

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: P1058369

Luminaire Tested: S122RDR-H485D835-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058369  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-59)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H485D835-X4F0-XX-UDD-SVL-S  
Description: DEFINE 2 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: -

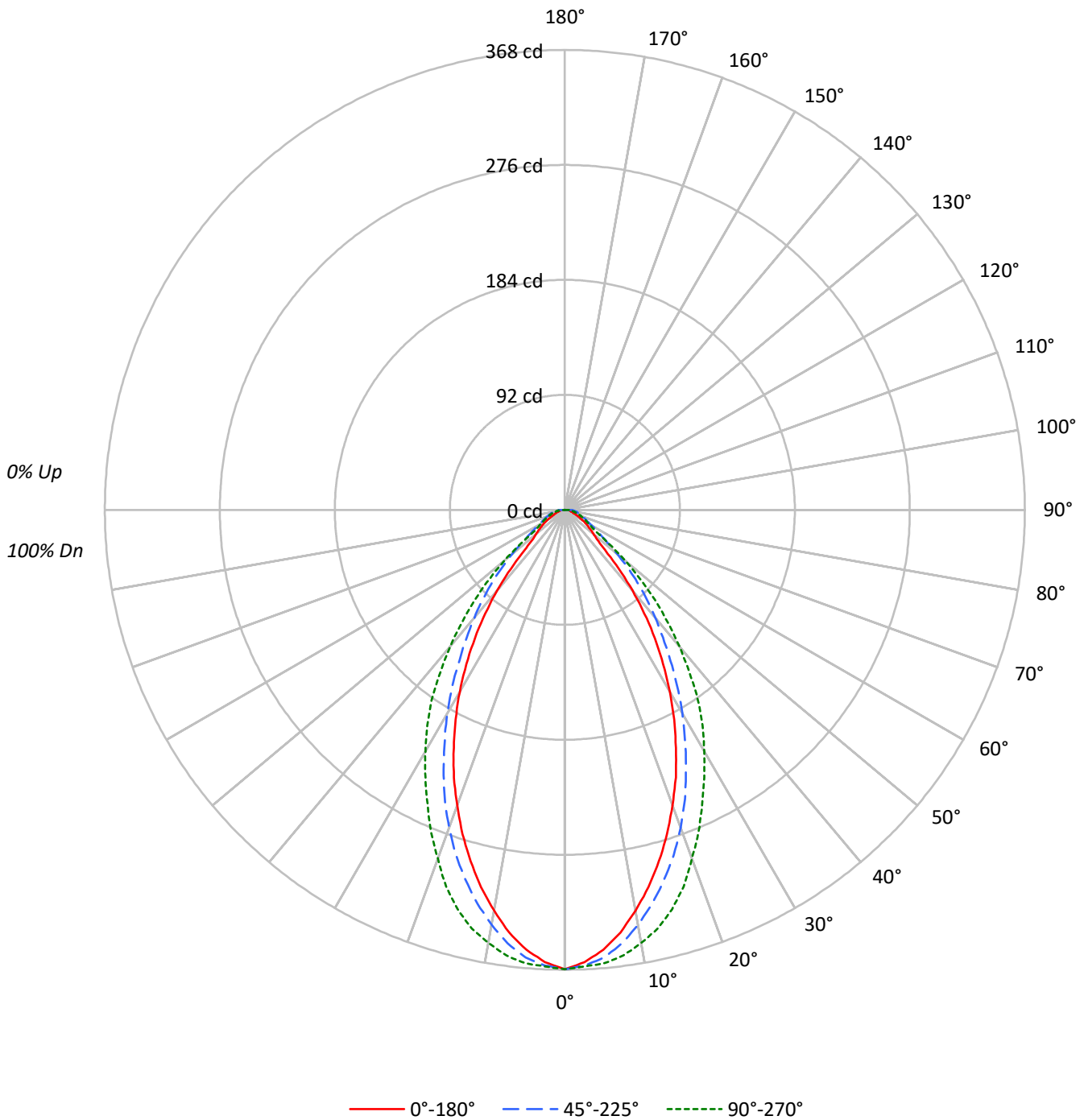
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 443.5 lumens  
Efficiency: N/A  
Efficacy: 25.5 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 0.97 / 0.94  
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 (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	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	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80				
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72				
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				
5	86	75	68	63	84	74	68	63	72	66	62	71	65	61	69	64	61	59				
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50				
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46				
9	67	56	49	45	66	56	49	44	55	49	44	54	48	44	53	48	44	42				
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39				

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

	0°	45°	90°
0°	6783	6783	6783
5°	6544	6659	6746
10°	6099	6316	6595
15°	5559	5857	6323
20°	4941	5314	5834
25°	4280	4667	5290
30°	3584	4004	4754
35°	2827	3316	4185
40°	2026	2712	3430
45°	1185	2142	2654
50°	855	1559	1791
55°	721	1113	939
60°	576	900	801
65°	476	799	742
70°	405	766	696
75°	385	820	677
80°	436	1010	723
85°	720	1588	995

