

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: P1058360

Luminaire Tested: S122RDR-H485D830-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058360  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-59)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H485D830-X4F0-XX-UDD-SVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

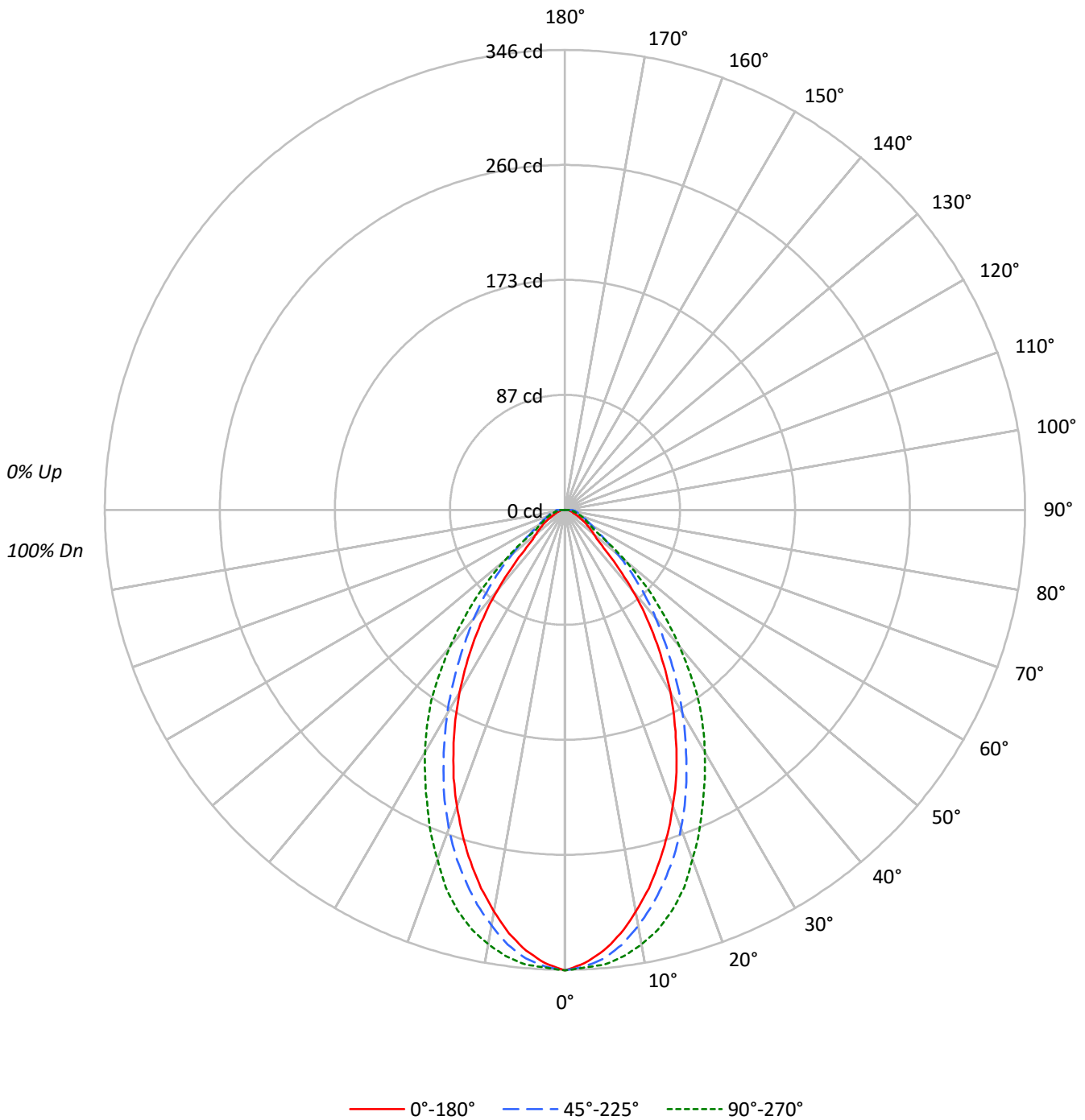
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 418.0 lumens  
Efficiency: N/A  
Efficacy: 24.0 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 0.97 / 0.94  
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									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	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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89													89															
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80													80															
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72													72															
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65													65															
5	86	75	68	63	84	74	68	63	72	66	62	71	65	61	69	64	61	59													59															
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54													54															
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50													50															
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46													46															
9	67	56	49	45	66	56	49	44	55	49	44	54	48	44	53	48	44	42													42															
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39													39															

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

	0°	45°	90°
0°	6394	6394	6394
5°	6168	6276	6359
10°	5749	5953	6217
15°	5238	5519	5960
20°	4658	5009	5498
25°	4035	4400	4984
30°	3377	3773	4481
35°	2665	3124	3947
40°	1910	2556	3233
45°	1117	2017	2503
50°	807	1467	1688
55°	679	1049	885
60°	543	849	757
65°	445	755	699
70°	378	723	653
75°	364	777	635
80°	404	946	680
85°	677	1482	953

