

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: P1059038

Luminaire Tested: S123RDRP-S1000D850-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059038  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S1000D850-X4F0-XX-UDD-WVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

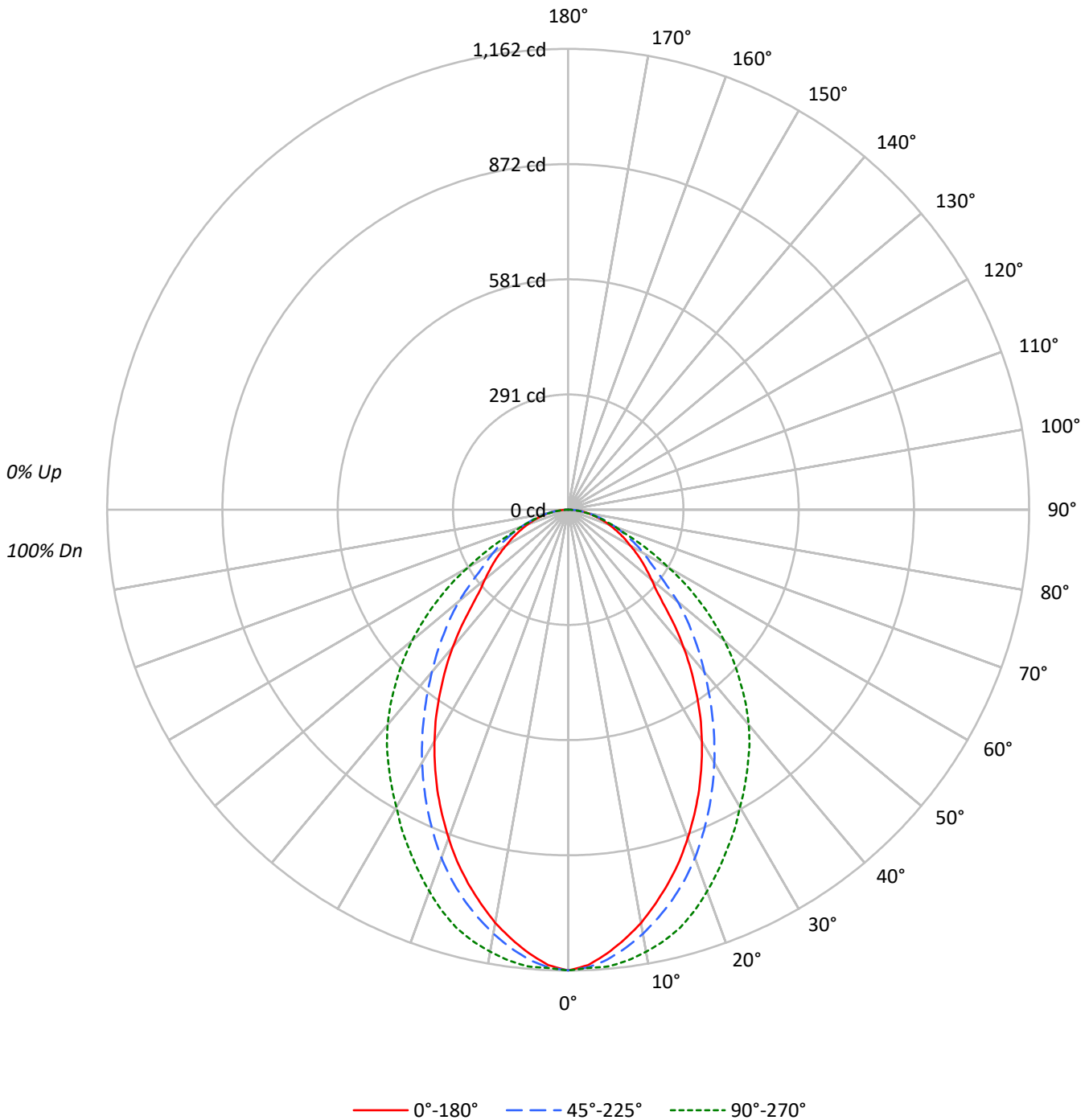
Lumens per Lamp: N/A  
Luminaire Lumens: 2098.5 lumens  
Efficiency: N/A  
Efficacy: 60.0 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89					87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77					75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67					65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59					57				
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53					51				
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47					45				
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43					41				
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39					37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35					34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33					31				

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

	0°	45°	90°
0°	13641	13641	13641
5°	13244	13421	13630
10°	12618	12942	13495
15°	11854	12368	13262
20°	11012	11675	12798
25°	10111	10852	12263
30°	9140	9990	11745
35°	8063	9078	11304
40°	6932	8184	10856
45°	5699	7373	10178
50°	5000	6567	9379
55°	4629	5603	8310
60°	4253	5150	6876
65°	3973	4729	5413
70°	3742	4302	4302
75°	3521	3956	3707
80°	3313	3591	3131
85°	3126	3489	2385

