

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: P1058024

Luminaire Tested: S122RDRP-S485D950-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058024  
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-S485D950-X4F0-XX-UDD-BVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

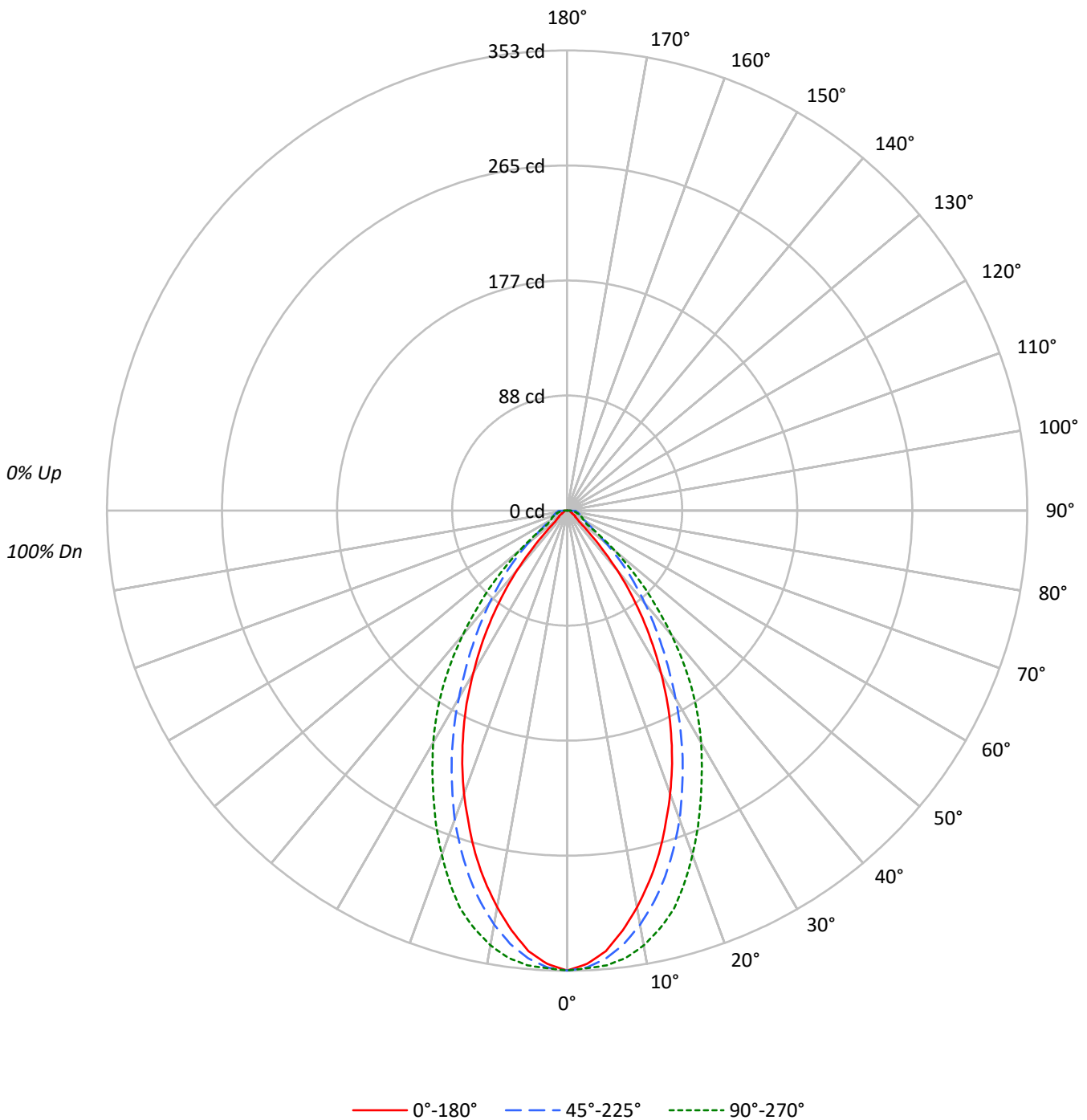
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 380.3 lumens  
Efficiency: N/A  
Efficacy: 19.4 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): 19.6  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42

