

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: P1058397

Luminaire Tested: S122RDR-H485D927-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058397  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H485D927-X4F0-XX-UDD-SVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

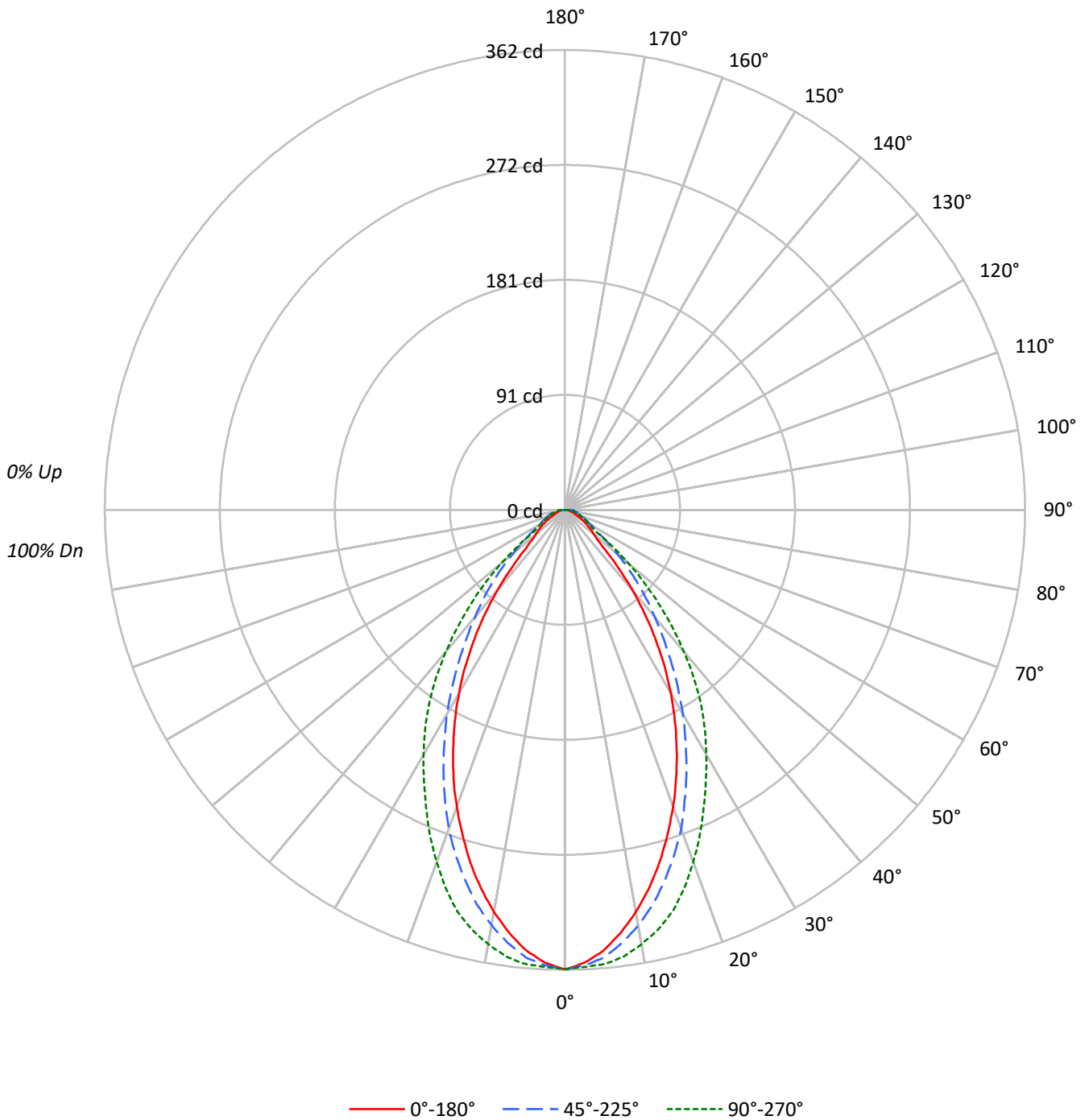
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 438.6 lumens  
Efficiency: N/A  
Efficacy: 25.2 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95  
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	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	102	99	97	98	96	94	94	93	91	89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	83	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	67	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	45	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°	6672	6672	6672
5°	6450	6550	6648
10°	6020	6223	6504
15°	5492	5779	6251
20°	4886	5245	5793
25°	4235	4605	5263
30°	3550	3950	4741
35°	2796	3269	4201
40°	1994	2640	3507
45°	1177	2090	2719
50°	850	1513	1852
55°	708	1091	933
60°	576	871	793
65°	467	773	729
70°	405	755	696
75°	385	763	692
80°	404	914	744
85°	572	1482	910

