

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: P1058404

Luminaire Tested: S122RDR-H485D930-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058404  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H485D930-X4F0-XX-UDD-SVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

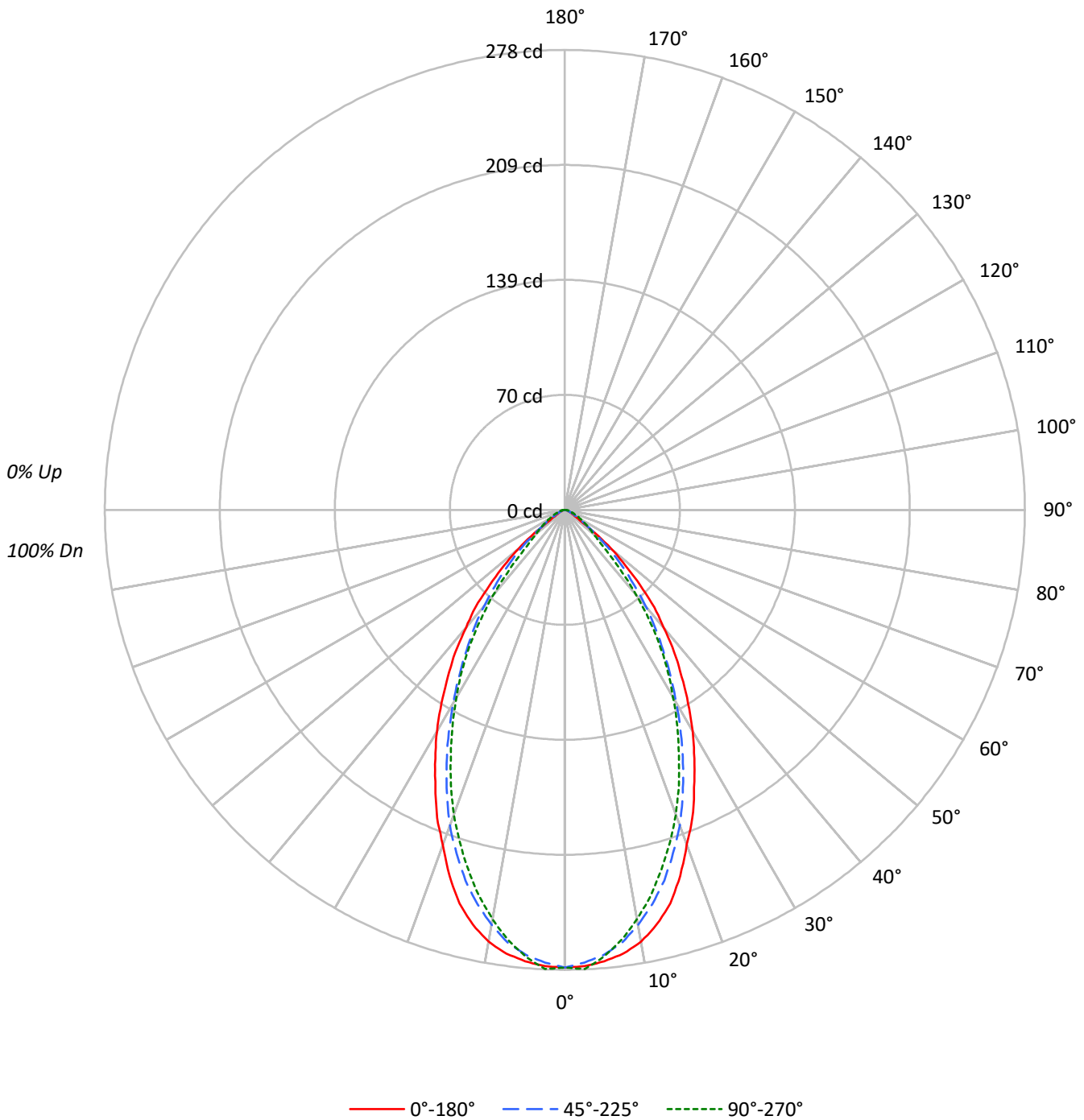
Lumens per Lamp: N/A  
Luminaire Lumens: 297.6 lumens  
Efficiency: N/A  
Efficacy: 17.1 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct

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				100
1	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92				92
2	106	101	96	92	104	99	95	91	96	92	89	92	90	87	90	87	85	84				84
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76				76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70				70
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64				64
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59				59
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54				54
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50				50
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47				47
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	43				43

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

	0°	45°	90°
0°	5106	5106	5106
5°	5073	5001	5022
10°	4967	4770	4709
15°	4705	4430	4304
20°	4230	3990	3849
25°	3767	3441	3317
30°	3294	2870	2789
35°	2773	2327	2253
40°	2235	1836	1624
45°	1673	1326	966
50°	1045	855	634
55°	354	463	515
60°	203	284	406
65°	144	192	314
70°	119	151	237
75°	78	121	200
80°	64	117	181
85°	0	0	127

