

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: P980172

Luminaire Tested: PRLX-242-940-LL4-F-U-S-BLAK-X

Issue Date: 4/3/2025

Test Information

Test Method: LM-79-2024
Report Number: P980172
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2502-353-27)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/3/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: PrentaLux
Catalog Number: PRLX-242-940-LL4-F-U-S-BLAK-X
Description: 3D PRINTED LUMINAIRE, INTEGRAL LED LIGHT ENGINE, BLACK 242 SHADE WITH FROSTED LENS
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

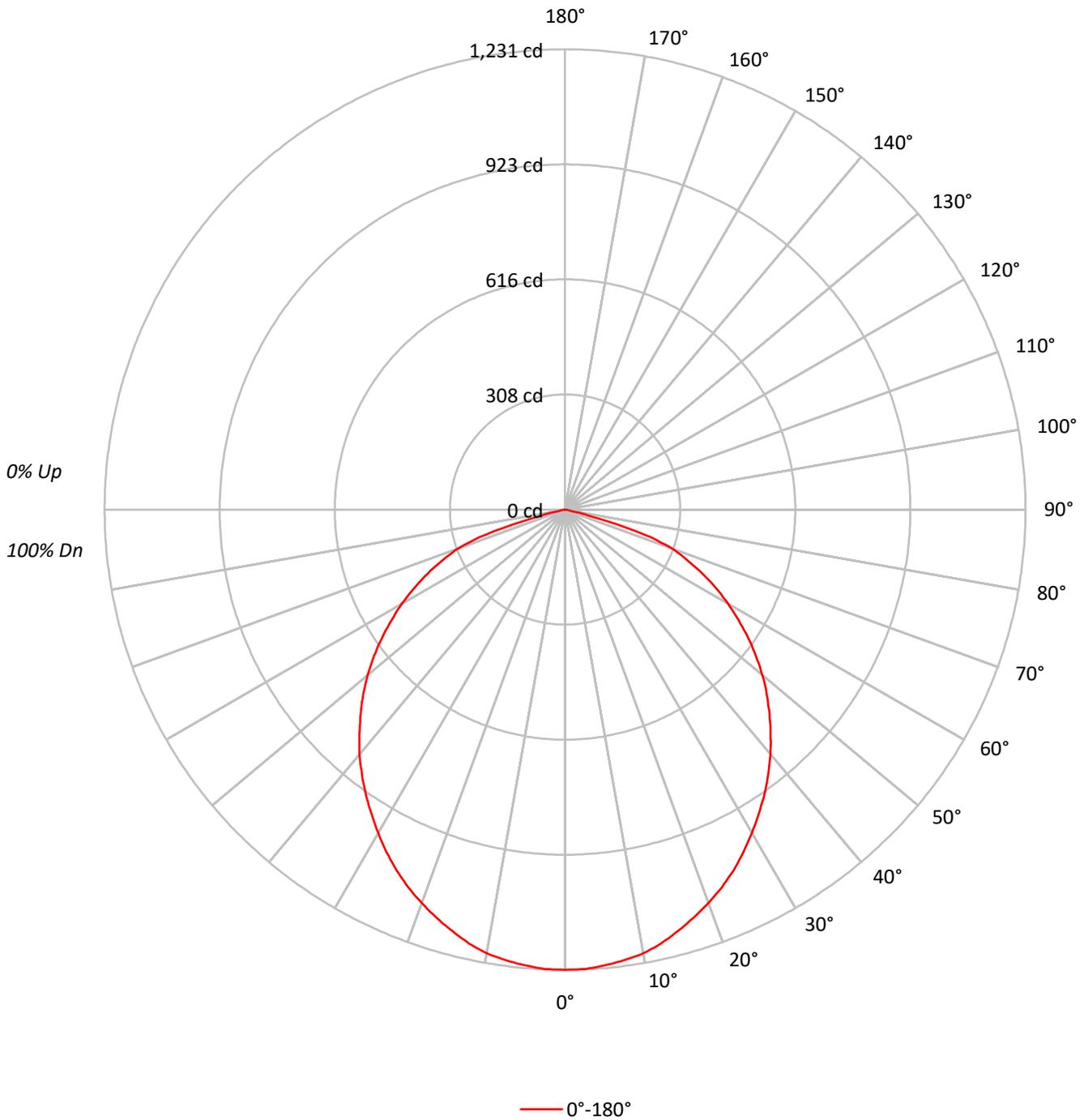
Lumens per Lamp: N/A
Luminaire Lumens: 3170.2 lumens
Efficiency: N/A
Efficacy: 154.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Circular (Dia: 1.75' x H: 0')
CIE Type: Direct

