

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



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: PrentaLux

Report Number: P981043

Luminaire Tested: PRLX-CYL3S-10-940-23L-SP-U-S-X-X-WHTE

Issue Date: 4/11/2025

Test Information

Test Method: LM-79-2024
Report Number: P981043
TEST IS SCALED FROM (FO44196.PSO)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/11/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: PentaLux
Catalog Number: PRLX-CYL3S-10-940-23L-SP-U-S-X-X-WHTE
Description: PentaLux 3-INCH CYLINDER, SPOT OPTIC
2300 LUMENS
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

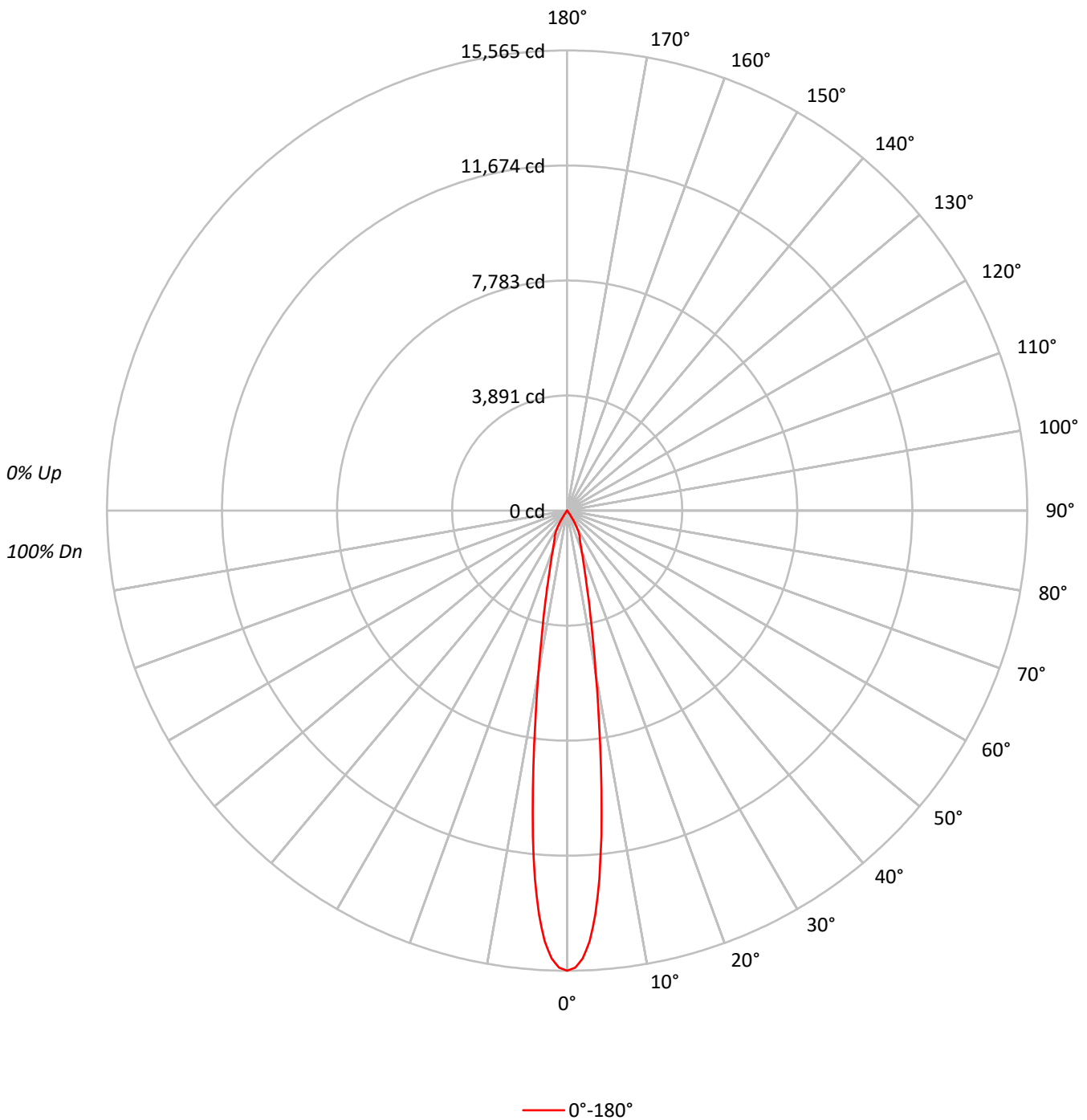
Lumens per Lamp: N/A
Luminaire Lumens: 2276.2 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Spacing Criteria (0/90/45): 0.28 / 0.28 / 0.29
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 22.5
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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	115	113	111	109	113	111	109	108	107	106	104	103	102	101	100	99	98	97
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	98	96	95	94
3	108	103	100	97	106	102	99	96	99	97	95	97	95	93	95	93	92	91
4	105	99	95	92	103	98	95	92	96	93	91	94	92	90	93	91	89	88
5	102	96	92	89	100	95	91	88	93	90	88	92	89	87	90	88	86	85
6	99	92	88	85	97	92	88	85	90	87	85	89	86	84	88	86	84	83
7	96	90	85	83	95	89	85	82	88	84	82	87	84	82	86	83	81	80
8	93	87	83	80	92	86	83	80	86	82	80	85	82	79	84	81	79	78
9	91	84	80	78	90	84	80	78	83	80	77	83	79	77	82	79	77	76
10	89	82	78	76	88	82	78	76	81	78	75	81	77	75	80	77	75	74

