

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P1059422

Luminaire Tested: S123RDR-H1000D835-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059422  
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: S123RDR-H1000D835-X4F0-XX-UDD-SVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

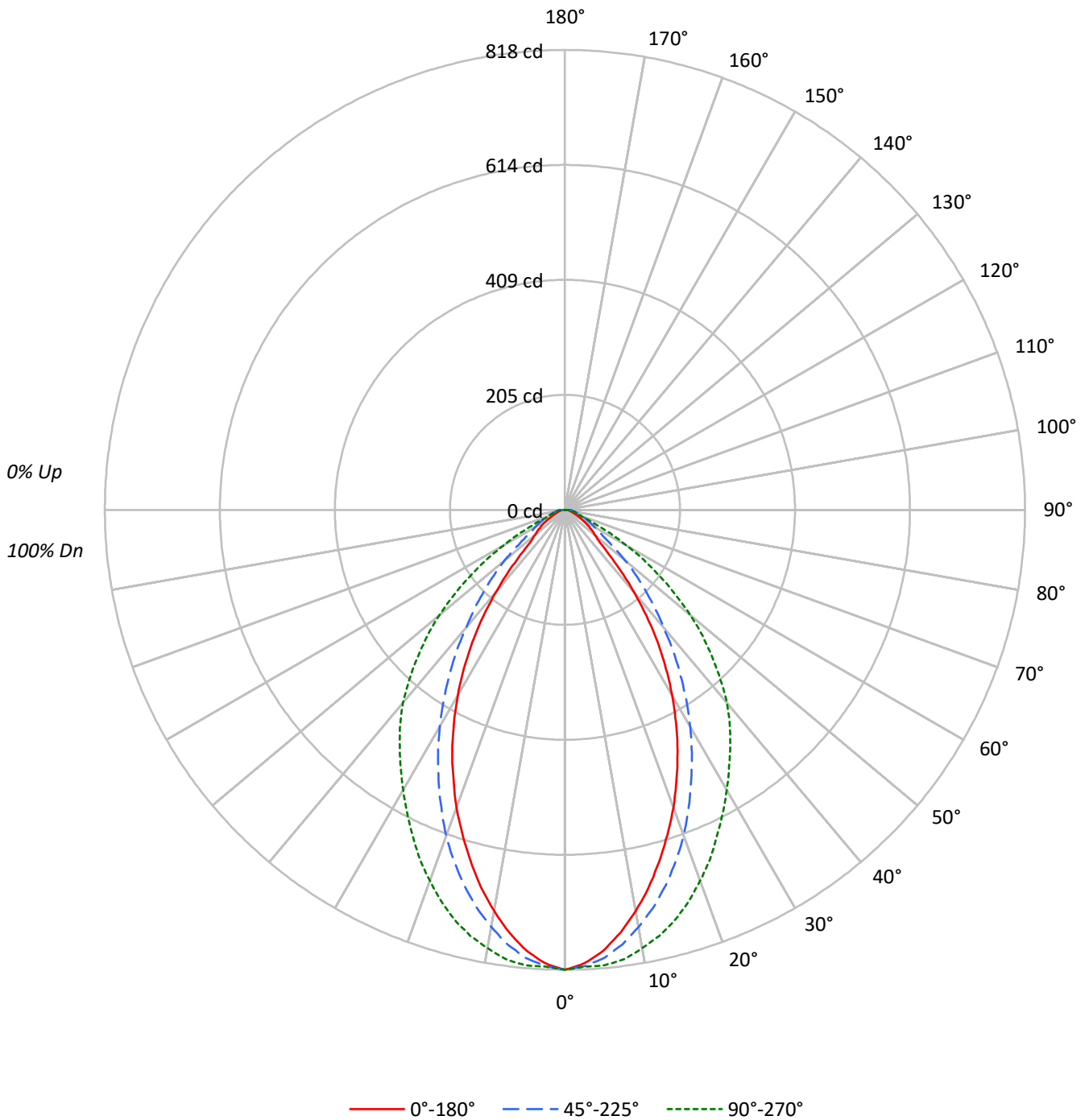
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1095.4 lumens  
Efficiency: N/A  
Efficacy: 35.1 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): 31.2  
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				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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48
8	70	58	51	46	69	58	51	46	57	50	46	56	50	46	54	49	45	44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37

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

	0°	45°	90°
0°	9604	9604	9604
5°	9275	9430	9584
10°	8642	8983	9439
15°	7868	8404	9188
20°	7043	7714	8773
25°	6141	6884	8292
30°	5165	6039	7803
35°	4108	5118	7342
40°	2928	4172	6864
45°	1745	3351	6146
50°	1286	2552	5321
55°	1075	1736	4230
60°	869	1430	2973
65°	697	1228	1592
70°	573	1064	985
75°	540	1030	921
80°	568	1129	886
85°	808	1603	1132