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2503 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.8	7.6
10°-20°	81.3	19.5
20°-30°	100.0	23.9
30°-40°	88.4	21.1
40°-50°	56.4	13.5
50°-60°	27.5	6.6
60°-70°	16.4	3.9
70°-80°	10.5	2.5
80°-90°	5.8	1.4
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°	213.0	51.0
0°-40°	301.4	72.1
0°-60°	385.4	92.2
0°-90°	418.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	418.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	346	346	346	346	346	
5°	333	340	339	340	343	31
15°	274	282	289	302	312	77
25°	198	205	216	230	245	91
35°	118	125	139	158	175	73
45°	43	55	77	87	96	36
55°	21	28	33	31	28	19
65°	10	19	17	16	16	10
75°	5	12	11	10	9	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°	346.5	346.5	346.5	346.5	346.5
2.5°	341.4	347.7	343.9	343.9	344.6
5°	333.0	340.1	338.8	340.1	343.3
7.5°	321.5	328.6	329.8	335.0	338.8
10°	306.8	313.9	317.7	326.0	331.8
12.5°	291.5	298.5	304.3	315.1	323.5
15°	274.2	281.9	288.9	301.7	312.0
17.5°	256.3	264.0	273.0	285.7	297.9
20°	237.2	244.2	255.1	267.2	280.0
22.5°	218.6	225.0	236.5	248.0	263.4
25°	198.2	205.2	216.1	229.5	244.8
27.5°	178.3	185.4	196.2	211.6	227.6
30°	158.5	164.9	177.1	193.1	210.3
32.5°	138.1	144.5	157.9	175.2	193.1
35°	118.3	124.7	138.7	157.9	175.2
37.5°	98.4	105.5	121.5	139.4	154.1
40°	79.3	87.6	106.1	121.5	134.2
42.5°	60.1	71.6	91.4	104.2	114.4
45°	42.8	55.0	77.3	86.9	95.9
47.5°	32.6	42.2	63.9	71.0	76.7
50°	28.1	34.5	51.1	56.3	58.8
52.5°	24.3	30.7	40.9	42.8	41.6
55°	21.1	28.1	32.6	30.7	27.5
57.5°	17.9	26.2	26.8	23.0	23.7
60°	14.7	23.7	23.0	19.8	20.5
62.5°	12.1	21.7	19.8	17.9	17.9
65°	10.2	19.2	17.3	16.0	16.0
67.5°	8.3	17.3	15.3	14.1	14.1
70°	7.0	15.3	13.4	12.1	12.1
72.5°	6.4	13.4	12.1	10.9	10.9
75°	5.1	11.5	10.9	9.6	8.9
77.5°	4.5	9.6	9.6	8.9	7.7
80°	3.8	8.3	8.9	7.7	6.4
82.5°	3.8	7.7	7.7	7.0	5.1
85°	3.2	6.4	7.0	6.4	4.5
87.5°	1.9	5.8	5.8	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	8.47	9.75	8.84	10.06	10.38	8.00	9.28	8.36	9.59	9.91
	3H	9.65	10.79	10.03	11.12	11.48	9.56	10.70	9.94	11.03	11.39
	4H	10.08	11.14	10.48	11.49	11.87	10.24	11.30	10.65	11.66	12.04
	6H	10.42	11.40	10.84	11.77	12.16	10.89	11.87	11.31	12.24	12.64
	8H	10.62	11.54	11.05	11.93	12.34	11.18	12.11	11.61	12.50	12.90
	12H	10.83	11.72	11.27	12.10	12.53	11.50	12.38	11.93	12.77	13.20
4H	2H	8.98	10.04	9.38	10.39	10.77	8.60	9.66	9.00	10.01	10.40
	3H	10.62	11.49	11.03	11.90	12.30	10.40	11.27	10.81	11.68	12.08
	4H	11.38	12.17	11.82	12.59	13.03	11.24	12.02	11.67	12.44	12.89
	6H	11.98	12.66	12.45	13.11	13.58	12.10	12.78	12.56	13.22	13.69
	8H	12.28	12.92	12.75	13.37	13.84	12.49	13.12	12.95	13.57	14.04
	12H	12.60	13.16	13.08	13.64	14.12	12.92	13.49	13.41	13.97	14.44
8H	4H	11.80	12.44	12.27	12.88	13.35	11.70	12.33	12.17	12.78	13.25
	6H	12.75	13.27	13.25	13.77	14.25	12.81	13.33	13.31	13.82	14.31
	8H	13.30	13.77	13.82	14.28	14.77	13.38	13.85	13.90	14.37	14.86
	12H	13.86	14.28	14.38	14.77	15.34	14.05	14.47	14.57	14.96	15.53
12H	4H	11.87	12.43	12.36	12.92	13.39	11.78	12.34	12.27	12.83	13.30
	6H	12.93	13.40	13.45	13.92	14.41	12.99	13.46	13.51	13.98	14.47
	8H	13.63	14.04	14.14	14.54	15.11	13.70	14.11	14.21	14.61	15.18