

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: P1059016

Luminaire Tested: S123RDRP-S1000D835-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059016  
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-S1000D835-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: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

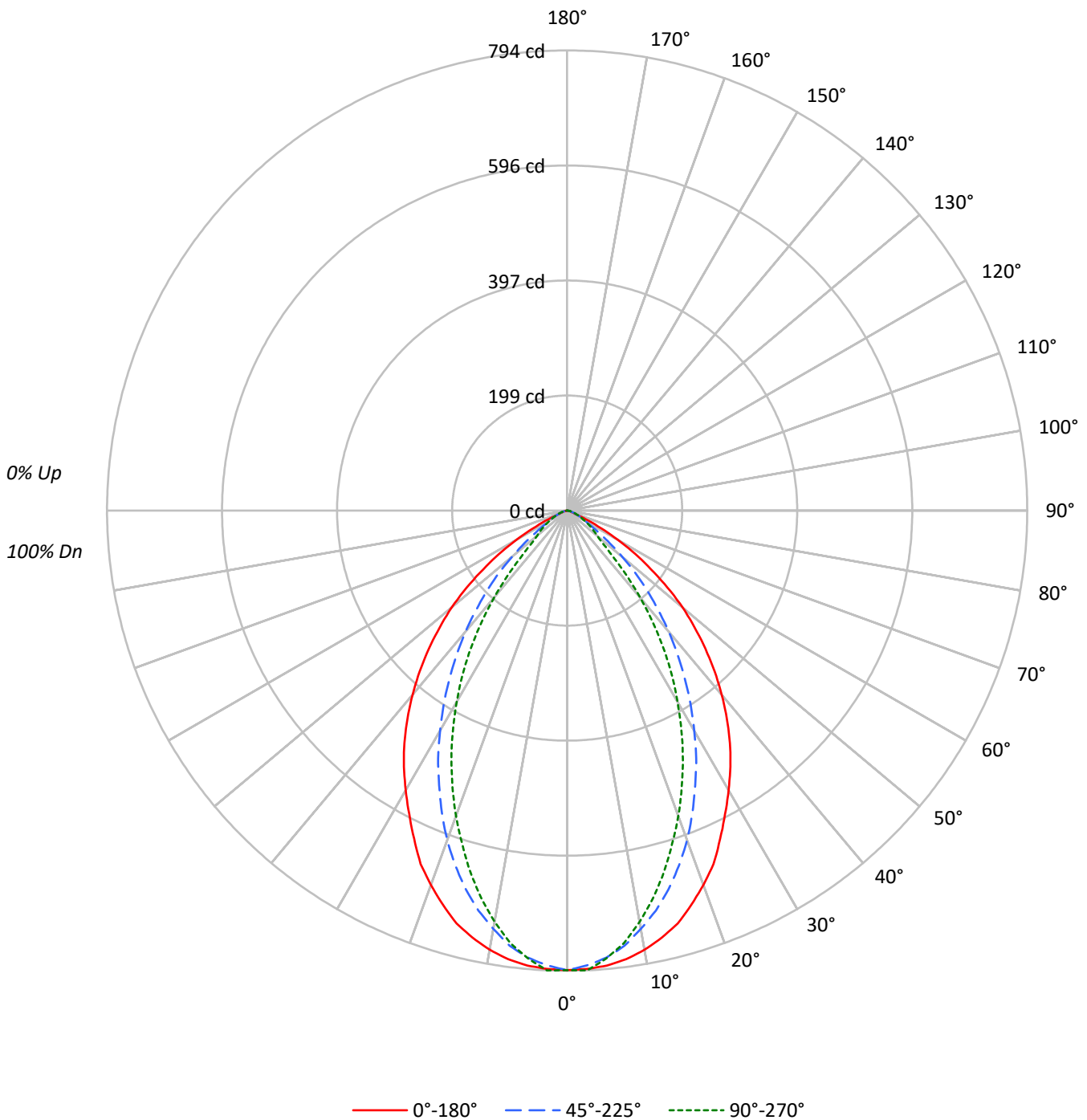
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1023.5 lumens  
Efficiency: N/A  
Efficacy: 29.2 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°	9311	9311	9311
5°	9288	9128	9143
10°	9175	8736	8590
15°	8967	8222	7848
20°	8589	7561	7009
25°	8094	6774	6122
30°	7555	5942	5159
35°	7020	5067	4153
40°	6358	4177	3011
45°	5605	3240	1813
50°	4753	2265	1233
55°	3617	1357	1030
60°	2363	864	808
65°	989	647	647
70°	336	463	505
75°	277	336	390
80°	169	250	331
85°	162	162	337

