 64M
 Operation Time: 2H 4M
 Sphere Temperature (°C): 24.0

REPORT NUMBER: SP1-2504-407-2

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

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CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2504-407-2

Photopic Flux vs. Wavelength



Photopic Lumens: NR

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	96	NR	620	248	NR	750	4	NR	880	0	NR
365	0	NR	495	117	NR	625	252	NR	755	3	NR	885	0	NR
370	0	NR	500	140	NR	630	1000	NR	760	3	NR	890	0	NR
375	0	NR	505	161	NR	635	638	NR	765	2	NR	895	0	NR
380	0	NR	510	179	NR	640	139	NR	770	2	NR	900	0	NR
385	0	NR	515	192	NR	645	136	NR	775	2	NR	905	0	NR
390	0	NR	520	201	NR	650	116	NR	780	1	NR	910	0	NR
395	1	NR	525	208	NR	655	91	NR	785	1	NR	915	0	NR
400	2	NR	530	214	NR	660	74	NR	790	1	NR	920	0	NR
405	3	NR	535	220	NR	665	59	NR	795	1	NR	925	0	NR
410	5	NR	540	225	NR	670	57	NR	800	1	NR	930	0	NR
415	8	NR	545	231	NR	675	43	NR	805	1	NR	935	0	NR
420	15	NR	550	237	NR	680	37	NR	810	1	NR	940	0	NR
425	26	NR	555	243	NR	685	31	NR	815	1	NR	945	0	NR
430	44	NR	560	250	NR	690	26	NR	820	0	NR	950	0	NR
435	72	NR	565	255	NR	695	22	NR	825	0	NR	955	0	NR
440	120	NR	570	259	NR	700	19	NR	830	0	NR	960	0	NR
445	206	NR	575	262	NR	705	16	NR	835	0	NR	965	0	NR
450	267	NR	580	263	NR	710	14	NR	840	0	NR	970	0	NR
455	197	NR	585	263	NR	715	12	NR	845	0	NR	975	0	NR
460	138	NR	590	260	NR	720	10	NR	850	0	NR	980	0	NR
465	117	NR	595	253	NR	725	8	NR	855	0	NR	985	0	NR
470	88	NR	600	250	NR	730	7	NR	860	0	NR	990	0	NR
475	71	NR	605	247	NR	735	6	NR	865	0	NR	995	0	NR
480	73	NR	610	284	NR	740	5	NR	870	0	NR	1000	0	NR
485	81	NR	615	315	NR	745	4	NR	875	0	NR			

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Scotopic Flux vs. Wavelength



