

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: NEO-RAY

Report Number: P1059431

Luminaire Tested: S123RDR-H1000D840-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059431
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1000D840-X4F0-XX-UDD-SVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

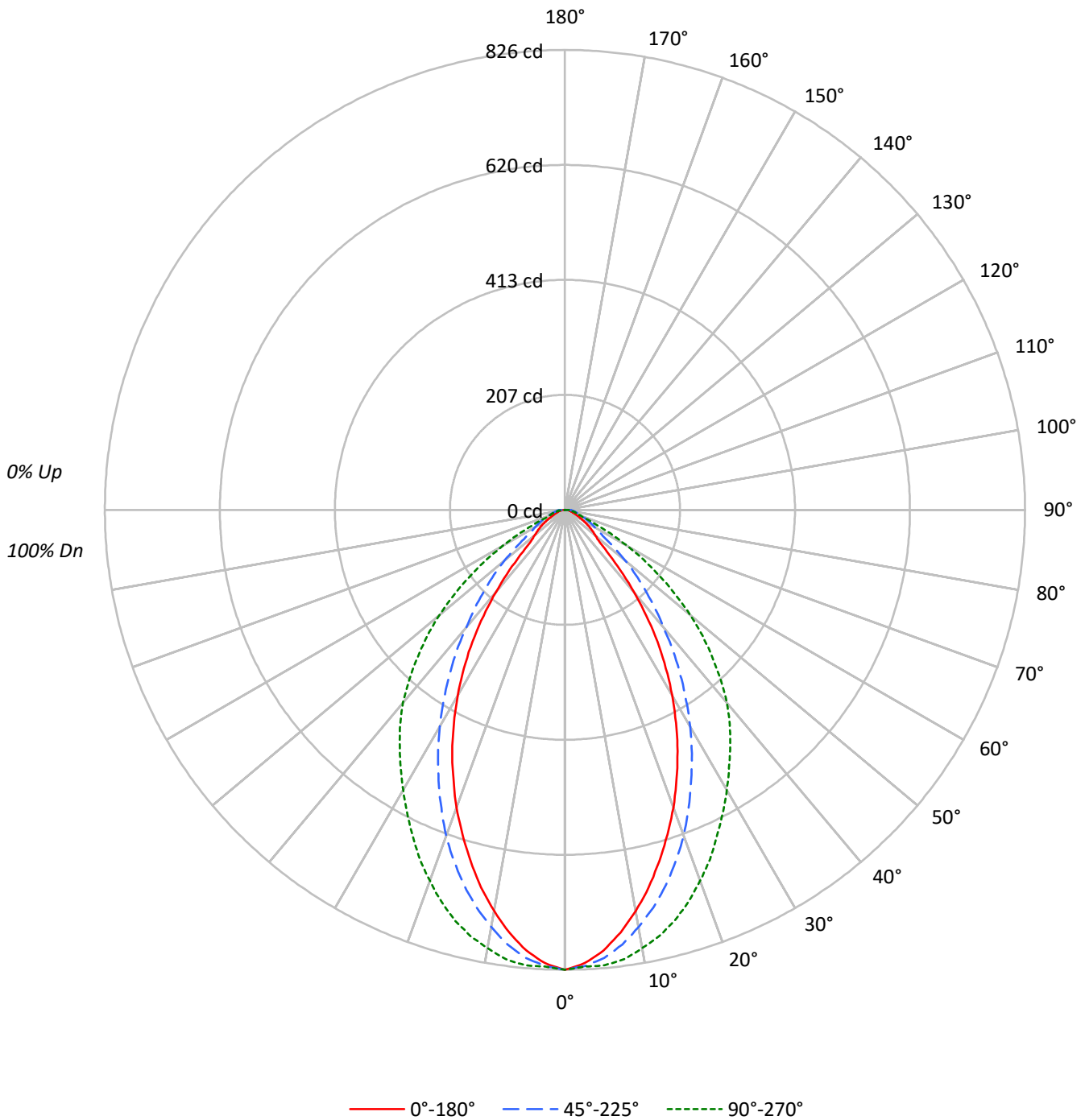
Lumens per Lamp: N/A
Luminaire Lumens: 1106.2 lumens
Efficiency: N/A
Efficacy: 35.5 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				71
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64				64
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58				58
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52				52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	58	51	46	69	58	51	46	57	50	46	56	50	46	54	49	45	44				44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9699	9699	9699
5°	9366	9523	9679
10°	8727	9073	9532
15°	7944	8488	9279
20°	7111	7790	8860
25°	6202	6952	8374
30°	5215	6099	7880
35°	4149	5168	7415
40°	2957	4214	6932
45°	1762	3384	6207
50°	1299	2578	5374
55°	1087	1752	4271
60°	878	1444	3001
65°	703	1239	1609
70°	580	1078	992
75°	549	1039	930
80°	568	1143	899
85°	808	1630	1132

