

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: NEO-RAY

Report Number: P1059036

Luminaire Tested: S123RDRP-S1000D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059036  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S1000D850-X4F0-XX-UDD-SVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

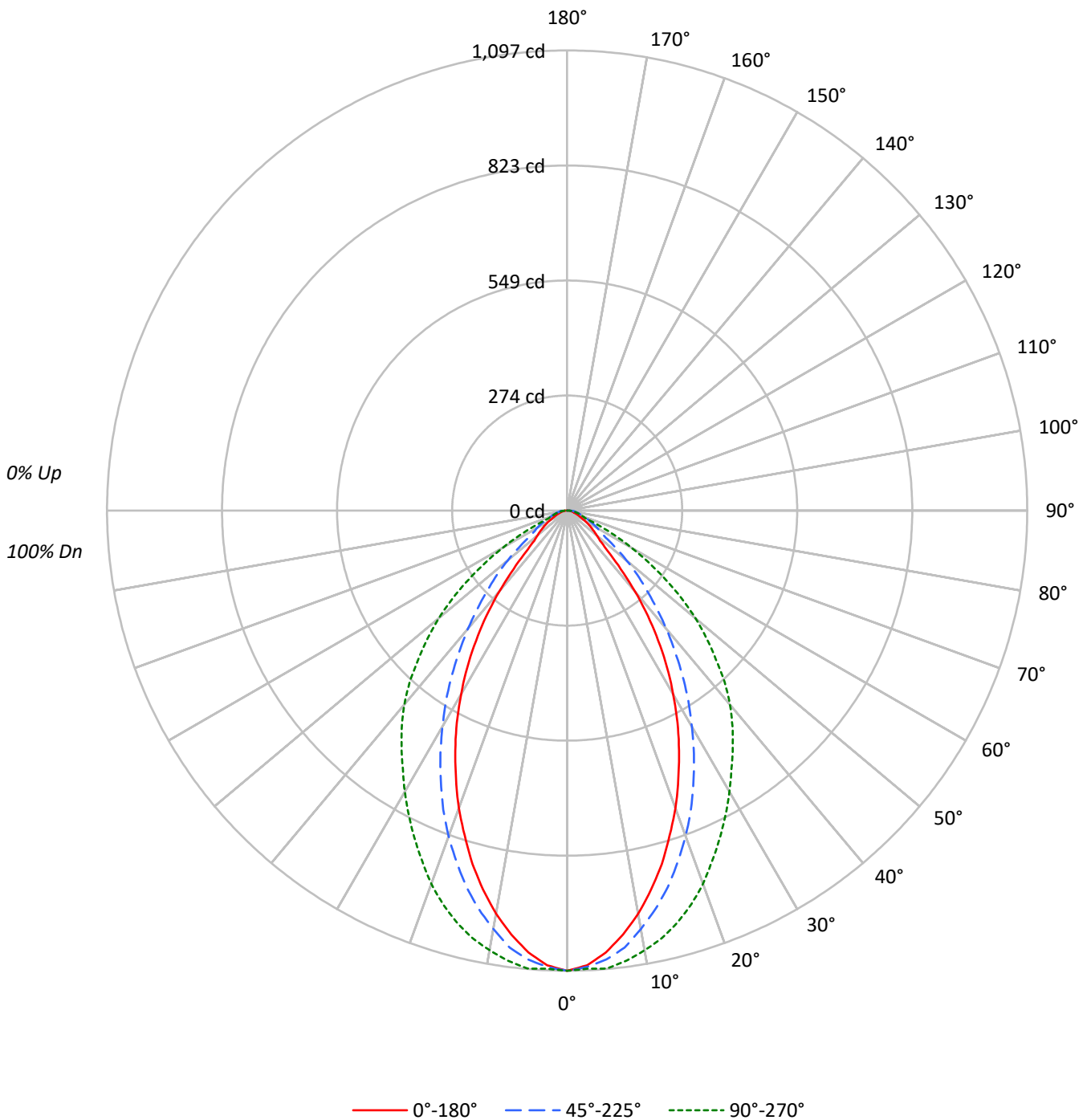
Lumens per Lamp: N/A  
Luminaire Lumens: 1472.8 lumens  
Efficiency: N/A  
Efficacy: 42.1 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	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	102	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	90	81	74	68	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	60	69	64	60	68	63	59	58																												
6	79	68	61	55	78	67	60	55	66	59	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	55	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	49	43	39	49	43	39	48	43	39	37																												

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	12883	12883	12883
5°	12466	12660	12917
10°	11635	12074	12691
15°	10604	11283	12360
20°	9435	10320	11836
25°	8175	9235	11159
30°	6855	8057	10496
35°	5431	6858	9867
40°	3844	5641	9255
45°	2263	4459	8328
50°	1693	3387	7294
55°	1423	2289	5859
60°	1153	1952	4162
65°	909	1667	2195
70°	797	1449	1356
75°	744	1361	1298
80°	737	1474	1292
85°	916	2210	1657