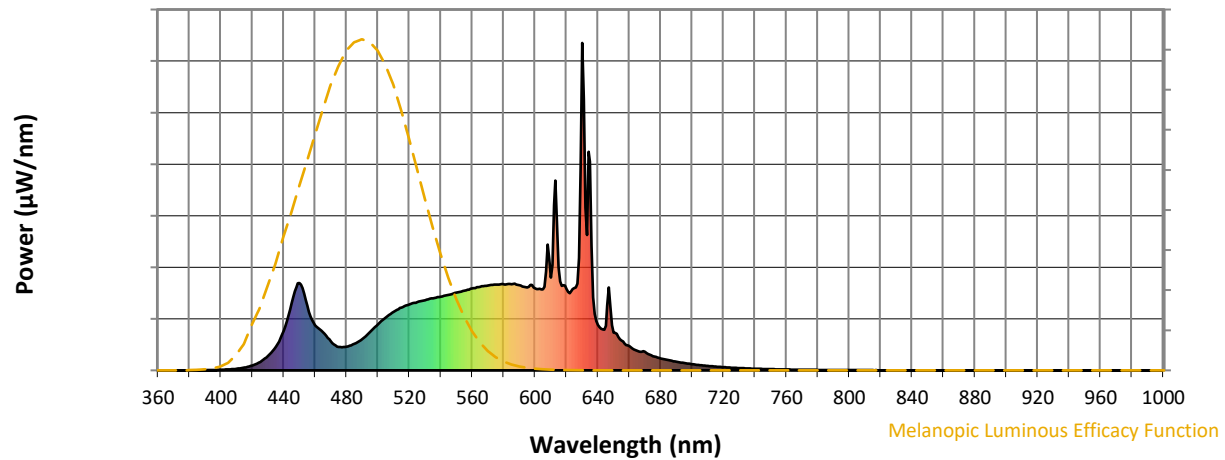
Scotopic Lumens: NR

S/P: 1.57

λ (nm)	Power W [^] /nm	Lumens (Φ/nm)	λ (nm)	Power W [^] /nm	Lumens (Φ/nm)	λ (nm)	Power W [^] /nm	Lumens (Φ/nm)	λ (nm)	Power W [^] /nm	Lumens (Φ/nm)	λ (nm)	Power W [^] /nm	Lumens (Φ/nm)
360	0	NR	490	96	NR	620	248	NR	750	4	NR	880	0	NR
365	0	NR	495	117	NR	625	252	NR	755	3	NR	885	0	NR
370	0	NR	500	140	NR	630	1000	NR	760	3	NR	890	0	NR
375	0	NR	505	161	NR	635	638	NR	765	2	NR	895	0	NR
380	0	NR	510	179	NR	640	139	NR	770	2	NR	900	0	NR
385	0	NR	515	192	NR	645	136	NR	775	2	NR	905	0	NR
390	0	NR	520	201	NR	650	116	NR	780	1	NR	910	0	NR
395	1	NR	525	208	NR	655	91	NR	785	1	NR	915	0	NR
400	2	NR	530	214	NR	660	74	NR	790	1	NR	920	0	NR
405	3	NR	535	220	NR	665	59	NR	795	1	NR	925	0	NR
410	5	NR	540	225	NR	670	57	NR	800	1	NR	930	0	NR
415	8	NR	545	231	NR	675	43	NR	805	1	NR	935	0	NR
420	15	NR	550	237	NR	680	37	NR	810	1	NR	940	0	NR
425	26	NR	555	243	NR	685	31	NR	815	1	NR	945	0	NR
430	44	NR	560	250	NR	690	26	NR	820	0	NR	950	0	NR
435	72	NR	565	255	NR	695	22	NR	825	0	NR	955	0	NR
440	120	NR	570	259	NR	700	19	NR	830	0	NR	960	0	NR
445	206	NR	575	262	NR	705	16	NR	835	0	NR	965	0	NR
450	267	NR	580	263	NR	710	14	NR	840	0	NR	970	0	NR
455	197	NR	585	263	NR	715	12	NR	845	0	NR	975	0	NR
460	138	NR	590	260	NR	720	10	NR	850	0	NR	980	0	NR
465	117	NR	595	253	NR	725	8	NR	855	0	NR	985	0	NR
470	88	NR	600	250	NR	730	7	NR	860	0	NR	990	0	NR
475	71	NR	605	247	NR	735	6	NR	865	0	NR	995	0	NR
480	73	NR	610	284	NR	740	5	NR	870	0	NR	1000	0	NR
485	81	NR	615	315	NR	745	4	NR	875	0	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.11

λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	96	NR	620	248	NR	750	4	NR	880	0	NR
365	0	NR	495	117	NR	625	252	NR	755	3	NR	885	0	NR
370	0	NR	500	140	NR	630	1000	NR	760	3	NR	890	0	NR
375	0	NR	505	161	NR	635	638	NR	765	2	NR	895	0	NR
380	0	NR	510	179	NR	640	139	NR	770	2	NR	900	0	NR
385	0	NR	515	192	NR	645	136	NR	775	2	NR	905	0	NR
390	0	NR	520	201	NR	650	116	NR	780	1	NR	910	0	NR
395	1	NR	525	208	NR	655	91	NR	785	1	NR	915	0	NR
400	2	NR	530	214	NR	660	74	NR	790	1	NR	920	0	NR
405	3	NR	535	220	NR	665	59	NR	795	1	NR	925	0	NR
410	5	NR	540	225	NR	670	57	NR	800	1	NR	930	0	NR
415	8	NR	545	231	NR	675	43	NR	805	1	NR	935	0	NR
420	15	NR	550	237	NR	680	37	NR	810	1	NR	940	0	NR
425	26	NR	555	243	NR	685	31	NR	815	1	NR	945	0	NR
430	44	NR	560	250	NR	690	26	NR	820	0	NR	950	0	NR
435	72	NR	565	255	NR	695	22	NR	825	0	NR	955	0	NR
440	120	NR	570	259	NR	700	19	NR	830	0	NR	960	0	NR
445	206	NR	575	262	NR	705	16	NR	835	0	NR	965	0	NR
450	267	NR	580	263	NR	710	14	NR	840	0	NR	970	0	NR
455	197	NR	585	263	NR	715	12	NR	845	0	NR	975	0	NR
460	138	NR	590	260	NR	720	10	NR	850	0	NR	980	0	NR
465	117	NR	595	253	NR	725	8	NR	855	0	NR	985	0	NR
470	88	NR	600	250	NR	730	7	NR	860	0	NR	990	0	NR
475	71	NR	605	247	NR	735	6	NR	865	0	NR	995	0	NR
480	73	NR	610	284	NR	740	5	NR	870	0	NR	1000	0	NR
485	81	NR	615	315	NR	745	4	NR	875	0	NR			

