

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: P1059013

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059013  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S1000D835-X4F0-XX-UDD-BVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

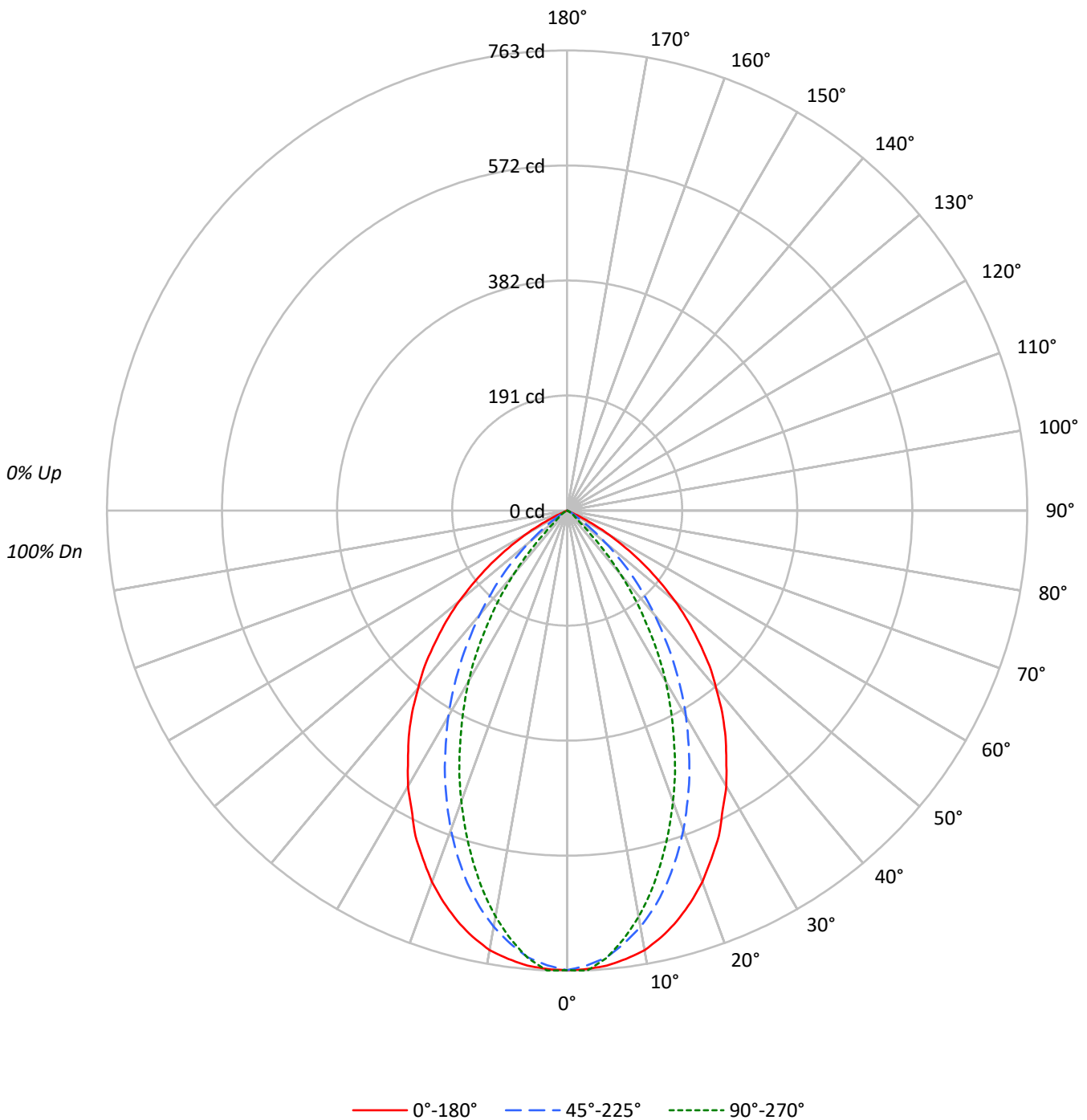
Lumens per Lamp: N/A  
Luminaire Lumens: 869.7 lumens  
Efficiency: N/A  
Efficacy: 24.8 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92					92			
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84					84			
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76					76			
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69					69			
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63					63			
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58					58			
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53					53			
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49					49			
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46					46			
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42					42			