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10178 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.4	5.1
10°-20°	288.0	13.7
20°-30°	390.4	18.6
30°-40°	408.2	19.5
40°-50°	354.1	16.9
50°-60°	263.4	12.6
60°-70°	169.0	8.1
70°-80°	90.6	4.3
80°-90°	27.4	1.3
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°	785.8	37.4
0°-40°	1194.1	56.9
0°-60°	1811.5	86.3
0°-90°	2098.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2098.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1162	1162	1162	1162	1162	
5°	1124	1143	1139	1147	1156	105
15°	975	998	1017	1058	1091	273
25°	780	805	838	893	946	358
35°	562	590	633	714	789	351
45°	343	369	444	539	613	270
55°	226	232	274	351	406	202
65°	143	155	170	181	195	142
75°	78	90	87	83	82	82
85°	23	29	26	22	18	26
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1161.7	1161.7	1161.7	1161.7	1161.7
2.5°	1149.5	1165.8	1154.9	1154.9	1156.3
5°	1123.6	1142.7	1138.6	1146.7	1156.3
7.5°	1092.3	1112.7	1114.0	1133.1	1146.7
10°	1058.2	1078.6	1085.4	1112.7	1131.8
12.5°	1017.4	1040.5	1052.8	1086.8	1114.0
15°	975.1	998.3	1017.4	1058.2	1090.9
17.5°	930.2	953.3	977.9	1024.2	1059.6
20°	881.2	905.7	934.3	980.6	1024.2
22.5°	830.8	856.6	886.6	937.0	986.0
25°	780.4	804.9	837.6	893.4	946.5
27.5°	727.3	753.1	787.2	848.5	908.4
30°	674.1	700.0	736.8	802.2	866.2
32.5°	619.7	645.5	685.0	758.6	828.0
35°	562.5	589.7	633.3	713.6	788.6
37.5°	508.0	533.9	582.9	671.4	750.4
40°	452.2	479.4	533.9	629.2	708.2
42.5°	397.7	424.9	488.9	584.3	661.9
45°	343.2	369.1	444.0	539.3	612.9
47.5°	301.0	320.1	401.8	491.7	565.2
50°	273.7	280.6	359.5	445.3	513.4
52.5°	249.2	254.7	313.2	399.0	460.3
55°	226.1	231.5	273.7	351.4	405.9
57.5°	202.9	209.7	243.8	302.3	351.4
60°	181.1	189.3	219.3	258.8	292.8
62.5°	162.1	171.6	194.8	219.3	242.4
65°	143.0	155.3	170.2	181.1	194.8
67.5°	125.3	138.9	147.1	149.8	151.2
70°	109.0	122.6	125.3	125.3	125.3
72.5°	92.6	107.6	104.9	103.5	102.1
75°	77.6	89.9	87.2	83.1	81.7
77.5°	62.6	73.5	69.5	66.7	62.6
80°	49.0	57.2	53.1	50.4	46.3
82.5°	36.8	42.2	38.1	35.4	31.3
85°	23.2	28.6	25.9	21.8	17.7
87.5°	12.3	16.3	13.6	12.3	6.8
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	15.86	17.35	16.23	17.66	17.97	18.62	20.10	18.99	20.42	20.73
	3H	17.57	18.90	17.95	19.23	19.59	19.64	20.97	20.02	21.30	21.66
	4H	18.24	19.48	18.64	19.83	20.21	20.01	21.25	20.41	21.60	21.98
	6H	18.73	19.88	19.15	20.25	20.64	20.26	21.41	20.67	21.78	22.17
	8H	18.91	20.01	19.34	20.40	20.80	20.33	21.43	20.76	21.82	22.22
	12H	19.04	20.09	19.47	20.47	20.90	20.37	21.41	20.80	21.80	22.23
4H	2H	16.64	17.88	17.04	18.23	18.61	18.89	20.14	19.29	20.49	20.87
	3H	18.57	19.60	18.98	20.00	20.40	20.15	21.18	20.56	21.58	21.98
	4H	19.38	20.31	19.81	20.72	21.16	20.63	21.56	21.07	21.98	22.42
	6H	20.02	20.82	20.47	21.27	21.73	21.01	21.82	21.47	22.26	22.73
	8H	20.24	21.00	20.71	21.44	21.91	21.12	21.88	21.59	22.32	22.79
	12H	20.42	21.09	20.90	21.57	22.04	21.20	21.87	21.68	22.35	22.82
8H	4H	19.70	20.45	20.16	20.90	21.36	20.82	21.58	21.29	22.02	22.49
	6H	20.49	21.11	20.99	21.60	22.08	21.31	21.94	21.81	22.43	22.91
	8H	20.82	21.38	21.33	21.89	22.37	21.49	22.05	22.00	22.56	23.05
	12H	21.09	21.59	21.60	22.08	22.65	21.62	22.12	22.13	22.61	23.17
12H	4H	19.72	20.39	20.20	20.87	21.34	20.84	21.51	21.32	21.99	22.46
	6H	20.54	21.10	21.06	21.61	22.10	21.35	21.91	21.86	22.42	22.91
	8H	20.94	21.43	21.45	21.92	22.49	21.58	22.07	22.09	22.57	23.13