REPORT NUMBER: SP1-2504-407-2

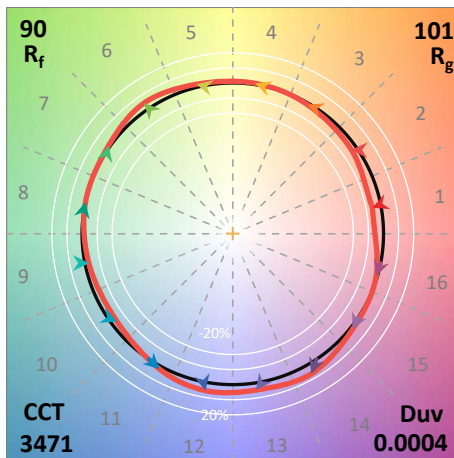
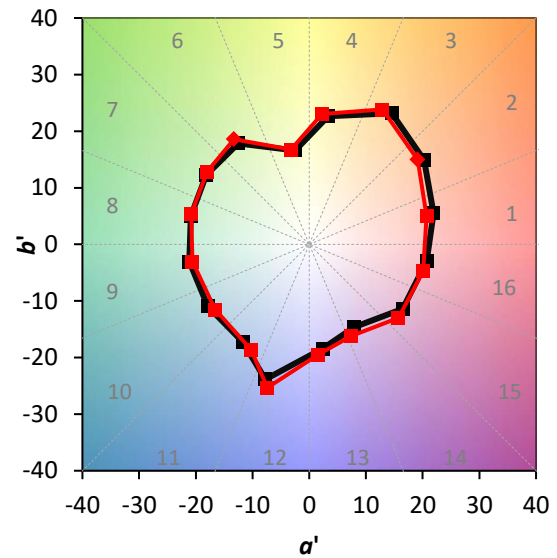
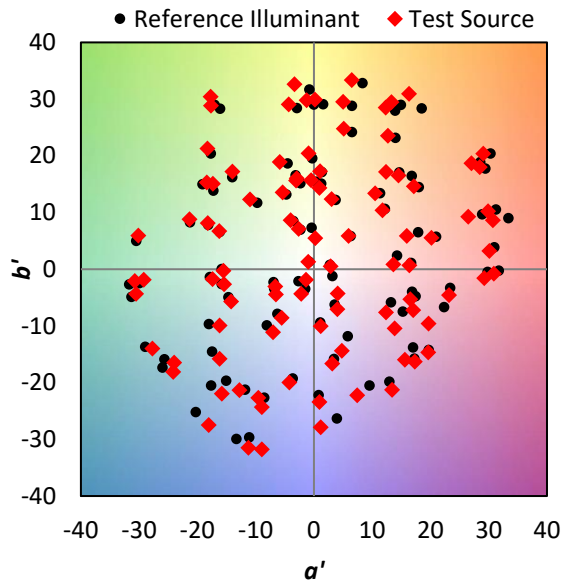
TM-30-18