Input Watts (W): 20.5
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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55	53
5	77	65	56	50	75	64	56	50	62	55	49	60	53	48	58	52	48	46
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40
7	66	53	44	38	65	52	44	38	51	43	38	49	43	38	48	42	37	36
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	31	41	35	30	29
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	5509
5°	5498
10°	5477
15°	5406
20°	5334
25°	5260
30°	5161
35°	5077
40°	4992
45°	4890
50°	4795
55°	4661
60°	4502
65°	4294
70°	3976
75°	1560
80°	0
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4890 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.2	3.7
10°-20°	329.1	10.4
20°-30°	490.4	15.5
30°-40°	581.1	18.3
40°-50°	596.3	18.8
50°-60°	533.6	16.8
60°-70°	400.2	12.6
70°-80°	123.3	3.9
80°-90°	0.0	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°	935.7	29.5
0°-40°	1516.9	47.8
0°-60°	2646.7	83.5
0°-90°	3170.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3170.2	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	1231	
5°	1224	116
15°	1167	329
25°	1065	490
35°	929	581
45°	773	596
55°	597	534
65°	406	400
75°	90	123
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	1231.1
2.5°	1230.1
5°	1223.9
7.5°	1215.6
10°	1205.2
12.5°	1188.6
15°	1166.8
17.5°	1144.0
20°	1120.1
22.5°	1094.2
25°	1065.2
27.5°	1033.0
30°	998.8
32.5°	963.5
35°	929.3
37.5°	892.0
40°	854.6
42.5°	813.1
45°	772.7
47.5°	731.2
50°	688.7
52.5°	643.0
55°	597.4
57.5°	549.7
60°	503.0
62.5°	454.3
65°	405.5
67.5°	354.7
70°	303.9
72.5°	225.1
75°	90.2
77.5°	4.1
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	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	17.68	19.27	18.05	19.59	19.90	17.68	19.27	18.05	19.59	19.90
	3H	19.43	20.86	19.81	21.19	21.55	19.43	20.86	19.81	21.19	21.55
	4H	19.63	20.97	20.03	21.32	21.70	19.63	20.97	20.03	21.32	21.70
	6H	19.57	20.81	19.98	21.17	21.56	19.57	20.81	19.98	21.17	21.56
	8H	19.54	20.72	19.96	21.10	21.50	19.54	20.72	19.96	21.10	21.50
	12H	19.51	20.63	19.94	21.02	21.45	19.51	20.63	19.94	21.02	21.45
4H	2H	18.32	19.66	18.72	20.01	20.38	18.32	19.66	18.72	20.01	20.38
	3H	20.23	21.34	20.64	21.74	22.14	20.23	21.34	20.64	21.74	22.14
	4H	20.42	21.41	20.85	21.83	22.26	20.42	21.41	20.85	21.83	22.26
	6H	20.36	21.23	20.82	21.67	22.13	20.36	21.23	20.82	21.67	22.13
	8H	20.33	21.13	20.79	21.57	22.04	20.33	21.13	20.79	21.57	22.04
	12H	20.30	21.01	20.78	21.49	21.96	20.30	21.01	20.78	21.49	21.96
8H	4H	20.45	21.25	20.92	21.70	22.16	20.45	21.25	20.92	21.70	22.16
	6H	20.38	21.04	20.88	21.53	22.01	20.38	21.04	20.88	21.53	22.01
	8H	20.34	20.92	20.85	21.43	21.92	20.34	20.92	20.85	21.43	21.92
	12H	20.32	20.83	20.83	21.32	21.88	20.32	20.83	20.83	21.32	21.88
12H	4H	20.43	21.14	20.91	21.62	22.09	20.43	21.14	20.91	21.62	22.09
	6H	20.34	20.92	20.85	21.43	21.92	20.34	20.92	20.85	21.43	21.92
	8H	20.32	20.83	20.83	21.32	21.88	20.32	20.83	20.83	21.32	21.88