

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: P1057952

Luminaire Tested: S122RDRP-S485D830-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057952  
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-S485D830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

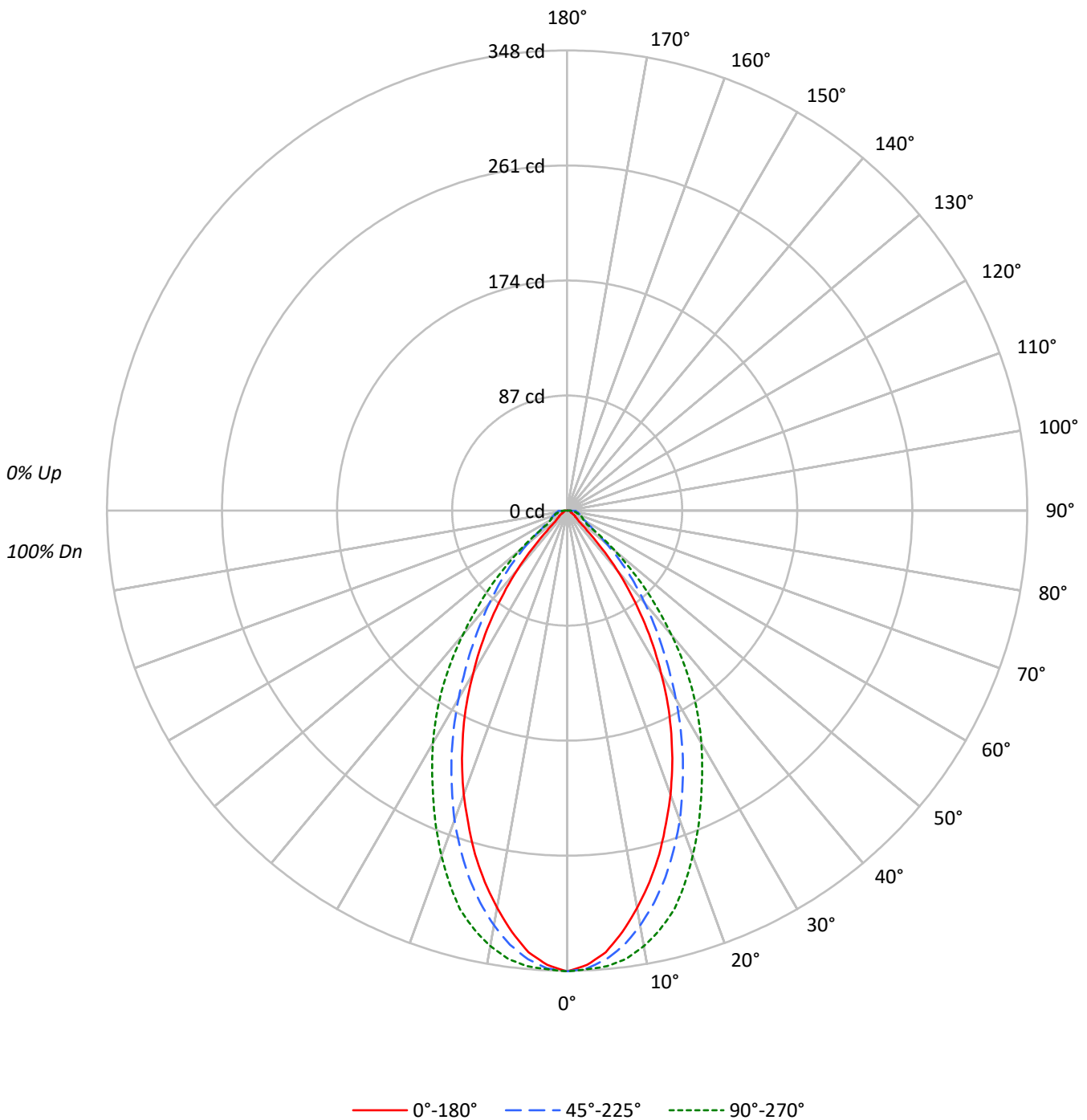
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 375.7 lumens  
Efficiency: N/A  
Efficacy: 19.2 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°	6431	6431	6431
5°	6209	6307	6407
10°	5717	5968	6268
15°	5141	5485	5970
20°	4485	4892	5455
25°	3793	4215	4880
30°	3030	3501	4325
35°	2241	2814	3715
40°	1416	2204	2960
45°	558	1654	2179
50°	287	1111	1341
55°	235	730	602
60°	173	590	543
65°	144	555	555
70°	146	577	540
75°	192	663	570
80°	287	850	638
85°	423	1419	847

