

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: P1059026

Luminaire Tested: S123RDRP-S1000D840-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059026  
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: S123RDRP-S1000D840-X4F0-XX-UDD-SVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

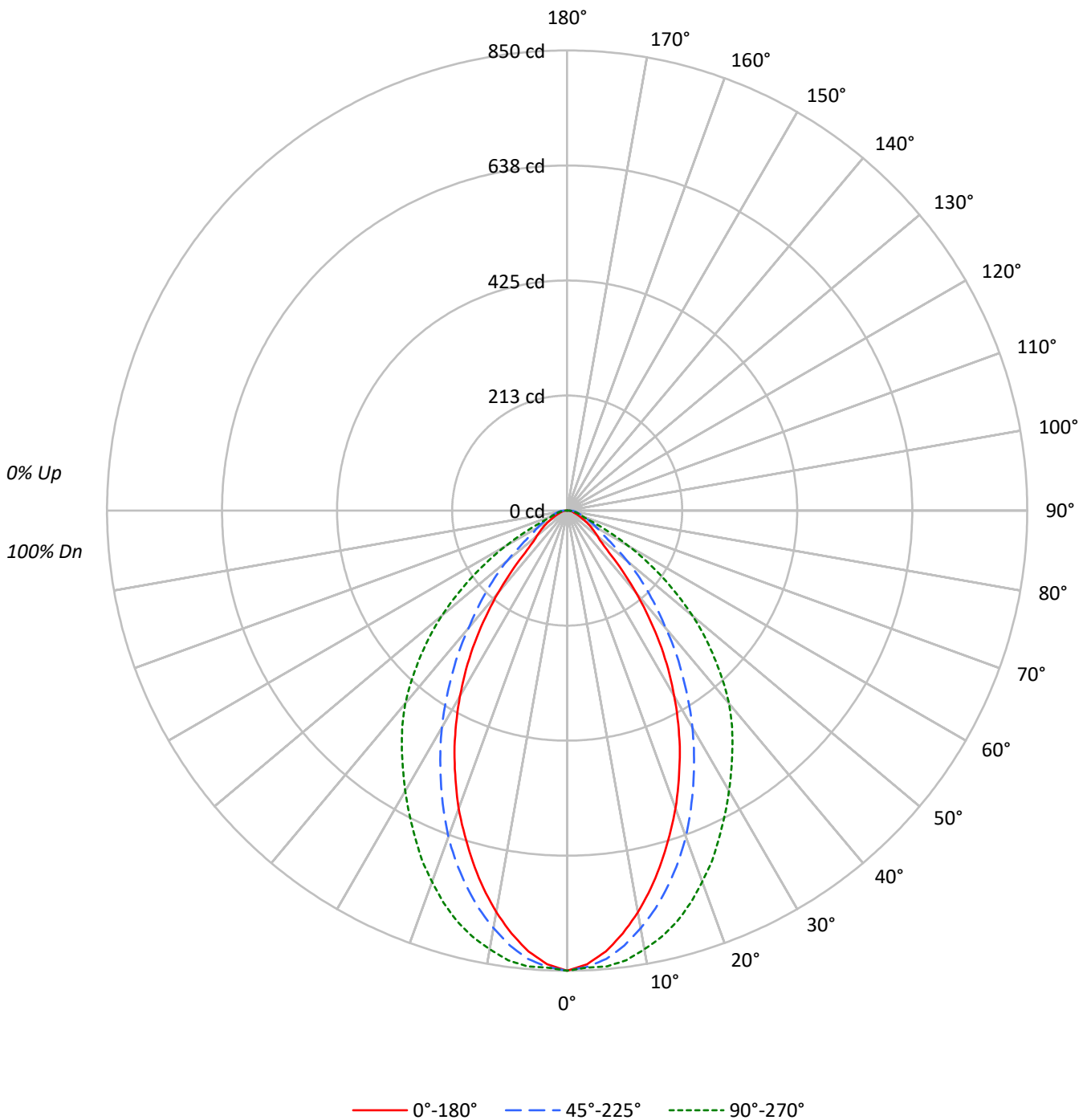
Lumens per Lamp: N/A  
Luminaire Lumens: 1138.3 lumens  
Efficiency: N/A  
Efficacy: 32.5 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 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													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°	9980	9980	9980
5°	9638	9799	9960
10°	8980	9335	9808
15°	8175	8733	9548
20°	7318	8016	9117
25°	6382	7153	8616
30°	5367	6275	8108
35°	4269	5318	7630
40°	3043	4336	7132
45°	1813	3482	6387
50°	1337	2653	5530
55°	1118	1804	4395
60°	904	1487	3088
65°	725	1275	1656
70°	597	1109	1023
75°	563	1071	957
80°	588	1177	920
85°	835	1671	1172

