

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: P1058357

Luminaire Tested: S122RDRP-H485D830-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058357  
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-H485D830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

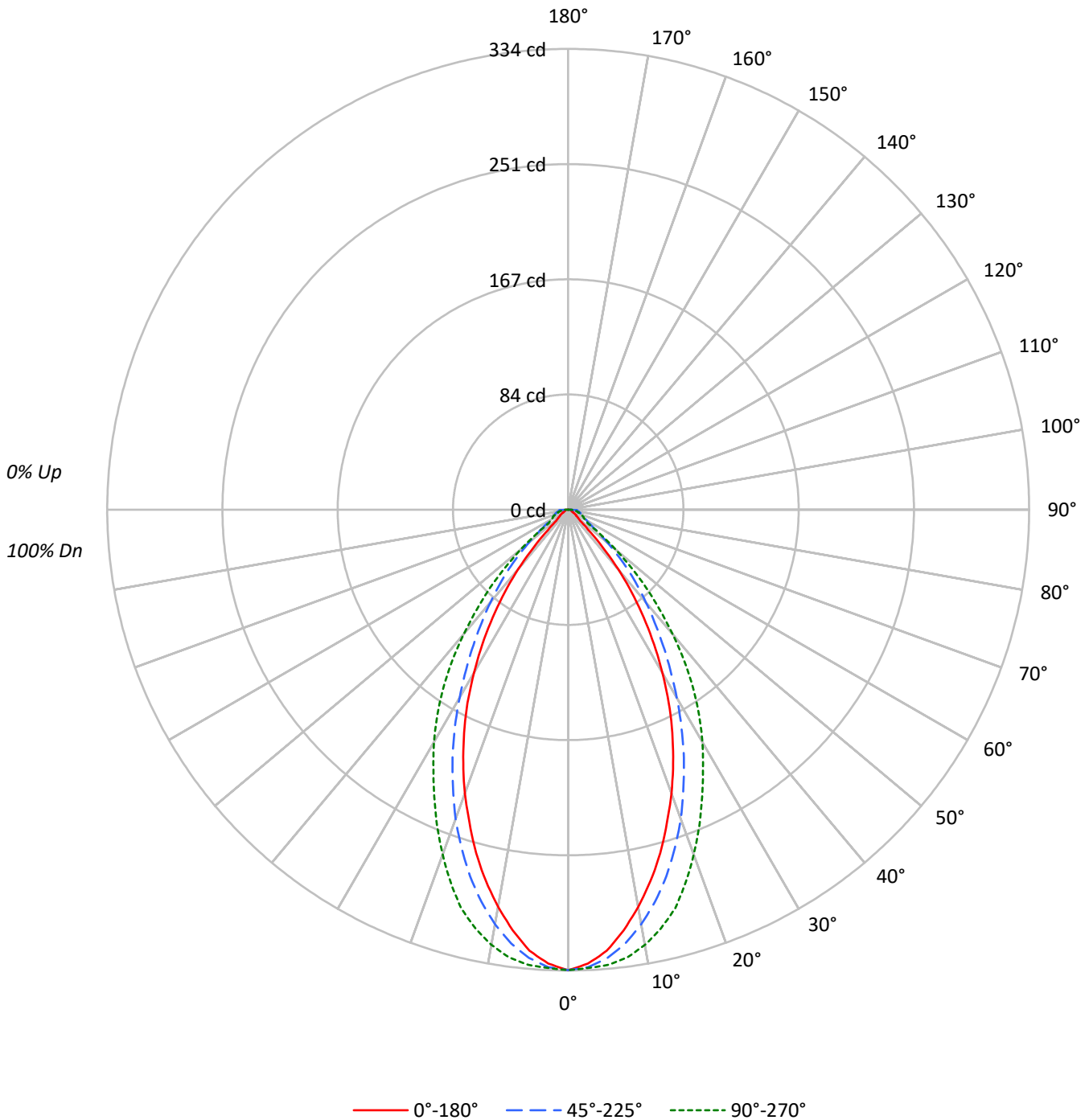
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 359.8 lumens  
Efficiency: N/A  
Efficacy: 20.7 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	60	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°	6158	6158	6158
5°	5944	6040	6135
10°	5475	5715	6002
15°	4923	5252	5716
20°	4295	4683	5223
25°	3632	4035	4673
30°	2902	3352	4142
35°	2147	2694	3557
40°	1356	2110	2833
45°	535	1584	2085
50°	276	1065	1286
55°	225	698	576
60°	166	565	520
65°	140	528	528
70°	140	550	518
75°	185	642	549
80°	276	818	616
85°	402	1355	805