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

	0°	45°	90°
0°	8949	8949	8949
5°	8925	8766	8780
10°	8823	8356	8151
15°	8563	7773	7326
20°	8189	7039	6410
25°	7712	6218	5422
30°	7155	5341	4426
35°	6563	4415	3290
40°	5888	3461	2108
45°	5136	2527	877
50°	4260	1502	336
55°	3140	628	252
60°	1902	230	143
65°	511	136	69
70°	0	41	41
75°	0	0	54
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5136 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.2	8.1
10°-20°	181.1	20.8
20°-30°	225.7	25.9
30°-40°	201.8	23.2
40°-50°	127.3	14.6
50°-60°	53.3	6.1
60°-70°	10.0	1.2
70°-80°	0.3	0.0
80°-90°	0.0	0.0
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°	476.9	54.8
0°-40°	678.7	78.0
0°-60°	859.3	98.8
0°-90°	869.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	869.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	762	762	762	762	762	
5°	757	756	744	746	745	72
15°	704	687	639	612	603	198
25°	595	547	480	438	418	272
35°	458	392	308	253	230	285
45°	309	240	152	81	53	238
55°	153	106	31	12	12	137
65°	18	14	5	2	2	26
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	762.1	762.1	762.1	762.1	762.1
2.5°	760.9	762.1	754.8	762.1	763.3
5°	757.2	756.0	743.7	746.2	744.9
7.5°	749.8	746.2	724.1	719.2	716.7
10°	740.0	730.2	700.8	688.5	683.6
12.5°	724.1	710.6	672.5	652.9	645.5
15°	704.4	687.3	639.4	612.4	602.6
17.5°	681.1	656.6	602.6	573.1	558.4
20°	655.3	621.0	563.3	527.7	513.0
22.5°	624.7	586.6	521.6	483.5	467.6
25°	595.2	547.4	479.9	438.1	418.5
27.5°	558.4	508.1	435.7	392.7	371.9
30°	527.7	470.0	393.9	346.1	326.4
32.5°	490.9	430.8	351.0	298.2	279.8
35°	457.8	391.5	308.0	252.8	229.5
37.5°	422.2	353.4	265.1	207.4	185.3
40°	384.1	315.4	225.8	162.0	137.5
42.5°	349.8	277.4	186.5	120.3	95.7
45°	309.3	240.5	152.2	81.0	52.8
47.5°	272.4	206.2	115.4	45.4	28.2
50°	233.2	170.6	82.2	23.3	18.4
52.5°	192.7	136.2	54.0	16.0	14.7
55°	153.4	105.5	30.7	12.3	12.3
57.5°	115.4	76.1	16.0	9.8	8.6
60°	81.0	50.3	9.8	7.4	6.1
62.5°	46.6	29.5	7.4	4.9	4.9
65°	18.4	13.5	4.9	2.5	2.5
67.5°	1.2	3.7	2.5	1.2	1.2
70°	0.0	0.0	1.2	1.2	1.2
72.5°	0.0	0.0	1.2	1.2	1.2
75°	0.0	0.0	0.0	0.0	1.2
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	12.81	13.98	13.17	14.29	14.61	0.00	0.00	0.00	0.00	0.00
	3H	12.65	13.68	13.03	14.01	14.38	0.00	0.00	0.00	0.00	0.00
	4H	12.56	13.51	12.97	13.87	14.25	0.00	0.00	0.00	0.00	0.00
	6H	12.47	13.34	12.88	13.71	14.11	0.00	0.00	0.00	0.00	0.00
	8H	12.42	13.24	12.85	13.63	14.04	0.00	0.00	0.00	0.00	0.00
	12H	12.37	13.15	12.80	13.54	13.97	0.00	0.00	0.00	0.00	0.00
4H	2H	12.56	13.52	12.97	13.87	14.26	0.00	0.00	0.00	0.00	0.00
	3H	12.40	13.17	12.81	13.57	13.98	0.00	0.00	0.00	0.00	0.00
	4H	12.30	12.98	12.73	13.40	13.85	0.00	0.00	0.00	0.00	0.00
	6H	12.20	12.78	12.67	13.23	13.70	0.00	0.00	0.00	0.00	0.00
	8H	12.13	12.68	12.61	13.13	13.60	0.00	0.00	0.00	0.00	0.00
	12H	12.08	12.55	12.57	13.04	13.52	0.00	0.00	0.00	0.00	0.00
8H	4H	12.13	12.68	12.61	13.13	13.60	0.00	0.00	0.00	0.00	0.00
	6H	12.02	12.46	12.52	12.96	13.44	0.00	0.00	0.00	0.00	0.00
	8H	11.95	12.34	12.47	12.86	13.36	0.00	0.00	0.00	0.00	0.00
	12H	11.89	12.24	12.41	12.74	13.31	0.00	0.00	0.00	0.00	0.00
12H	4H	12.08	12.55	12.57	13.04	13.52	0.00	0.00	0.00	0.00	0.00
	6H	11.95	12.34	12.47	12.86	13.36	0.00	0.00	0.00	0.00	0.00
	8H	11.89	12.24	12.41	12.74	13.31	0.00	0.00	0.00	0.00	0.00