Summary

$R_f = 90$
 $R_g = 100.7$
 $CIE R_a = 92.0$
 $R_9 = 60.0$

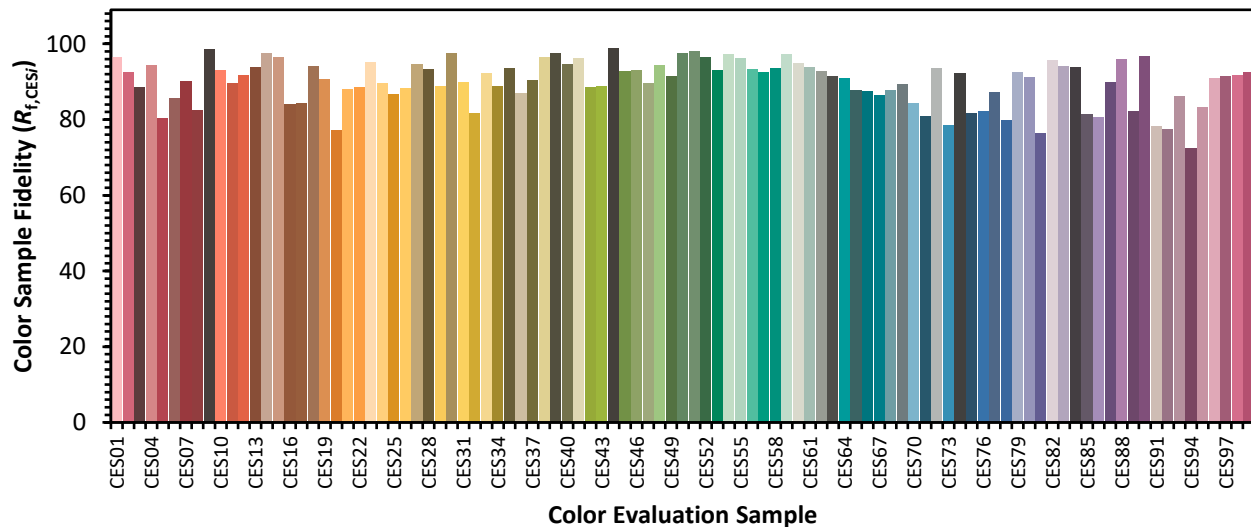


Color Vector Graphics



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

CES01 = 86	CES26 = 88	CES51 = 98	CES76 = 82
CES02 = 62	CES27 = 95	CES52 = 96	CES77 = 87
CES03 = 31	CES28 = 93	CES53 = 93	CES78 = 80
CES04 = 70	CES29 = 89	CES54 = 97	CES79 = 93
CES05 = 49	CES30 = 97	CES55 = 96	CES80 = 91
CES06 = 51	CES31 = 90	CES56 = 93	CES81 = 77
CES07 = 43	CES32 = 82	CES57 = 93	CES82 = 96
CES08 = 41	CES33 = 92	CES58 = 94	CES83 = 94
CES09 = 29	CES34 = 89	CES59 = 97	CES84 = 94
CES10 = 75	CES35 = 93	CES60 = 95	CES85 = 81
CES11 = 58	CES36 = 87	CES61 = 94	CES86 = 81
CES12 = 64	CES37 = 90	CES62 = 93	CES87 = 90
CES13 = 43	CES38 = 97	CES63 = 91	CES88 = 96
CES14 = 74	CES39 = 98	CES64 = 91	CES89 = 82
CES15 = 71	CES40 = 95	CES65 = 88	CES90 = 97
CES16 = 47	CES41 = 96	CES66 = 88	CES91 = 78
CES17 = 49	CES42 = 88	CES67 = 86	CES92 = 77
CES18 = 56	CES43 = 89	CES68 = 88	CES93 = 86
CES19 = 71	CES44 = 99	CES69 = 89	CES94 = 72
CES20 = 66	CES45 = 93	CES70 = 84	CES95 = 83
CES21 = 86	CES46 = 93	CES71 = 81	CES96 = 91
CES22 = 78	CES47 = 90	CES72 = 94	CES97 = 92
CES23 = 91	CES48 = 95	CES73 = 78	CES98 = 92
CES24 = 90	CES49 = 91	CES74 = 92	CES99 = 93
CES25 = 71	CES50 = 98	CES75 = 82	



Color Rendition by Hue-Angle Bin


Measure Comparisons



(END OF REPORT)