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 87.5°  
 Luminance: 2707 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.5	8.5
10°-20°	77.1	21.4
20°-30°	91.6	25.5
30°-40°	76.2	21.2
40°-50°	42.6	11.8
50°-60°	17.2	4.8
60°-70°	11.0	3.1
70°-80°	8.3	2.3
80°-90°	5.3	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°	199.3	55.4
0°-40°	275.5	76.6
0°-60°	335.2	93.2
0°-90°	359.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	359.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	334	334	334	334	334	
5°	321	327	326	329	331	30
15°	258	265	275	289	299	72
25°	178	185	198	214	230	81
35°	95	104	120	139	158	59
45°	20	34	61	71	80	19
55°	7	15	22	21	18	6
65°	3	13	12	12	12	3
75°	3	9	9	8	8	3
85°	2	6	6	6	4	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	333.7	333.7	333.7	333.7	333.7
2.5°	329.3	334.4	331.8	331.8	332.5
5°	320.9	326.7	326.1	328.6	331.2
7.5°	307.5	313.9	317.1	322.9	327.3
10°	292.2	299.2	305.0	313.9	320.3
12.5°	275.6	282.6	290.9	302.4	310.7
15°	257.7	265.3	274.9	289.0	299.2
17.5°	237.8	246.1	257.0	272.4	283.2
20°	218.7	227.0	238.5	253.8	266.0
22.5°	198.8	205.9	218.0	233.4	248.1
25°	178.4	185.4	198.2	213.5	229.5
27.5°	157.9	164.9	177.7	193.7	211.6
30°	136.2	143.9	157.3	175.2	194.4
32.5°	115.7	123.4	137.5	157.3	176.5
35°	95.3	104.2	119.6	139.4	157.9
37.5°	75.4	85.7	102.9	121.5	138.1
40°	56.3	67.1	87.6	103.6	117.6
42.5°	37.1	49.9	73.5	87.0	97.8
45°	20.5	34.5	60.7	71.0	79.9
47.5°	11.5	22.4	48.0	56.3	61.4
50°	9.6	16.6	37.1	42.8	44.8
52.5°	7.7	15.3	28.1	31.3	30.0
55°	7.0	14.7	21.7	21.1	17.9
57.5°	5.8	14.7	17.3	15.3	15.3
60°	4.5	14.1	15.3	13.4	14.1
62.5°	3.8	13.4	14.1	12.8	12.8
65°	3.2	12.8	12.1	11.5	12.1
67.5°	2.6	11.5	11.5	10.9	10.9
70°	2.6	10.9	10.2	9.6	9.6
72.5°	2.6	9.6	9.6	9.0	9.0
75°	2.6	9.0	9.0	8.3	7.7
77.5°	2.6	7.7	8.3	7.7	7.0
80°	2.6	7.0	7.7	7.0	5.8
82.5°	2.6	6.4	7.0	6.4	5.1
85°	1.9	5.8	6.4	5.8	3.8
87.5°	1.9	5.8	6.4	5.1	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	4.68	5.90	5.05	6.22	6.53	5.74	6.96	6.10	7.27	7.58
	3H	6.02	7.11	6.41	7.44	7.81	7.78	8.87	8.16	9.20	9.56
	4H	6.61	7.62	7.01	7.97	8.35	8.74	9.75	9.15	10.11	10.49
	6H	7.18	8.11	7.60	8.48	8.88	9.69	10.62	10.11	10.99	11.39
	8H	7.51	8.39	7.94	8.78	9.19	10.14	11.02	10.57	11.41	11.82
	12H	7.82	8.66	8.25	9.04	9.47	10.56	11.40	10.99	11.78	12.21
4H	2H	5.64	6.65	6.04	7.00	7.39	6.41	7.42	6.82	7.77	8.16
	3H	7.68	8.51	8.09	8.91	9.32	8.71	9.54	9.13	9.95	10.35
	4H	8.77	9.52	9.20	9.94	10.38	9.86	10.61	10.30	11.03	11.48
	6H	9.64	10.29	10.11	10.74	11.20	11.04	11.68	11.50	12.13	12.60
	8H	10.06	10.66	10.53	11.11	11.58	11.60	12.20	12.07	12.65	13.12
	12H	10.44	10.97	10.92	11.45	11.93	12.14	12.67	12.62	13.16	13.63
8H	4H	9.54	10.14	10.01	10.59	11.06	10.42	11.02	10.89	11.47	11.94
	6H	10.88	11.37	11.38	11.87	12.35	11.87	12.37	12.38	12.87	13.35
	8H	11.59	12.04	12.12	12.56	13.05	12.63	13.08	13.16	13.60	14.09
	12H	12.29	12.68	12.80	13.18	13.75	13.42	13.82	13.94	14.31	14.88
12H	4H	9.69	10.23	10.18	10.71	11.19	10.53	11.06	11.01	11.54	12.02
	6H	11.20	11.64	11.72	12.16	12.65	12.10	12.54	12.62	13.06	13.55
	8H	12.10	12.49	12.61	12.99	13.56	13.00	13.40	13.52	13.89	14.46