

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: P1059038

Luminaire Tested: S123RDR-S1000D850-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
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: S123RDR-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: -

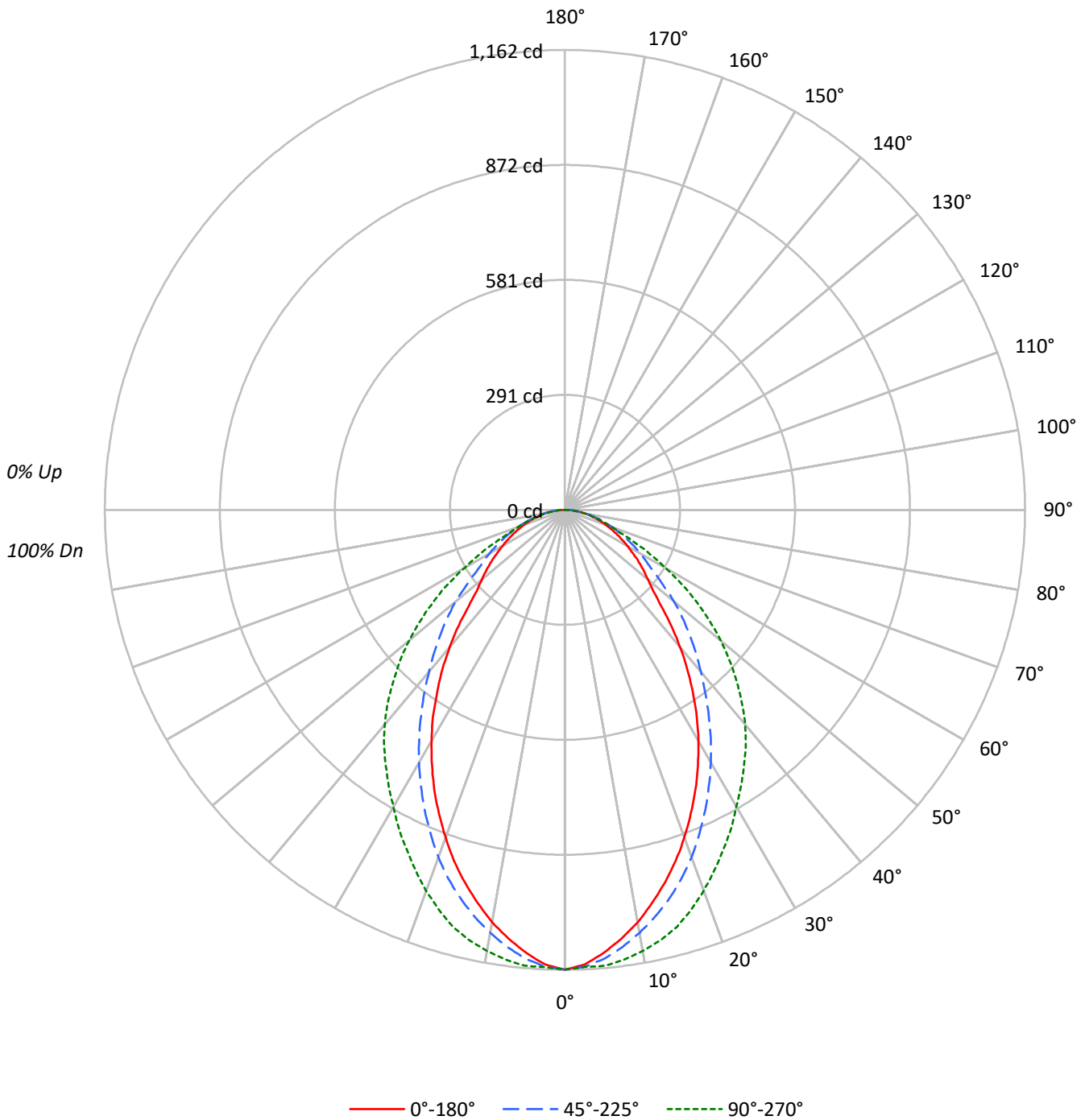
**Summary**

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 (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										
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																				
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

(END OF REPORT)