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6387 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.1	6.9
10°-20°	202.8	17.8
20°-30°	258.7	22.7
30°-40°	243.4	21.4
40°-50°	174.9	15.4
50°-60°	100.3	8.8
60°-70°	45.9	4.0
70°-80°	23.0	2.0
80°-90°	11.2	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°	539.6	47.4
0°-40°	783.0	68.8
0°-60°	1058.1	93.0
0°-90°	1138.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1138.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	850	850	850	850	850	
5°	818	834	831	838	845	76
15°	672	696	718	757	785	188
25°	493	515	552	612	665	225
35°	298	319	371	455	532	184
45°	109	133	210	309	385	91
55°	55	56	88	162	215	49
65°	26	36	46	51	60	26
75°	12	25	24	21	21	14
85°	6	12	12	11	9	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	849.9	849.9	849.9	849.9	849.9
2.5°	838.8	851.2	843.7	843.7	845.0
5°	817.7	833.8	831.3	837.5	845.0
7.5°	787.9	805.3	810.2	825.1	837.5
10°	753.1	773.0	782.9	806.5	822.6
12.5°	714.7	737.0	753.1	782.9	806.5
15°	672.5	696.1	718.4	756.9	785.4
17.5°	629.1	652.6	681.2	725.8	759.3
20°	585.6	609.2	641.5	688.6	729.6
22.5°	538.5	562.1	596.8	650.2	699.8
25°	492.6	514.9	552.1	611.7	665.0
27.5°	444.2	466.5	507.5	572.0	631.5
30°	395.8	418.1	462.8	532.3	598.0
32.5°	347.4	368.5	416.9	493.8	564.5
35°	297.8	318.9	371.0	455.4	532.3
37.5°	246.9	268.0	328.8	420.6	500.0
40°	198.5	222.1	282.9	385.9	465.3
42.5°	151.4	176.2	245.7	348.7	425.6
45°	109.2	132.8	209.7	308.9	384.6
47.5°	83.1	95.5	177.4	269.2	344.9
50°	73.2	74.4	145.2	233.3	302.7
52.5°	63.3	64.5	112.9	198.5	258.1
55°	54.6	55.8	88.1	162.5	214.7
57.5°	45.9	48.4	72.0	129.0	172.5
60°	38.5	43.4	63.3	98.0	131.5
62.5°	31.0	39.7	54.6	72.0	94.3
65°	26.1	36.0	45.9	50.9	59.6
67.5°	21.1	33.5	38.5	36.0	36.0
70°	17.4	29.8	32.3	29.8	29.8
72.5°	14.9	28.5	27.3	24.8	24.8
75°	12.4	24.8	23.6	21.1	21.1
77.5°	11.2	21.1	19.9	18.6	17.4
80°	8.7	17.4	17.4	16.1	13.6
82.5°	7.4	14.9	14.9	13.6	11.2
85°	6.2	12.4	12.4	11.2	8.7
87.5°	5.0	11.2	11.2	9.9	6.2
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	7.98	9.30	8.34	9.61	9.92	15.20	16.52	15.56	16.83	17.15
	3H	9.38	10.55	9.76	10.88	11.24	15.44	16.60	15.82	16.93	17.30
	4H	9.94	11.03	10.34	11.38	11.76	15.54	16.63	15.95	16.98	17.37
	6H	10.40	11.40	10.82	11.77	12.17	15.65	16.65	16.06	17.02	17.42
	8H	10.59	11.54	11.02	11.93	12.33	15.70	16.65	16.13	17.04	17.44
	12H	10.78	11.68	11.21	12.07	12.50	15.75	16.66	16.18	17.04	17.47
4H	2H	9.05	10.14	9.45	10.49	10.88	15.16	16.25	15.56	16.60	16.98
	3H	10.74	11.63	11.15	12.04	12.44	15.53	16.42	15.94	16.83	17.23
	4H	11.57	12.37	12.01	12.79	13.24	15.71	16.51	16.15	16.93	17.37
	6H	12.23	12.93	12.70	13.37	13.84	15.94	16.63	16.40	17.07	17.54
	8H	12.49	13.13	12.96	13.58	14.05	16.04	16.68	16.50	17.13	17.60
	12H	12.74	13.31	13.23	13.80	14.27	16.15	16.72	16.64	17.21	17.68
8H	4H	12.01	12.66	12.48	13.10	13.57	15.76	16.40	16.23	16.85	17.32
	6H	12.96	13.49	13.47	13.99	14.47	16.09	16.62	16.59	17.12	17.60
	8H	13.43	13.91	13.95	14.42	14.91	16.28	16.76	16.80	17.27	17.76
	12H	13.91	14.33	14.42	14.82	15.39	16.51	16.94	17.03	17.43	18.00
12H	4H	12.07	12.64	12.56	13.12	13.60	15.75	16.32	16.24	16.81	17.28
	6H	13.11	13.59	13.63	14.10	14.60	16.12	16.59	16.64	17.11	17.60
	8H	13.70	14.13	14.22	14.62	15.19	16.38	16.80	16.89	17.29	17.86