

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: P1058366

Luminaire Tested: S122RDRP-H485D835-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058366  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-H485D835-X4F0-XX-UDD-BVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

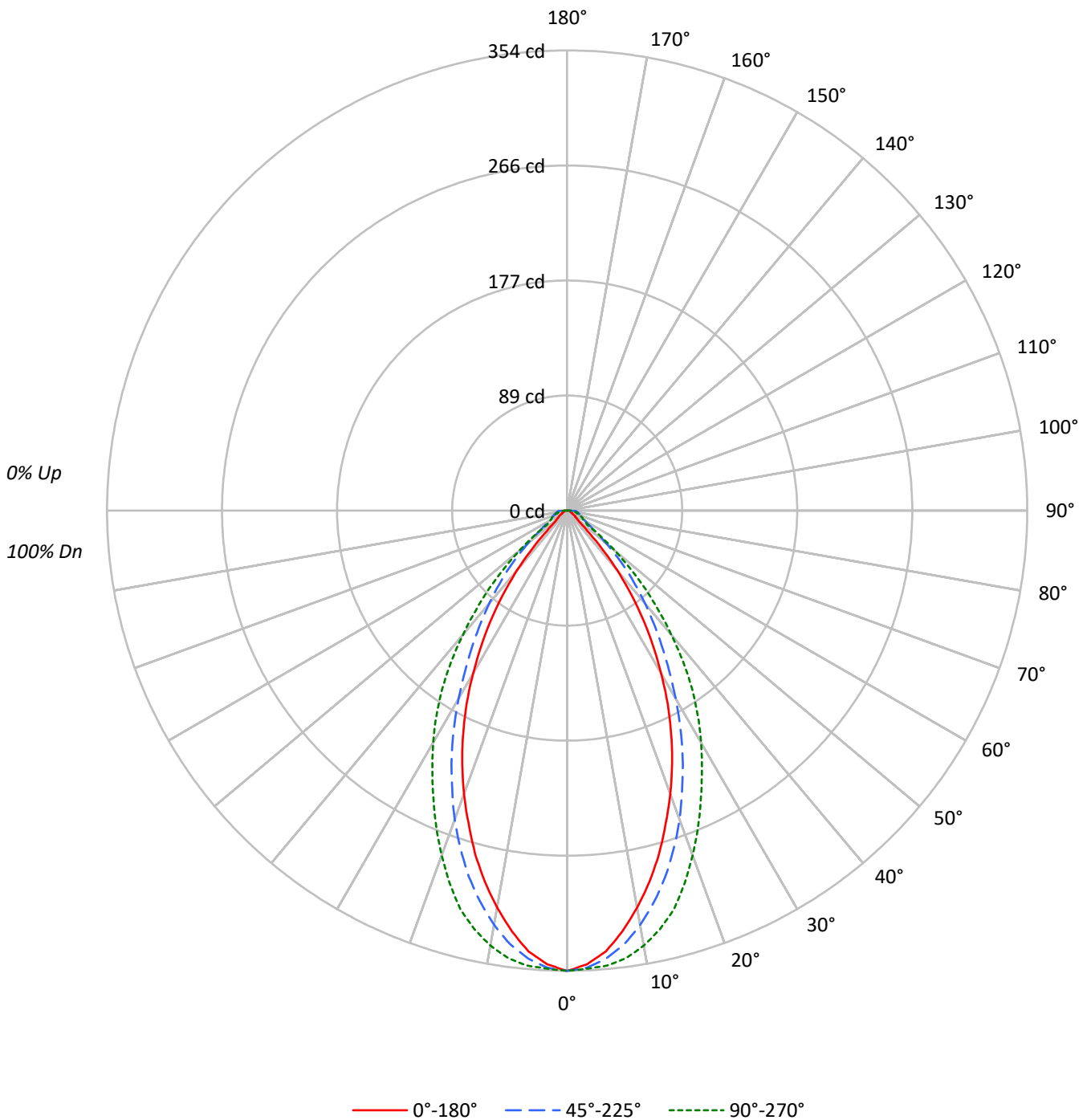
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 381.7 lumens  
Efficiency: N/A  
Efficacy: 21.9 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.4  
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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90					90			
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81					81			
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74					74			
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67					67			
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61					61			
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57					57			
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52					52			
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48					48			
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45					45			
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42					42			

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

	0°	45°	90°
0°	6534	6534	6534
5°	6307	6407	6509
10°	5809	6063	6367
15°	5223	5572	6065
20°	4556	4968	5541
25°	3852	4282	4958
30°	3079	3556	4394
35°	2277	2856	3773
40°	1438	2238	3006
45°	566	1681	2213
50°	293	1128	1364
55°	241	743	611
60°	173	602	550
65°	148	563	563
70°	146	588	550
75°	192	677	577
80°	287	861	648
85°	423	1440	868