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1673 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.5	8.6
10°-20°	65.3	21.9
20°-30°	78.6	26.4
30°-40°	67.2	22.6
40°-50°	39.3	13.2
50°-60°	14.2	4.8
60°-70°	5.1	1.7
70°-80°	2.0	0.7
80°-90°	0.4	0.1
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°	169.4	56.9
0°-40°	236.5	79.5
0°-60°	290.1	97.5
0°-90°	297.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	297.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	277	277	277	277	277	
5°	274	274	270	271	271	26
15°	246	242	232	228	225	68
25°	185	177	169	166	163	85
35°	123	114	103	102	100	77
45°	64	57	51	42	37	49
55°	11	16	14	15	16	14
65°	3	4	4	6	7	4
75°	1	2	2	2	3	1
85°	0	0	0	1	1	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	276.7	276.7	276.7	276.7	276.7
2.5°	276.1	276.7	273.9	276.7	277.8
5°	273.9	274.4	270.0	271.1	271.1
7.5°	270.6	270.0	264.0	262.9	262.3
10°	265.1	263.4	254.6	252.9	251.3
12.5°	256.8	253.5	244.1	241.3	239.1
15°	246.3	242.4	231.9	227.5	225.3
17.5°	231.9	227.5	217.6	213.2	210.9
20°	215.4	210.9	203.2	198.2	196.0
22.5°	201.6	194.4	186.1	182.8	180.0
25°	185.0	177.3	169.0	166.2	162.9
27.5°	169.5	160.1	151.9	149.6	146.9
30°	154.6	144.7	134.7	134.7	130.9
32.5°	138.6	129.2	118.7	118.2	116.0
35°	123.1	113.8	103.3	102.2	100.0
37.5°	108.8	99.4	89.5	86.1	83.4
40°	92.8	84.5	76.2	70.7	67.4
42.5°	80.1	70.7	62.4	55.8	51.4
45°	64.1	57.4	50.8	42.5	37.0
47.5°	49.7	45.3	39.8	30.4	27.6
50°	36.4	34.2	29.8	22.6	22.1
52.5°	23.2	24.3	21.5	17.7	19.3
55°	11.0	15.5	14.4	14.9	16.0
57.5°	7.2	7.7	10.5	12.1	13.3
60°	5.5	5.5	7.7	9.9	11.0
62.5°	4.4	4.4	6.1	8.3	8.8
65°	3.3	3.9	4.4	6.1	7.2
67.5°	2.8	2.8	3.3	5.0	5.5
70°	2.2	2.2	2.8	3.9	4.4
72.5°	1.7	1.7	2.2	3.3	3.3
75°	1.1	1.7	1.7	2.2	2.8
77.5°	1.1	1.1	1.1	1.7	2.2
80°	0.6	0.6	1.1	1.1	1.7
82.5°	0.6	0.6	0.6	0.6	1.1
85°	0.0	0.0	0.0	0.6	0.6
87.5°	0.0	0.0	0.0	0.0	0.0
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	1.53	2.69	1.89	3.00	3.32	4.92	6.09	5.29	6.40	6.72
	3H	2.06	3.08	2.44	3.41	3.78	5.66	6.68	6.04	7.01	7.38
	4H	2.20	3.15	2.61	3.50	3.89	5.88	6.83	6.28	7.18	7.57
	6H	2.28	3.15	2.70	3.52	3.92	6.03	6.90	6.45	7.28	7.67
	8H	2.29	3.11	2.73	3.50	3.91	6.07	6.89	6.50	7.28	7.69
	12H	2.26	3.04	2.70	3.43	3.86	6.07	6.85	6.51	7.24	7.67
4H	2H	1.84	2.78	2.24	3.14	3.52	4.89	5.84	5.30	6.19	6.58
	3H	2.51	3.28	2.92	3.68	4.09	5.78	6.54	6.19	6.95	7.36
	4H	2.76	3.45	3.20	3.87	4.32	6.06	6.74	6.50	7.16	7.61
	6H	2.89	3.48	3.36	3.93	4.40	6.29	6.88	6.76	7.33	7.80
	8H	2.92	3.47	3.39	3.92	4.39	6.34	6.89	6.81	7.34	7.81
	12H	2.89	3.37	3.38	3.85	4.33	6.37	6.85	6.86	7.33	7.81
8H	4H	2.87	3.42	3.35	3.87	4.34	5.99	6.54	6.46	6.99	7.46
	6H	3.05	3.49	3.56	3.99	4.48	6.26	6.70	6.77	7.20	7.68
	8H	3.12	3.51	3.65	4.03	4.53	6.33	6.72	6.86	7.24	7.74
	12H	3.10	3.45	3.62	3.94	4.52	6.40	6.75	6.92	7.25	7.82
12H	4H	2.86	3.34	3.35	3.82	4.30	5.94	6.42	6.43	6.91	7.38
	6H	3.05	3.45	3.58	3.97	4.46	6.21	6.61	6.74	7.13	7.62
	8H	3.15	3.50	3.67	3.99	4.57	6.30	6.65	6.82	7.15	7.73