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5605 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.2	7.2
10°-20°	191.6	18.7
20°-30°	245.7	24.0
30°-40°	230.6	22.5
40°-50°	160.9	15.7
50°-60°	83.2	8.1
60°-70°	28.4	2.8
70°-80°	8.1	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°	510.6	49.9
0°-40°	741.2	72.4
0°-60°	985.3	96.3
0°-90°	1023.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1023.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	793	793	793	793	793	
5°	788	787	774	778	776	75
15°	738	719	676	654	646	207
25°	625	585	523	487	472	287
35°	490	430	354	308	290	305
45°	338	276	195	135	109	260
55°	177	133	66	52	50	159
65°	36	31	23	22	23	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°	792.9	792.9	792.9	792.9	792.9
2.5°	791.6	792.9	785.5	792.9	794.1
5°	788.0	786.7	774.4	778.1	775.7
7.5°	780.6	776.9	757.3	752.4	752.4
10°	769.5	762.2	732.7	724.1	720.4
12.5°	754.8	745.0	706.9	691.0	684.9
15°	737.6	719.2	676.3	654.2	645.6
17.5°	713.1	688.5	641.9	616.1	602.6
20°	687.3	656.6	605.1	574.4	560.9
22.5°	660.3	623.5	564.6	531.4	516.7
25°	624.7	585.4	522.8	487.3	472.5
27.5°	590.3	548.6	482.3	441.8	427.1
30°	557.2	508.1	438.2	398.9	380.5
32.5°	524.1	468.8	396.4	353.5	336.3
35°	489.7	429.6	353.5	308.1	289.7
37.5°	452.9	391.5	313.0	263.9	241.8
40°	414.8	351.0	272.5	217.2	196.4
42.5°	376.8	314.2	232.0	175.5	151.0
45°	337.5	276.2	195.1	135.0	109.2
47.5°	298.2	238.1	159.6	98.2	82.2
50°	260.2	202.5	124.0	72.4	67.5
52.5°	218.5	168.1	93.3	60.1	58.9
55°	176.7	132.6	66.3	51.5	50.3
57.5°	139.9	103.1	47.9	43.0	41.7
60°	100.6	73.6	36.8	35.6	34.4
62.5°	66.3	50.3	29.5	28.2	28.2
65°	35.6	30.7	23.3	22.1	23.3
67.5°	14.7	17.2	17.2	18.4	18.4
70°	9.8	11.0	13.5	14.7	14.7
72.5°	7.4	8.6	9.8	11.0	11.0
75°	6.1	6.1	7.4	8.6	8.6
77.5°	3.7	4.9	4.9	6.1	7.4
80°	2.5	3.7	3.7	4.9	4.9
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	14.08	15.34	14.45	15.66	15.97	7.59	8.85	7.96	9.17	9.48
	3H	14.04	15.15	14.42	15.48	15.84	8.37	9.48	8.75	9.81	10.17
	4H	13.98	15.01	14.39	15.37	15.75	8.57	9.60	8.97	9.95	10.33
	6H	13.91	14.86	14.33	15.23	15.62	8.71	9.66	9.13	10.03	10.42
	8H	13.87	14.76	14.30	15.15	15.56	8.75	9.64	9.18	10.03	10.44
	12H	13.83	14.68	14.26	15.06	15.49	8.77	9.62	9.20	10.00	10.43
4H	2H	13.93	14.96	14.33	15.31	15.70	7.85	8.88	8.25	9.23	9.62
	3H	13.92	14.75	14.33	15.16	15.56	8.75	9.59	9.17	9.99	10.40
	4H	13.86	14.61	14.30	15.03	15.47	9.03	9.77	9.46	10.19	10.63
	6H	13.81	14.44	14.27	14.89	15.36	9.24	9.88	9.71	10.33	10.80
	8H	13.75	14.35	14.23	14.80	15.27	9.30	9.90	9.78	10.35	10.82
	12H	13.71	14.23	14.20	14.72	15.19	9.34	9.87	9.83	10.35	10.83
8H	4H	13.75	14.35	14.22	14.79	15.27	9.01	9.61	9.48	10.05	10.53
	6H	13.69	14.17	14.19	14.67	15.15	9.28	9.76	9.78	10.26	10.74
	8H	13.64	14.07	14.16	14.59	15.08	9.39	9.82	9.91	10.34	10.83
	12H	13.60	13.98	14.12	14.48	15.05	9.46	9.85	9.98	10.34	10.92
12H	4H	13.70	14.23	14.19	14.71	15.19	8.97	9.50	9.46	9.98	10.46
	6H	13.63	14.07	14.16	14.58	15.08	9.24	9.68	9.77	10.19	10.69
	8H	13.60	13.99	14.12	14.48	15.05	9.38	9.77	9.90	10.26	10.83