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 87.5°  
 Luminance: 2877 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.4	8.5
10°-20°	81.8	21.4
20°-30°	97.2	25.5
30°-40°	80.9	21.2
40°-50°	45.2	11.8
50°-60°	18.2	4.8
60°-70°	11.7	3.1
70°-80°	8.8	2.3
80°-90°	5.6	1.5
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°	211.4	55.4
0°-40°	292.3	76.6
0°-60°	355.7	93.2
0°-90°	381.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	381.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	354	354	354	354	354	
5°	340	347	346	349	351	32
15°	273	282	292	307	318	76
25°	189	197	210	227	244	86
35°	101	111	127	148	168	63
45°	22	37	64	75	85	20
55°	8	16	23	22	19	6
65°	3	14	13	12	13	3
75°	3	10	10	9	8	3
85°	2	6	7	6	4	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	354.1	354.1	354.1	354.1	354.1
2.5°	349.3	354.8	352.0	352.0	352.7
5°	340.5	346.6	345.9	348.7	351.4
7.5°	326.3	333.1	336.4	342.5	347.3
10°	310.0	317.5	323.6	333.1	339.8
12.5°	292.4	299.8	308.6	320.8	329.7
15°	273.4	281.5	291.7	306.6	317.5
17.5°	252.3	261.2	272.7	289.0	300.5
20°	232.0	240.8	253.0	269.3	282.2
22.5°	211.0	218.4	231.3	247.6	263.2
25°	189.2	196.7	210.3	226.6	243.5
27.5°	167.5	175.0	188.6	205.5	224.5
30°	144.5	152.6	166.9	185.9	206.2
32.5°	122.8	130.9	145.8	166.9	187.2
35°	101.1	110.6	126.8	147.9	167.5
37.5°	80.0	90.9	109.2	128.9	146.5
40°	59.7	71.2	92.9	109.9	124.8
42.5°	39.3	52.9	78.0	92.3	103.8
45°	21.7	36.6	64.4	75.3	84.8
47.5°	12.2	23.7	50.9	59.7	65.1
50°	10.2	17.6	39.3	45.4	47.5
52.5°	8.1	16.3	29.8	33.2	31.9
55°	7.5	15.6	23.1	22.4	19.0
57.5°	6.1	15.6	18.3	16.3	16.3
60°	4.7	14.9	16.3	14.2	14.9
62.5°	4.1	14.2	14.9	13.6	13.6
65°	3.4	13.6	12.9	12.2	12.9
67.5°	2.7	12.2	12.2	11.5	11.5
70°	2.7	11.5	10.9	10.2	10.2
72.5°	2.7	10.2	10.2	9.5	9.5
75°	2.7	9.5	9.5	8.8	8.1
77.5°	2.7	8.1	8.8	8.1	7.5
80°	2.7	7.5	8.1	7.5	6.1
82.5°	2.7	6.8	7.5	6.8	5.4
85°	2.0	6.1	6.8	6.1	4.1
87.5°	2.0	6.1	6.8	5.4	3.4
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	4.88	6.10	5.25	6.42	6.73	5.97	7.19	6.33	7.50	7.82
	3H	6.21	7.30	6.59	7.63	7.99	7.99	9.08	8.37	9.41	9.77
	4H	6.79	7.80	7.19	8.15	8.53	8.94	9.95	9.35	10.31	10.69
	6H	7.35	8.28	7.77	8.65	9.05	9.89	10.82	10.31	11.19	11.59
	8H	7.68	8.55	8.11	8.95	9.35	10.34	11.22	10.77	11.61	12.02
	12H	7.98	8.82	8.41	9.20	9.63	10.77	11.61	11.20	11.99	12.42
4H	2H	5.85	6.86	6.25	7.21	7.60	6.65	7.66	7.05	8.01	8.39
	3H	7.88	8.71	8.29	9.11	9.52	8.93	9.76	9.34	10.16	10.57
	4H	8.96	9.70	9.39	10.12	10.57	10.07	10.82	10.50	11.24	11.68
	6H	9.83	10.47	10.29	10.92	11.39	11.24	11.89	11.71	12.34	12.80
	8H	10.24	10.84	10.71	11.29	11.76	11.80	12.41	12.27	12.86	13.33
	12H	10.61	11.15	11.10	11.63	12.11	12.35	12.88	12.84	13.37	13.84
8H	4H	9.73	10.33	10.20	10.78	11.25	10.62	11.22	11.09	11.67	12.14
	6H	11.07	11.56	11.57	12.06	12.54	12.08	12.57	12.58	13.07	13.55
	8H	11.79	12.23	12.31	12.75	13.24	12.84	13.29	13.36	13.80	14.30
	12H	12.47	12.87	12.99	13.36	13.94	13.63	14.02	14.15	14.52	15.09
12H	4H	9.88	10.42	10.37	10.90	11.38	10.73	11.26	11.21	11.74	12.22
	6H	11.39	11.84	11.91	12.35	12.85	12.30	12.75	12.83	13.27	13.76
	8H	12.30	12.69	12.81	13.19	13.76	13.21	13.61	13.73	14.10	14.67