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

	0°	45°	90°
0°	6510	6510	6510
5°	6285	6385	6485
10°	5788	6041	6344
15°	5204	5551	6042
20°	4538	4950	5520
25°	3840	4265	4939
30°	3068	3543	4379
35°	2268	2847	3760
40°	1433	2231	2997
45°	564	1675	2205
50°	290	1125	1358
55°	238	740	608
60°	173	598	550
65°	148	559	559
70°	146	583	545
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°	32.3	8.5
10°-20°	81.5	21.4
20°-30°	96.9	25.5
30°-40°	80.6	21.2
40°-50°	45.0	11.8
50°-60°	18.2	4.8
60°-70°	11.6	3.1
70°-80°	8.7	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°	210.6	55.4
0°-40°	291.2	76.6
0°-60°	354.4	93.2
0°-90°	380.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	380.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	353	353	353	353	353	
5°	339	345	345	347	350	31
15°	272	280	291	306	316	76
25°	189	196	210	226	243	86
35°	101	110	126	147	167	62
45°	22	36	64	75	84	20
55°	7	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°	352.8	352.8	352.8	352.8	352.8
2.5°	348.1	353.5	350.8	350.8	351.4
5°	339.3	345.4	344.7	347.4	350.1
7.5°	325.1	331.8	335.2	341.3	346.0
10°	308.9	316.3	322.4	331.8	338.6
12.5°	291.3	298.7	307.5	319.7	328.5
15°	272.4	280.5	290.6	305.5	316.3
17.5°	251.4	260.2	271.7	287.9	299.4
20°	231.1	239.9	252.1	268.3	281.1
22.5°	210.2	217.6	230.5	246.7	262.2
25°	188.6	196.0	209.5	225.7	242.6
27.5°	166.9	174.4	187.9	204.8	223.7
30°	144.0	152.1	166.3	185.2	205.5
32.5°	122.3	130.4	145.3	166.3	186.5
35°	100.7	110.2	126.4	147.3	166.9
37.5°	79.7	90.6	108.8	128.4	146.0
40°	59.5	71.0	92.6	109.5	124.4
42.5°	39.2	52.7	77.7	91.9	103.4
45°	21.6	36.5	64.2	75.0	84.5
47.5°	12.2	23.7	50.7	59.5	64.9
50°	10.1	17.6	39.2	45.3	47.3
52.5°	8.1	16.2	29.7	33.1	31.8
55°	7.4	15.5	23.0	22.3	18.9
57.5°	6.1	15.5	18.2	16.2	16.2
60°	4.7	14.9	16.2	14.2	14.9
62.5°	4.1	14.2	14.9	13.5	13.5
65°	3.4	13.5	12.8	12.2	12.8
67.5°	2.7	12.2	12.2	11.5	11.5
70°	2.7	11.5	10.8	10.1	10.1
72.5°	2.7	10.1	10.1	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	7.4
80°	2.7	7.4	8.1	7.4	6.1
82.5°	2.7	6.8	7.4	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	4.86	6.08	5.22	6.39	6.71	5.94	7.16	6.31	7.47	7.79
	3H	6.20	7.28	6.58	7.62	7.98	7.97	9.06	8.35	9.39	9.75
	4H	6.78	7.79	7.18	8.14	8.52	8.93	9.94	9.33	10.29	10.68
	6H	7.34	8.27	7.76	8.64	9.04	9.87	10.80	10.29	11.18	11.57
	8H	7.67	8.55	8.10	8.94	9.34	10.33	11.20	10.76	11.60	12.00
	12H	7.97	8.81	8.40	9.20	9.63	10.75	11.59	11.19	11.98	12.41
4H	2H	5.82	6.83	6.23	7.18	7.57	6.62	7.63	7.02	7.98	8.36
	3H	7.86	8.69	8.27	9.09	9.50	8.90	9.73	9.31	10.14	10.54
	4H	8.94	9.69	9.38	10.11	10.56	10.05	10.80	10.49	11.22	11.67
	6H	9.81	10.46	10.28	10.91	11.37	11.22	11.87	11.69	12.32	12.78
	8H	10.23	10.83	10.70	11.28	11.75	11.78	12.39	12.26	12.84	13.31
	12H	10.60	11.14	11.09	11.62	12.10	12.34	12.87	12.82	13.35	13.83
8H	4H	9.72	10.32	10.19	10.77	11.24	10.61	11.21	11.08	11.66	12.13
	6H	11.05	11.55	11.56	12.05	12.53	12.06	12.55	12.56	13.05	13.53
	8H	11.77	12.22	12.30	12.74	13.23	12.82	13.27	13.35	13.79	14.28
	12H	12.47	12.86	12.98	13.35	13.93	13.62	14.01	14.14	14.51	15.08
12H	4H	9.87	10.41	10.36	10.89	11.37	10.71	11.25	11.20	11.73	12.21
	6H	11.37	11.82	11.90	12.33	12.83	12.28	12.73	12.81	13.24	13.74
	8H	12.28	12.67	12.80	13.17	13.74	13.19	13.59	13.71	14.08	14.66