

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: P1059025

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059025  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)  
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-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

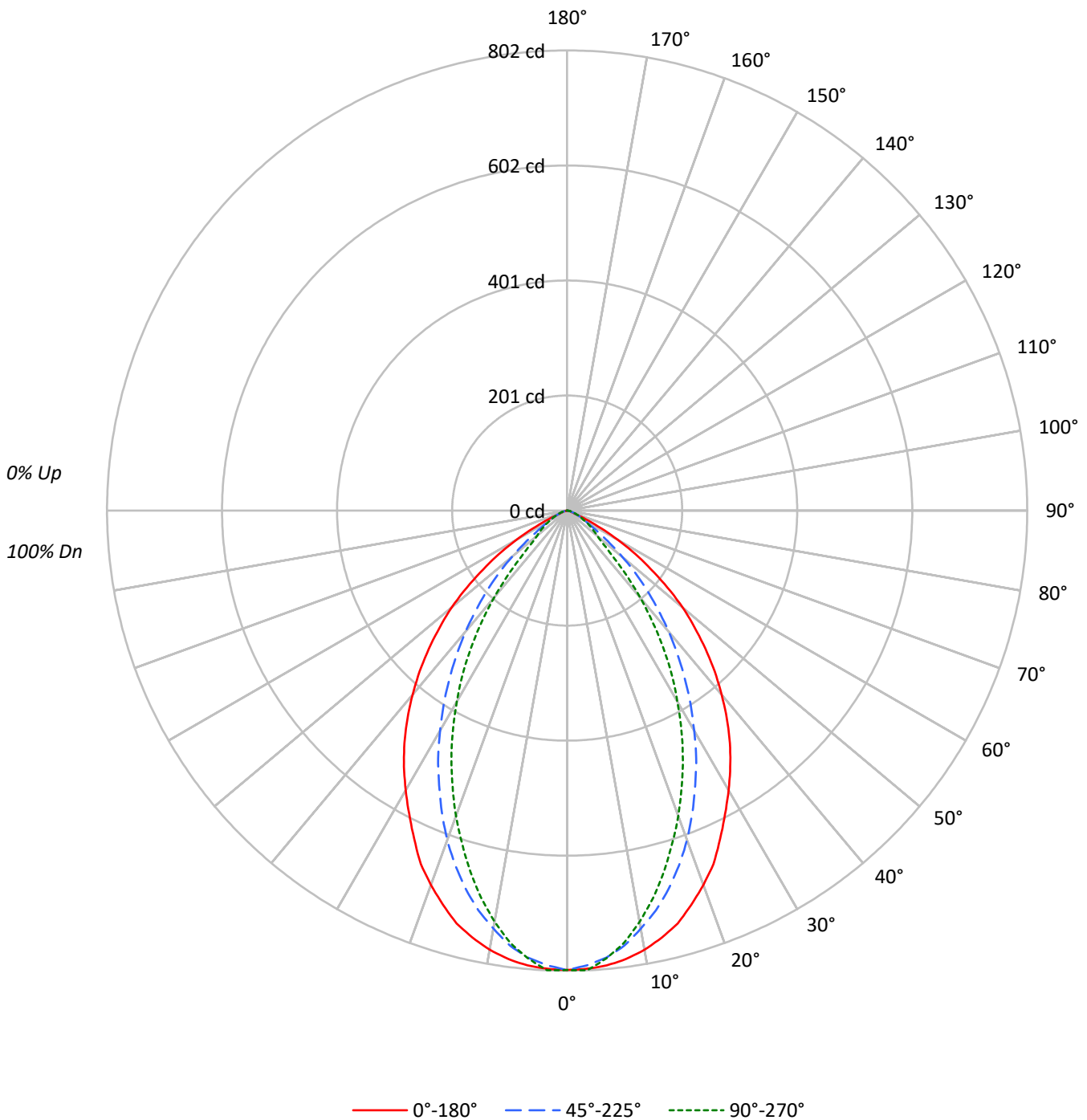
Lumens per Lamp: N/A  
Luminaire Lumens: 1033.7 lumens  
Efficiency: N/A  
Efficacy: 29.5 lumens/watt  
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39

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

	0°	45°	90°
0°	9402	9402	9402
5°	9379	9219	9233
10°	9266	8822	8676
15°	9055	8302	7925
20°	8674	7635	7078
25°	8174	6841	6183
30°	7630	6000	5209
35°	7089	5118	4193
40°	6421	4218	3040
45°	5659	3273	1832
50°	4801	2287	1246
55°	3654	1370	1040
60°	2386	874	815
65°	997	653	653
70°	340	467	512
75°	281	336	395
80°	169	250	338
85°	162	162	337