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 87.5°  
 Luminance: 2834 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.9	8.5
10°-20°	80.5	21.4
20°-30°	95.7	25.5
30°-40°	79.6	21.2
40°-50°	44.5	11.8
50°-60°	18.0	4.8
60°-70°	11.5	3.1
70°-80°	8.6	2.3
80°-90°	5.5	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°	208.1	55.4
0°-40°	287.7	76.6
0°-60°	350.1	93.2
0°-90°	375.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	375.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	348	348	348	348	348	
5°	335	341	340	343	346	31
15°	269	277	287	302	312	75
25°	186	194	207	223	240	85
35°	100	109	125	146	165	62
45°	21	36	63	74	84	20
55°	7	15	23	22	19	6
65°	3	13	13	12	13	3
75°	3	9	9	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°	348.5	348.5	348.5	348.5	348.5
2.5°	343.9	349.2	346.5	346.5	347.2
5°	335.2	341.2	340.5	343.2	345.9
7.5°	321.2	327.8	331.2	337.2	341.9
10°	305.1	312.5	318.5	327.8	334.5
12.5°	287.8	295.1	303.8	315.8	324.5
15°	269.1	277.1	287.1	301.8	312.5
17.5°	248.4	257.1	268.4	284.4	295.8
20°	228.4	237.0	249.1	265.1	277.8
22.5°	207.7	215.0	227.7	243.7	259.1
25°	186.3	193.6	207.0	223.0	239.7
27.5°	164.9	172.3	185.6	202.3	221.0
30°	142.2	150.2	164.3	183.0	203.0
32.5°	120.9	128.9	143.6	164.3	184.3
35°	99.5	108.8	124.9	145.6	164.9
37.5°	78.8	89.5	107.5	126.9	144.2
40°	58.8	70.1	91.5	108.2	122.9
42.5°	38.7	52.1	76.8	90.8	102.2
45°	21.4	36.1	63.4	74.1	83.5
47.5°	12.0	23.4	50.1	58.8	64.1
50°	10.0	17.4	38.7	44.7	46.7
52.5°	8.0	16.0	29.4	32.7	31.4
55°	7.3	15.4	22.7	22.0	18.7
57.5°	6.0	15.4	18.0	16.0	16.0
60°	4.7	14.7	16.0	14.0	14.7
62.5°	4.0	14.0	14.7	13.4	13.4
65°	3.3	13.4	12.7	12.0	12.7
67.5°	2.7	12.0	12.0	11.4	11.4
70°	2.7	11.4	10.7	10.0	10.0
72.5°	2.7	10.0	10.0	9.3	9.3
75°	2.7	9.3	9.3	8.7	8.0
77.5°	2.7	8.0	8.7	8.0	7.3
80°	2.7	7.3	8.0	7.3	6.0
82.5°	2.7	6.7	7.3	6.7	5.3
85°	2.0	6.0	6.7	6.0	4.0
87.5°	2.0	6.0	6.7	5.3	3.3
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	4.85	6.07	5.21	6.38	6.70	5.90	7.12	6.26	7.43	7.74
	3H	6.18	7.27	6.56	7.60	7.96	7.94	9.02	8.32	9.35	9.72
	4H	6.75	7.76	7.16	8.12	8.50	8.89	9.90	9.29	10.25	10.64
	6H	7.32	8.25	7.74	8.62	9.02	9.83	10.76	10.25	11.13	11.52
	8H	7.65	8.53	8.08	8.92	9.33	10.28	11.15	10.71	11.55	11.95
	12H	7.96	8.80	8.39	9.18	9.61	10.70	11.54	11.13	11.92	12.35
4H	2H	5.81	6.82	6.21	7.17	7.56	6.58	7.59	6.98	7.94	8.32
	3H	7.84	8.67	8.25	9.07	9.48	8.87	9.70	9.28	10.10	10.51
	4H	8.91	9.65	9.34	10.08	10.52	10.01	10.76	10.45	11.18	11.63
	6H	9.78	10.42	10.24	10.87	11.34	11.18	11.82	11.64	12.27	12.74
	8H	10.19	10.80	10.66	11.25	11.72	11.74	12.34	12.21	12.79	13.26
	12H	10.57	11.11	11.06	11.59	12.07	12.28	12.81	12.77	13.30	13.77
8H	4H	9.67	10.28	10.15	10.73	11.20	10.56	11.17	11.03	11.62	12.09
	6H	11.01	11.51	11.51	12.00	12.49	12.01	12.51	12.51	13.00	13.49
	8H	11.73	12.18	12.26	12.69	13.19	12.77	13.22	13.30	13.74	14.23
	12H	12.42	12.82	12.94	13.31	13.89	13.56	13.95	14.08	14.45	15.02
12H	4H	9.83	10.36	10.32	10.85	11.32	10.67	11.20	11.16	11.69	12.16
	6H	11.33	11.78	11.85	12.29	12.79	12.24	12.68	12.76	13.20	13.69
	8H	12.24	12.63	12.75	13.13	13.70	13.14	13.54	13.66	14.03	14.60