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6146 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.1	6.9
10°-20°	195.2	17.8
20°-30°	249.0	22.7
30°-40°	234.2	21.4
40°-50°	168.3	15.4
50°-60°	96.5	8.8
60°-70°	44.1	4.0
70°-80°	22.2	2.0
80°-90°	10.8	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°	519.3	47.4
0°-40°	753.5	68.8
0°-60°	1018.3	93.0
0°-90°	1095.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1095.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	818	818	818	818	818	
5°	787	802	800	806	813	73
15°	647	670	691	728	756	181
25°	474	496	531	589	640	216
35°	287	307	357	438	512	177
45°	105	128	202	297	370	88
55°	52	54	85	156	207	47
65°	25	35	44	49	57	25
75°	12	24	23	20	20	13
85°	6	12	12	11	8	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	817.9	817.9	817.9	817.9	817.9
2.5°	807.2	819.1	811.9	811.9	813.1
5°	786.9	802.4	800.0	806.0	813.1
7.5°	758.2	774.9	779.7	794.0	806.0
10°	724.8	743.9	753.4	776.1	791.6
12.5°	687.8	709.2	724.8	753.4	776.1
15°	647.2	669.8	691.3	728.3	755.8
17.5°	605.4	628.0	655.5	698.5	730.7
20°	563.6	586.3	617.3	662.7	702.1
22.5°	518.2	540.9	574.3	625.7	673.4
25°	474.0	495.5	531.3	588.6	640.0
27.5°	427.5	448.9	488.4	550.4	607.8
30°	380.9	402.4	445.4	512.2	575.5
32.5°	334.3	354.6	401.2	475.2	543.3
35°	286.6	306.9	357.0	438.2	512.2
37.5°	237.6	257.9	316.4	404.8	481.2
40°	191.0	213.7	272.2	371.3	447.8
42.5°	145.7	169.5	236.4	335.5	409.5
45°	105.1	127.8	201.8	297.3	370.1
47.5°	80.0	91.9	170.7	259.1	331.9
50°	70.4	71.6	139.7	224.5	291.3
52.5°	60.9	62.1	108.7	191.0	248.4
55°	52.5	53.7	84.8	156.4	206.6
57.5°	44.2	46.6	69.3	124.2	166.0
60°	37.0	41.8	60.9	94.3	126.6
62.5°	29.9	38.2	52.5	69.3	90.7
65°	25.1	34.6	44.2	49.0	57.3
67.5°	20.3	32.2	37.0	34.6	34.6
70°	16.7	28.7	31.0	28.7	28.7
72.5°	14.3	27.5	26.3	23.9	23.9
75°	11.9	23.9	22.7	20.3	20.3
77.5°	10.7	20.3	19.1	17.9	16.7
80°	8.4	16.7	16.7	15.5	13.1
82.5°	7.2	14.3	14.3	13.1	10.7
85°	6.0	11.9	11.9	10.7	8.4
87.5°	4.8	10.7	10.7	9.6	6.0
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	7.85	9.17	8.21	9.48	9.79	15.07	16.39	15.43	16.70	17.01
	3H	9.25	10.42	9.63	10.75	11.11	15.30	16.47	15.68	16.80	17.17
	4H	9.81	10.90	10.21	11.25	11.63	15.41	16.50	15.81	16.85	17.24
	6H	10.27	11.27	10.68	11.64	12.03	15.52	16.52	15.93	16.89	17.28
	8H	10.45	11.40	10.88	11.79	12.20	15.57	16.51	16.00	16.91	17.31
	12H	10.65	11.55	11.08	11.94	12.37	15.62	16.52	16.05	16.91	17.34
4H	2H	8.92	10.01	9.32	10.36	10.75	15.03	16.12	15.43	16.47	16.85
	3H	10.61	11.50	11.02	11.91	12.31	15.40	16.29	15.81	16.69	17.10
	4H	11.44	12.24	11.88	12.66	13.10	15.58	16.38	16.02	16.80	17.24
	6H	12.10	12.79	12.56	13.24	13.70	15.80	16.49	16.27	16.94	17.41
	8H	12.36	13.00	12.83	13.45	13.92	15.90	16.55	16.37	17.00	17.47
	12H	12.61	13.18	13.10	13.67	14.14	16.02	16.59	16.51	17.07	17.55
8H	4H	11.88	12.52	12.35	12.97	13.44	15.63	16.27	16.10	16.72	17.19
	6H	12.83	13.36	13.33	13.85	14.34	15.96	16.49	16.46	16.98	17.47
	8H	13.29	13.77	13.81	14.28	14.78	16.15	16.62	16.67	17.14	17.63
	12H	13.77	14.19	14.29	14.69	15.26	16.38	16.80	16.89	17.30	17.87
12H	4H	11.94	12.51	12.42	12.99	13.47	15.62	16.19	16.11	16.67	17.15
	6H	12.98	13.45	13.50	13.97	14.46	15.98	16.46	16.51	16.98	17.47
	8H	13.57	13.99	14.08	14.48	15.06	16.24	16.67	16.76	17.16	17.73