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2654 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.7	7.6
10°-20°	86.3	19.5
20°-30°	106.0	23.9
30°-40°	93.8	21.1
40°-50°	59.8	13.5
50°-60°	29.2	6.6
60°-70°	17.4	3.9
70°-80°	11.1	2.5
80°-90°	6.1	1.4
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°	226.0	51.0
0°-40°	319.8	72.1
0°-60°	408.8	92.2
0°-90°	443.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	443.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	368	368	368	368	368	
5°	353	361	360	361	364	33
15°	291	299	307	320	331	81
25°	210	218	229	244	260	96
35°	126	132	147	168	186	78
45°	45	58	82	92	102	38
55°	22	30	35	33	29	20
65°	11	20	18	17	17	11
75°	5	12	12	10	10	6
85°	3	7	8	7	5	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	367.6	367.6	367.6	367.6	367.6
2.5°	362.2	368.9	364.9	364.9	365.6
5°	353.3	360.8	359.5	360.8	364.2
7.5°	341.1	348.6	350.0	355.4	359.5
10°	325.5	333.0	337.1	345.9	352.0
12.5°	309.3	316.7	322.8	334.4	343.2
15°	291.0	299.1	306.6	320.1	331.0
17.5°	272.0	280.1	289.6	303.2	316.0
20°	251.6	259.1	270.6	283.5	297.1
22.5°	231.9	238.7	250.9	263.1	279.4
25°	210.2	217.7	229.2	243.5	259.8
27.5°	189.2	196.7	208.2	224.5	241.4
30°	168.2	175.0	187.9	204.8	223.1
32.5°	146.5	153.3	167.5	185.8	204.8
35°	125.5	132.3	147.2	167.5	185.8
37.5°	104.4	111.9	128.9	147.9	163.4
40°	84.1	92.9	112.6	128.9	142.4
42.5°	63.8	76.0	97.0	110.5	121.4
45°	45.4	58.3	82.1	92.2	101.7
47.5°	34.6	44.8	67.8	75.3	81.4
50°	29.8	36.6	54.3	59.7	62.4
52.5°	25.8	32.6	43.4	45.4	44.1
55°	22.4	29.8	34.6	32.6	29.2
57.5°	19.0	27.8	28.5	24.4	25.1
60°	15.6	25.1	24.4	21.0	21.7
62.5°	12.9	23.1	21.0	19.0	19.0
65°	10.9	20.3	18.3	17.0	17.0
67.5°	8.8	18.3	16.3	14.9	14.9
70°	7.5	16.3	14.2	12.9	12.9
72.5°	6.8	14.2	12.9	11.5	11.5
75°	5.4	12.2	11.5	10.2	9.5
77.5°	4.7	10.2	10.2	9.5	8.1
80°	4.1	8.8	9.5	8.1	6.8
82.5°	4.1	8.1	8.1	7.5	5.4
85°	3.4	6.8	7.5	6.8	4.7
87.5°	2.0	6.1	6.1	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	8.68	9.96	9.04	10.27	10.59	8.20	9.48	8.57	9.79	10.11
	3H	9.86	10.99	10.24	11.32	11.69	9.76	10.90	10.14	11.23	11.60
	4H	10.28	11.35	10.69	11.70	12.08	10.45	11.51	10.85	11.86	12.24
	6H	10.63	11.60	11.04	11.98	12.37	11.09	12.07	11.51	12.44	12.84
	8H	10.83	11.75	11.26	12.14	12.55	11.38	12.31	11.81	12.70	13.10
	12H	11.05	11.93	11.48	12.31	12.75	11.70	12.58	12.13	12.96	13.39
4H	2H	9.18	10.24	9.58	10.59	10.98	8.80	9.86	9.20	10.21	10.60
	3H	10.83	11.70	11.24	12.11	12.51	10.60	11.48	11.01	11.88	12.28
	4H	11.59	12.37	12.02	12.79	13.24	11.44	12.23	11.88	12.65	13.09
	6H	12.19	12.87	12.65	13.32	13.78	12.30	12.98	12.76	13.42	13.89
	8H	12.49	13.13	12.96	13.57	14.05	12.69	13.32	13.16	13.77	14.24
	12H	12.81	13.37	13.29	13.85	14.33	13.12	13.68	13.61	14.17	14.64
8H	4H	12.01	12.64	12.48	13.09	13.56	11.90	12.54	12.37	12.99	13.46
	6H	12.96	13.48	13.46	13.97	14.46	13.01	13.53	13.51	14.03	14.51
	8H	13.50	13.97	14.02	14.49	14.98	13.59	14.06	14.11	14.57	15.07
	12H	14.07	14.48	14.58	14.98	15.55	14.26	14.67	14.77	15.17	15.74
12H	4H	12.08	12.64	12.56	13.12	13.60	11.99	12.55	12.47	13.03	13.51
	6H	13.14	13.61	13.66	14.12	14.61	13.19	13.66	13.71	14.18	14.67
	8H	13.83	14.24	14.34	14.74	15.31	13.91	14.32	14.42	14.82	15.39