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5659 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.9	7.2
10°-20°	193.5	18.7
20°-30°	248.2	24.0
30°-40°	232.9	22.5
40°-50°	162.5	15.7
50°-60°	84.0	8.1
60°-70°	28.7	2.8
70°-80°	8.2	0.8
80°-90°	1.7	0.2
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°	515.6	49.9
0°-40°	748.5	72.4
0°-60°	995.0	96.3
0°-90°	1033.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1033.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	801	801	801	801	801	
5°	796	794	782	786	783	75
15°	745	726	683	661	652	209
25°	631	591	528	492	477	290
35°	494	434	357	311	292	308
45°	341	279	197	136	110	262
55°	178	134	67	52	51	161
65°	36	31	24	22	24	42
75°	6	6	7	9	9	6
85°	1	1	1	1	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	800.7	800.7	800.7	800.7	800.7
2.5°	799.4	800.7	793.2	800.7	801.9
5°	795.7	794.5	782.1	785.8	783.3
7.5°	788.3	784.6	764.7	759.8	759.8
10°	777.1	769.7	739.9	731.3	727.6
12.5°	762.3	752.3	713.9	697.8	691.6
15°	744.9	726.3	682.9	660.6	651.9
17.5°	720.1	695.3	648.2	622.2	608.6
20°	694.1	663.1	611.0	580.1	566.4
22.5°	666.8	629.6	570.1	536.7	521.8
25°	630.9	591.2	528.0	492.1	477.2
27.5°	596.2	554.0	487.1	446.2	431.3
30°	562.7	513.1	442.5	402.8	384.2
32.5°	529.2	473.5	400.3	357.0	339.6
35°	494.5	433.8	357.0	311.1	292.5
37.5°	457.4	395.4	316.1	266.5	244.2
40°	418.9	354.5	275.2	219.4	198.3
42.5°	380.5	317.3	234.3	177.2	152.5
45°	340.8	278.9	197.1	136.3	110.3
47.5°	301.2	240.5	161.1	99.2	83.0
50°	262.8	204.5	125.2	73.1	68.2
52.5°	220.6	169.8	94.2	60.7	59.5
55°	178.5	133.9	66.9	52.1	50.8
57.5°	141.3	104.1	48.3	43.4	42.1
60°	101.6	74.4	37.2	35.9	34.7
62.5°	66.9	50.8	29.7	28.5	28.5
65°	35.9	31.0	23.5	22.3	23.5
67.5°	14.9	17.4	17.4	18.6	18.6
70°	9.9	11.2	13.6	14.9	14.9
72.5°	7.4	8.7	9.9	11.2	11.2
75°	6.2	6.2	7.4	8.7	8.7
77.5°	3.7	5.0	5.0	6.2	7.4
80°	2.5	3.7	3.7	5.0	5.0
82.5°	1.2	2.5	2.5	3.7	3.7
85°	1.2	1.2	1.2	1.2	2.5
87.5°	0.0	0.0	0.0	0.0	1.2
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	14.12	15.38	14.48	15.69	16.00	7.63	8.88	7.99	9.20	9.51
	3H	14.07	15.18	14.45	15.51	15.88	8.40	9.51	8.78	9.84	10.21
	4H	14.02	15.05	14.42	15.40	15.78	8.60	9.63	9.01	9.99	10.37
	6H	13.95	14.89	14.36	15.26	15.66	8.75	9.69	9.16	10.06	10.46
	8H	13.91	14.80	14.34	15.19	15.59	8.78	9.68	9.22	10.07	10.47
	12H	13.86	14.71	14.30	15.10	15.53	8.80	9.65	9.23	10.04	10.47
4H	2H	13.96	14.99	14.37	15.35	15.73	7.88	8.91	8.28	9.26	9.65
	3H	13.95	14.78	14.36	15.19	15.59	8.79	9.62	9.20	10.03	10.43
	4H	13.90	14.64	14.33	15.06	15.51	9.06	9.81	9.50	10.23	10.67
	6H	13.84	14.48	14.31	14.93	15.39	9.28	9.92	9.75	10.37	10.83
	8H	13.79	14.38	14.26	14.83	15.30	9.34	9.94	9.81	10.38	10.86
	12H	13.74	14.27	14.23	14.75	15.23	9.38	9.90	9.87	10.39	10.86
8H	4H	13.79	14.38	14.26	14.83	15.30	9.05	9.64	9.52	10.09	10.56
	6H	13.72	14.21	14.23	14.70	15.19	9.32	9.80	9.82	10.30	10.78
	8H	13.67	14.11	14.20	14.62	15.12	9.42	9.86	9.95	10.38	10.87
	12H	13.63	14.02	14.15	14.51	15.09	9.50	9.88	10.01	10.38	10.95
12H	4H	13.74	14.26	14.23	14.75	15.22	9.01	9.53	9.50	10.02	10.49
	6H	13.66	14.10	14.19	14.62	15.11	9.28	9.71	9.80	10.23	10.72
	8H	13.63	14.02	14.15	14.52	15.09	9.42	9.80	9.93	10.30	10.87