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8328 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.0	6.9
10°-20°	262.4	17.8
20°-30°	334.2	22.7
30°-40°	314.4	21.3
40°-50°	226.4	15.4
50°-60°	130.7	8.9
60°-70°	59.8	4.1
70°-80°	29.8	2.0
80°-90°	14.1	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°	697.6	47.4
0°-40°	1011.9	68.7
0°-60°	1369.1	93.0
0°-90°	1472.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1472.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1097	1097	1097	1097	1097	
5°	1058	1075	1074	1085	1096	98
15°	872	904	928	980	1017	243
25°	631	664	713	792	861	289
35°	379	412	478	589	688	235
45°	136	170	268	403	502	115
55°	70	72	112	213	286	62
65°	33	46	60	67	79	34
75°	16	31	30	29	29	17
85°	7	15	16	15	12	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1097.1	1097.1	1097.1	1097.1	1097.1
2.5°	1084.9	1098.5	1088.9	1090.3	1093.0
5°	1057.6	1075.3	1074.0	1084.9	1095.8
7.5°	1019.4	1039.9	1050.8	1067.1	1082.1
10°	975.8	999.0	1012.6	1042.6	1064.4
12.5°	925.4	955.4	973.1	1012.6	1044.0
15°	872.3	903.6	928.1	979.9	1016.7
17.5°	812.3	846.4	877.7	939.0	984.0
20°	755.0	787.8	825.9	892.7	947.2
22.5°	692.3	727.8	771.4	842.3	903.6
25°	631.0	663.7	712.8	791.8	861.3
27.5°	569.7	602.4	654.2	741.4	817.7
30°	505.6	539.7	594.2	691.0	774.1
32.5°	442.9	475.6	537.0	641.9	729.1
35°	378.9	411.6	478.4	588.8	688.3
37.5°	316.2	350.3	421.1	545.2	647.4
40°	250.8	287.6	368.0	500.2	603.8
42.5°	189.4	229.0	314.8	453.8	556.1
45°	136.3	170.4	268.5	403.4	501.5
47.5°	106.3	124.0	226.2	351.6	451.1
50°	92.7	95.4	185.4	303.9	399.3
52.5°	80.4	83.1	145.8	258.9	344.8
55°	69.5	72.2	111.8	212.6	286.2
57.5°	58.6	62.7	92.7	169.0	230.3
60°	49.1	54.5	83.1	129.5	177.2
62.5°	39.5	49.1	70.9	95.4	126.7
65°	32.7	46.3	60.0	66.8	79.0
67.5°	27.3	42.2	50.4	47.7	46.3
70°	23.2	38.2	42.2	38.2	39.5
72.5°	19.1	35.4	35.4	32.7	32.7
75°	16.4	31.3	30.0	28.6	28.6
77.5°	13.6	27.3	25.9	24.5	23.2
80°	10.9	21.8	21.8	20.4	19.1
82.5°	9.5	17.7	17.7	17.7	15.0
85°	6.8	15.0	16.4	15.0	12.3
87.5°	5.5	13.6	13.6	12.3	8.2
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	8.85	10.17	9.22	10.48	10.80	16.21	17.53	16.58	17.85	18.16
	3H	10.24	11.41	10.62	11.74	12.11	16.44	17.61	16.82	17.94	18.31
	4H	10.79	11.88	11.20	12.24	12.62	16.56	17.65	16.96	18.00	18.38
	6H	11.23	12.23	11.64	12.60	12.99	16.67	17.68	17.09	18.05	18.44
	8H	11.40	12.35	11.83	12.74	13.15	16.72	17.67	17.15	18.07	18.47
	12H	11.56	12.47	11.99	12.85	13.28	16.78	17.69	17.22	18.08	18.51
4H	2H	9.95	11.04	10.35	11.39	11.78	16.17	17.26	16.57	17.61	18.00
	3H	11.61	12.51	12.03	12.91	13.31	16.53	17.43	16.94	17.83	18.23
	4H	12.42	13.22	12.86	13.64	14.09	16.73	17.53	17.16	17.95	18.39
	6H	13.06	13.75	13.52	14.20	14.66	16.96	17.65	17.42	18.09	18.56
	8H	13.29	13.94	13.76	14.39	14.86	17.06	17.71	17.53	18.15	18.62
	12H	13.51	14.08	13.99	14.56	15.03	17.19	17.76	17.67	18.24	18.72
8H	4H	12.87	13.51	13.33	13.96	14.43	16.77	17.41	17.24	17.86	18.33
	6H	13.78	14.31	14.28	14.80	15.28	17.09	17.62	17.60	18.12	18.60
	8H	14.19	14.67	14.72	15.19	15.68	17.28	17.76	17.80	18.28	18.77
	12H	14.61	15.03	15.13	15.53	16.10	17.53	17.96	18.05	18.45	19.02
12H	4H	12.92	13.49	13.41	13.98	14.45	16.76	17.33	17.24	17.81	18.28
	6H	13.91	14.39	14.43	14.90	15.39	17.11	17.59	17.63	18.10	18.59
	8H	14.45	14.87	14.96	15.37	15.94	17.37	17.79	17.88	18.28	18.85