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6207 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.9	6.9
10°-20°	197.1	17.8
20°-30°	251.4	22.7
30°-40°	236.5	21.4
40°-50°	169.9	15.4
50°-60°	97.4	8.8
60°-70°	44.6	4.0
70°-80°	22.4	2.0
80°-90°	10.9	1.0
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°	524.4	47.4
0°-40°	760.9	68.8
0°-60°	1028.3	93.0
0°-90°	1106.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1106.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	826	826	826	826	826	
5°	795	810	808	814	821	74
15°	654	676	698	736	763	183
25°	479	500	537	594	646	219
35°	289	310	360	442	517	179
45°	106	129	204	300	374	89
55°	53	54	86	158	209	48
65°	25	35	45	49	58	25
75°	12	24	23	20	20	13
85°	6	12	12	11	8	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	826.0	826.0	826.0	826.0	826.0
2.5°	815.1	827.2	819.9	819.9	821.1
5°	794.6	810.3	807.9	813.9	821.1
7.5°	765.7	782.6	787.4	801.9	813.9
10°	731.9	751.2	760.9	783.8	799.4
12.5°	694.5	716.2	731.9	760.9	783.8
15°	653.5	676.4	698.2	735.5	763.3
17.5°	611.3	634.2	662.0	705.4	737.9
20°	569.1	592.0	623.4	669.2	709.0
22.5°	523.3	546.2	580.0	631.8	680.1
25°	478.7	500.4	536.6	594.5	646.3
27.5°	431.7	453.4	493.2	555.9	613.7
30°	384.6	406.4	449.8	517.3	581.2
32.5°	337.6	358.1	405.1	479.9	548.6
35°	289.4	309.9	360.5	442.5	517.3
37.5°	240.0	260.5	319.5	408.8	485.9
40°	192.9	215.8	274.9	375.0	452.2
42.5°	147.1	171.2	238.7	338.8	413.6
45°	106.1	129.0	203.8	300.2	373.8
47.5°	80.8	92.8	172.4	261.7	335.2
50°	71.1	72.3	141.1	226.7	294.2
52.5°	61.5	62.7	109.7	192.9	250.8
55°	53.1	54.3	85.6	158.0	208.6
57.5°	44.6	47.0	69.9	125.4	167.6
60°	37.4	42.2	61.5	95.3	127.8
62.5°	30.1	38.6	53.1	69.9	91.6
65°	25.3	35.0	44.6	49.4	57.9
67.5°	20.5	32.6	37.4	35.0	35.0
70°	16.9	28.9	31.4	28.9	28.9
72.5°	14.5	27.7	26.5	24.1	24.1
75°	12.1	24.1	22.9	20.5	20.5
77.5°	10.9	20.5	19.3	18.1	16.9
80°	8.4	16.9	16.9	15.7	13.3
82.5°	7.2	14.5	14.5	13.3	10.9
85°	6.0	12.1	12.1	10.9	8.4
87.5°	4.8	10.9	10.9	9.6	6.0
90°	0.0	0.0	0.0	0.0	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	7.88	9.19	8.24	9.51	9.82	15.10	16.42	15.47	16.73	17.05
	3H	9.28	10.45	9.66	10.78	11.14	15.34	16.51	15.72	16.84	17.20
	4H	9.84	10.93	10.24	11.28	11.66	15.44	16.53	15.85	16.88	17.27
	6H	10.30	11.30	10.72	11.67	12.07	15.55	16.55	15.97	16.92	17.32
	8H	10.49	11.43	10.92	11.83	12.23	15.60	16.55	16.03	16.94	17.35
	12H	10.67	11.58	11.11	11.97	12.40	15.65	16.56	16.08	16.94	17.37
4H	2H	8.95	10.04	9.35	10.39	10.77	15.06	16.15	15.46	16.50	16.89
	3H	10.64	11.53	11.05	11.94	12.34	15.43	16.32	15.84	16.73	17.13
	4H	11.47	12.27	11.91	12.69	13.13	15.61	16.41	16.05	16.83	17.28
	6H	12.13	12.82	12.60	13.27	13.74	15.84	16.53	16.30	16.97	17.44
	8H	12.39	13.03	12.86	13.48	13.95	15.94	16.58	16.41	17.03	17.50
	12H	12.64	13.21	13.13	13.70	14.17	16.06	16.63	16.54	17.11	17.58
8H	4H	11.91	12.56	12.38	13.00	13.47	15.66	16.30	16.13	16.75	17.22
	6H	12.86	13.39	13.36	13.89	14.37	15.99	16.52	16.49	17.02	17.50
	8H	13.33	13.80	13.85	14.32	14.81	16.18	16.66	16.71	17.18	17.67
	12H	13.81	14.23	14.32	14.72	15.29	16.42	16.84	16.93	17.33	17.91
12H	4H	11.97	12.54	12.46	13.02	13.50	15.65	16.22	16.14	16.71	17.18
	6H	13.01	13.49	13.53	14.00	14.50	16.02	16.50	16.54	17.01	17.50
	8H	13.60	14.03	14.12	14.52	15.09	16.28	16.70	16.80	17.20	17.77