

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: P1059440

Luminaire Tested: S123RDR-H1000D850-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059440
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-H1000D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

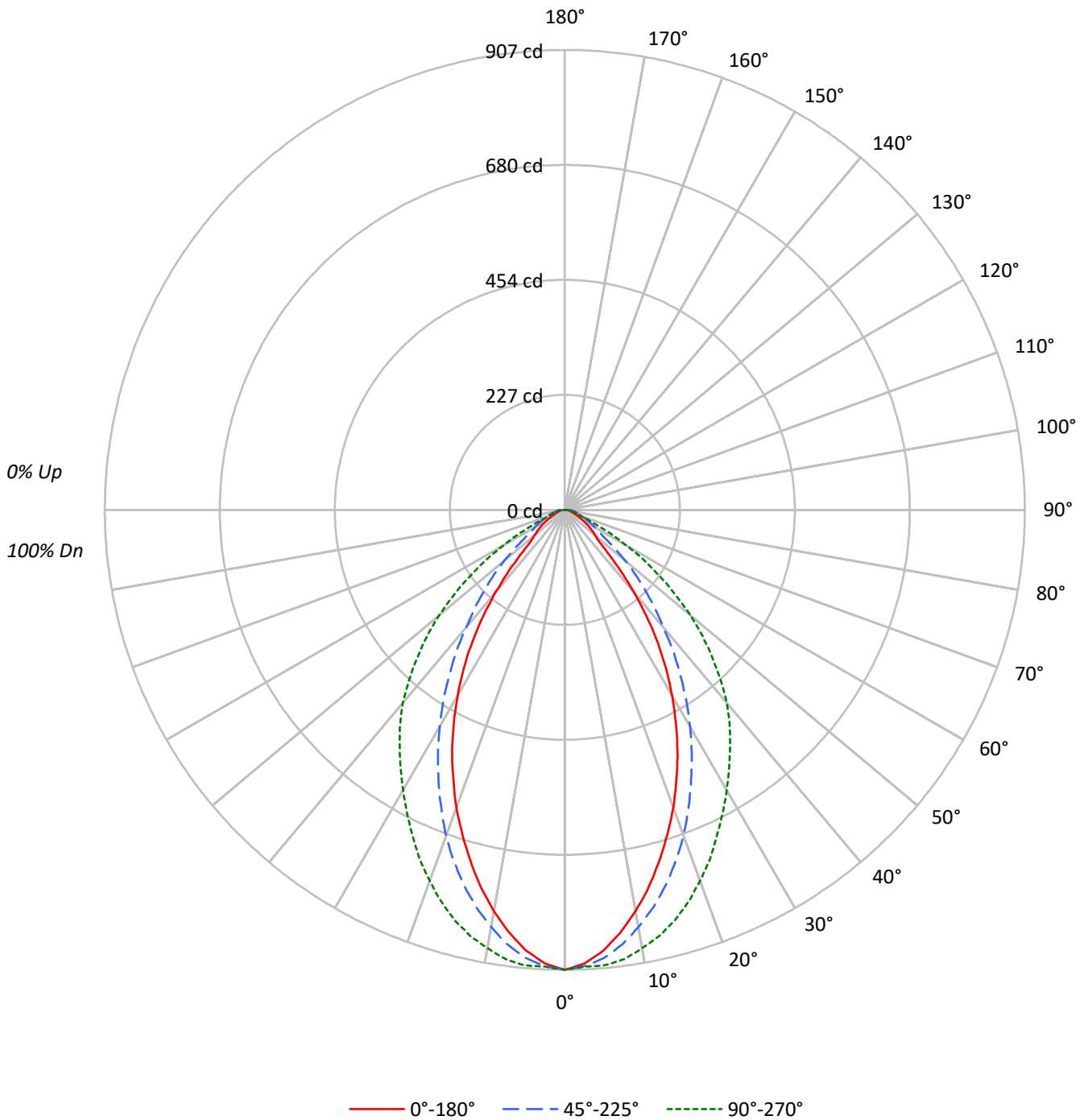
Lumens per Lamp: N/A
Luminaire Lumens: 1214.8 lumens
Efficiency: N/A
Efficacy: 38.9 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1059440

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10650	10650	10650
5°	10286	10458	10630
10°	9584	9962	10468
15°	8725	9321	10190
20°	7810	8555	9729
25°	6811	7635	9195
30°	5727	6697	8653
35°	4556	5675	8144
40°	3248	4628	7612
45°	1935	3716	6817
50°	1427	2830	5902
55°	1194	1924	4690
60°	963	1585	3297
65°	772	1361	1767
70°	635	1181	1092
75°	599	1143	1021
80°	629	1251	987
85°	889	1778	1253