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2719 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.2	7.6
10°-20°	85.2	19.4
20°-30°	105.1	24.0
30°-40°	93.5	21.3
40°-50°	59.7	13.6
50°-60°	28.7	6.5
60°-70°	16.8	3.8
70°-80°	10.7	2.4
80°-90°	5.7	1.3
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°	223.5	51.0
0°-40°	317.0	72.3
0°-60°	405.4	92.4
0°-90°	438.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	438.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	362	362	362	362	362	
5°	348	355	354	356	359	32
15°	288	294	302	316	327	80
25°	208	216	226	242	258	95
35°	124	134	145	167	186	77
45°	45	59	80	93	104	38
55°	22	28	34	33	29	20
65°	11	19	18	16	17	11
75°	5	12	11	10	10	6
85°	3	6	7	6	4	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	361.6	361.6	361.6	361.6	361.6
2.5°	356.8	362.7	358.9	358.9	360.0
5°	348.2	354.6	353.6	355.7	358.9
7.5°	335.8	342.8	343.9	349.8	354.6
10°	321.3	328.9	332.1	340.7	347.1
12.5°	305.2	312.7	318.6	329.4	338.5
15°	287.5	294.5	302.5	316.5	327.2
17.5°	268.1	277.3	285.3	299.8	312.2
20°	248.8	257.4	267.1	281.0	295.0
22.5°	228.9	237.0	246.6	261.1	277.3
25°	208.0	216.0	226.2	242.3	258.5
27.5°	187.5	195.6	205.3	223.0	240.2
30°	166.6	174.6	185.4	203.7	222.5
32.5°	145.6	154.2	165.0	184.8	204.7
35°	124.1	133.8	145.1	167.1	186.5
37.5°	103.2	112.8	126.8	148.3	166.6
40°	82.8	94.0	109.6	129.0	145.6
42.5°	62.9	75.2	94.6	110.2	124.7
45°	45.1	58.6	80.1	93.0	104.2
47.5°	34.4	44.1	66.1	76.3	84.4
50°	29.6	35.5	52.7	60.2	64.5
52.5°	25.8	31.2	41.9	45.7	45.7
55°	22.0	28.5	33.9	32.8	29.0
57.5°	18.8	25.8	27.9	23.6	24.7
60°	15.6	23.6	23.6	21.0	21.5
62.5°	12.9	22.0	20.4	18.3	18.8
65°	10.7	19.3	17.7	16.1	16.7
67.5°	8.6	17.2	15.6	14.5	14.5
70°	7.5	15.6	14.0	12.9	12.9
72.5°	6.4	13.4	12.4	11.3	11.3
75°	5.4	11.8	10.7	10.2	9.7
77.5°	4.8	10.2	9.7	8.6	8.1
80°	3.8	8.6	8.6	8.1	7.0
82.5°	3.2	7.5	7.5	7.0	5.9
85°	2.7	6.4	7.0	5.9	4.3
87.5°	2.1	5.9	5.9	4.8	3.2
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	8.27	9.54	8.63	9.86	10.17	8.05	9.32	8.41	9.64	9.95
	3H	9.50	10.63	9.88	10.96	11.33	9.64	10.78	10.02	11.11	11.47
	4H	9.95	11.01	10.35	11.36	11.74	10.36	11.42	10.77	11.77	12.16
	6H	10.33	11.30	10.74	11.67	12.07	11.02	11.99	11.43	12.36	12.76
	8H	10.48	11.41	10.91	11.80	12.20	11.35	12.27	11.78	12.66	13.07
	12H	10.64	11.52	11.07	11.91	12.34	11.65	12.53	12.08	12.91	13.34
4H	2H	8.81	9.87	9.22	10.22	10.61	8.64	9.70	9.04	10.05	10.43
	3H	10.51	11.38	10.92	11.79	12.19	10.48	11.35	10.89	11.76	12.16
	4H	11.30	12.08	11.74	12.50	12.95	11.36	12.14	11.79	12.56	13.00
	6H	11.95	12.62	12.41	13.07	13.54	12.21	12.88	12.67	13.33	13.80
	8H	12.19	12.83	12.66	13.28	13.75	12.63	13.27	13.10	13.71	14.18
	12H	12.44	13.00	12.93	13.48	13.96	13.03	13.59	13.52	14.08	14.55
8H	4H	11.72	12.35	12.19	12.80	13.27	11.77	12.41	12.24	12.86	13.33
	6H	12.70	13.22	13.20	13.72	14.20	12.87	13.39	13.37	13.88	14.36
	8H	13.19	13.65	13.71	14.17	14.66	13.46	13.93	13.98	14.44	14.93
	12H	13.69	14.10	14.20	14.59	15.17	14.06	14.47	14.58	14.97	15.54
12H	4H	11.79	12.35	12.28	12.83	13.31	11.85	12.41	12.34	12.89	13.37
	6H	12.87	13.33	13.39	13.85	14.34	13.03	13.50	13.55	14.01	14.51
	8H	13.50	13.91	14.02	14.41	14.98	13.74	14.16	14.26	14.65	15.22