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	3413016
5°	2750862
10°	1236784
15°	571195
20°	328655
25°	241998
30°	159518
35°	34961
40°	5725
45°	1582
50°	887
55°	650
60°	658
65°	726
70°	769
75°	847
80°	1010
85°	1006

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1582 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	943.8	41.5
10°-20°	743.1	32.6
20°-30°	456.4	20.1
30°-40°	123.2	5.4
40°-50°	5.1	0.2
50°-60°	1.7	0.1
60°-70°	1.4	0.1
70°-80°	1.1	0.0
80°-90°	0.4	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2143.3	94.2
0°-40°	2266.5	99.6
0°-60°	2273.3	99.9
0°-90°	2276.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2276.2	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	15565	
5°	12497	944
15°	2516	743
25°	1000	456
35°	131	123
45°	5	5
55°	2	2
65°	1	1
75°	1	1
85°	0	0
90°	0	

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CANDELA DISTRIBUTION (FULL):

0°	
0°	15564.6
1°	15463.0
2°	15160.3
3°	14581.9
4°	13694.7
5°	12497.2
6°	11070.8
7°	9506.7
8°	8007.6
9°	6673.2
10°	5554.5
11°	4655.6
12°	3939.2
13°	3367.4
14°	2900.4
15°	2516.1
16°	2203.0
17°	1944.2
18°	1734.0
19°	1554.9
20°	1408.4
21°	1289.8
22°	1193.5
23°	1115.4
24°	1051.8
25°	1000.2
26°	953.3
27°	895.4
28°	821.9
29°	731.0
30°	630.0
31°	523.9
32°	415.2
33°	308.1
34°	211.7
35°	130.6
36°	74.0
37°	43.3
38°	32.9
39°	26.5
40°	20.0
41°	14.5
42°	9.8
43°	7.2
44°	6.0

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CANDELA DISTRIBUTION (continued):

	0°
45°	5.1
46°	4.4
47°	3.8
48°	3.2
49°	2.9
50°	2.6
51°	2.4
52°	2.2
53°	2.1
54°	1.8
55°	1.7
56°	1.7
57°	1.6
58°	1.5
59°	1.5
60°	1.5
61°	1.5
62°	1.5
63°	1.5
64°	1.5
65°	1.4
66°	1.4
67°	1.3
68°	1.3
69°	1.3
70°	1.2
71°	1.2
72°	1.1
73°	1.1
74°	1.0
75°	1.0
76°	0.9
77°	0.9
78°	0.9
79°	0.9
80°	0.8
81°	0.8
82°	0.8
83°	0.6
84°	0.5
85°	0.4
86°	0.2
87°	0.1
88°	0.0
89°	0.0



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CANDELA DISTRIBUTION (continued):

90° | $\frac{0^\circ}{0.0}$



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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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4H	2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.08
	8H	0.00	0.00	0.00	0.24	0.72	0.00	0.00	0.00	0.24	0.72
	12H	0.00	0.03	0.18	0.52	1.00	0.00	0.03	0.18	0.52	1.00
8H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.24	0.73	0.00	0.00	0.00	0.24	0.73
	8H	0.23	0.51	0.76	1.03	1.53	0.23	0.51	0.76	1.03	1.53
	12H	0.66	0.90	1.19	1.40	1.99	0.66	0.90	1.19	1.40	1.99
12H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.14	0.41	0.90	0.00	0.00	0.14	0.41	0.90
	8H	0.47	0.71	1.00	1.21	1.80	0.47	0.71	1.00	1.21	1.80