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6817 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.3	6.9
10°-20°	216.5	17.8
20°-30°	276.1	22.7
30°-40°	259.8	21.4
40°-50°	186.6	15.4
50°-60°	107.0	8.8
60°-70°	48.9	4.0
70°-80°	24.6	2.0
80°-90°	12.0	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°	575.9	47.4
0°-40°	835.6	68.8
0°-60°	1129.3	93.0
0°-90°	1214.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1214.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	907	907	907	907	907	
5°	873	890	887	894	902	81
15°	718	743	767	808	838	201
25°	526	550	589	653	710	240
35°	318	340	396	486	568	197
45°	116	142	224	330	410	98
55°	58	60	94	174	229	52
65°	28	38	49	54	64	28
75°	13	26	25	22	22	14
85°	7	13	13	12	9	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	907.0	907.0	907.0	907.0	907.0
2.5°	895.1	908.4	900.4	900.4	901.8
5°	872.6	889.8	887.2	893.8	901.8
7.5°	840.8	859.4	864.7	880.6	893.8
10°	803.8	825.0	835.5	860.7	877.9
12.5°	762.7	786.6	803.8	835.5	860.7
15°	717.7	742.9	766.7	807.7	838.2
17.5°	671.3	696.5	727.0	774.6	810.4
20°	625.0	650.2	684.6	734.9	778.6
22.5°	574.7	599.8	636.9	693.9	746.8
25°	525.7	549.5	589.3	652.8	709.7
27.5°	474.0	497.9	541.6	610.4	674.0
30°	422.4	446.2	493.9	568.1	638.2
32.5°	370.8	393.3	444.9	527.0	602.5
35°	317.8	340.3	395.9	486.0	568.1
37.5°	263.5	286.0	350.9	448.9	533.6
40°	211.9	237.0	301.9	411.8	496.6
42.5°	161.5	188.0	262.2	372.1	454.2
45°	116.5	141.7	223.8	329.7	410.5
47.5°	88.7	102.0	189.4	287.3	368.1
50°	78.1	79.4	154.9	248.9	323.1
52.5°	67.5	68.9	120.5	211.9	275.4
55°	58.3	59.6	94.0	173.5	229.1
57.5°	49.0	51.6	76.8	137.7	184.1
60°	41.0	46.3	67.5	104.6	140.4
62.5°	33.1	42.4	58.3	76.8	100.6
65°	27.8	38.4	49.0	54.3	63.6
67.5°	22.5	35.8	41.0	38.4	38.4
70°	18.5	31.8	34.4	31.8	31.8
72.5°	15.9	30.5	29.1	26.5	26.5
75°	13.2	26.5	25.2	22.5	22.5
77.5°	11.9	22.5	21.2	19.9	18.5
80°	9.3	18.5	18.5	17.2	14.6
82.5°	7.9	15.9	15.9	14.6	11.9
85°	6.6	13.2	13.2	11.9	9.3
87.5°	5.3	11.9	11.9	10.6	6.6
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	8.20	9.52	8.56	9.83	10.14	15.43	16.74	15.79	17.06	17.37
	3H	9.60	10.77	9.98	11.10	11.47	15.66	16.83	16.04	17.16	17.53
	4H	10.16	11.25	10.57	11.60	11.99	15.77	16.86	16.17	17.21	17.59
	6H	10.62	11.62	11.04	11.99	12.39	15.88	16.88	16.29	17.25	17.64
	8H	10.81	11.76	11.24	12.15	12.55	15.92	16.87	16.35	17.26	17.67
	12H	11.00	11.90	11.43	12.29	12.72	15.98	16.88	16.41	17.27	17.70
4H	2H	9.27	10.36	9.68	10.72	11.10	15.39	16.48	15.79	16.83	17.21
	3H	10.97	11.86	11.38	12.26	12.67	15.76	16.65	16.17	17.05	17.46
	4H	11.80	12.60	12.23	13.02	13.46	15.94	16.74	16.37	17.16	17.60
	6H	12.46	13.15	12.92	13.59	14.06	16.16	16.85	16.63	17.30	17.77
	8H	12.71	13.36	13.18	13.80	14.28	16.26	16.91	16.73	17.36	17.83
	12H	12.97	13.54	13.45	14.02	14.49	16.38	16.95	16.87	17.43	17.91
8H	4H	12.24	12.88	12.70	13.33	13.80	15.98	16.63	16.45	17.08	17.55
	6H	13.19	13.72	13.69	14.21	14.69	16.32	16.85	16.82	17.34	17.82
	8H	13.65	14.13	14.17	14.64	15.13	16.51	16.98	17.03	17.50	17.99
	12H	14.13	14.55	14.64	15.04	15.61	16.74	17.16	17.26	17.66	18.23
12H	4H	12.30	12.87	12.78	13.35	13.82	15.98	16.55	16.46	17.03	17.51
	6H	13.33	13.81	13.85	14.33	14.82	16.34	16.82	16.87	17.34	17.83
	8H	13.93	14.35	14.44	14.84	15.41	16.60	17.03	17.12	17.52	18.09