

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: P1058361

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058361  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)  
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-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

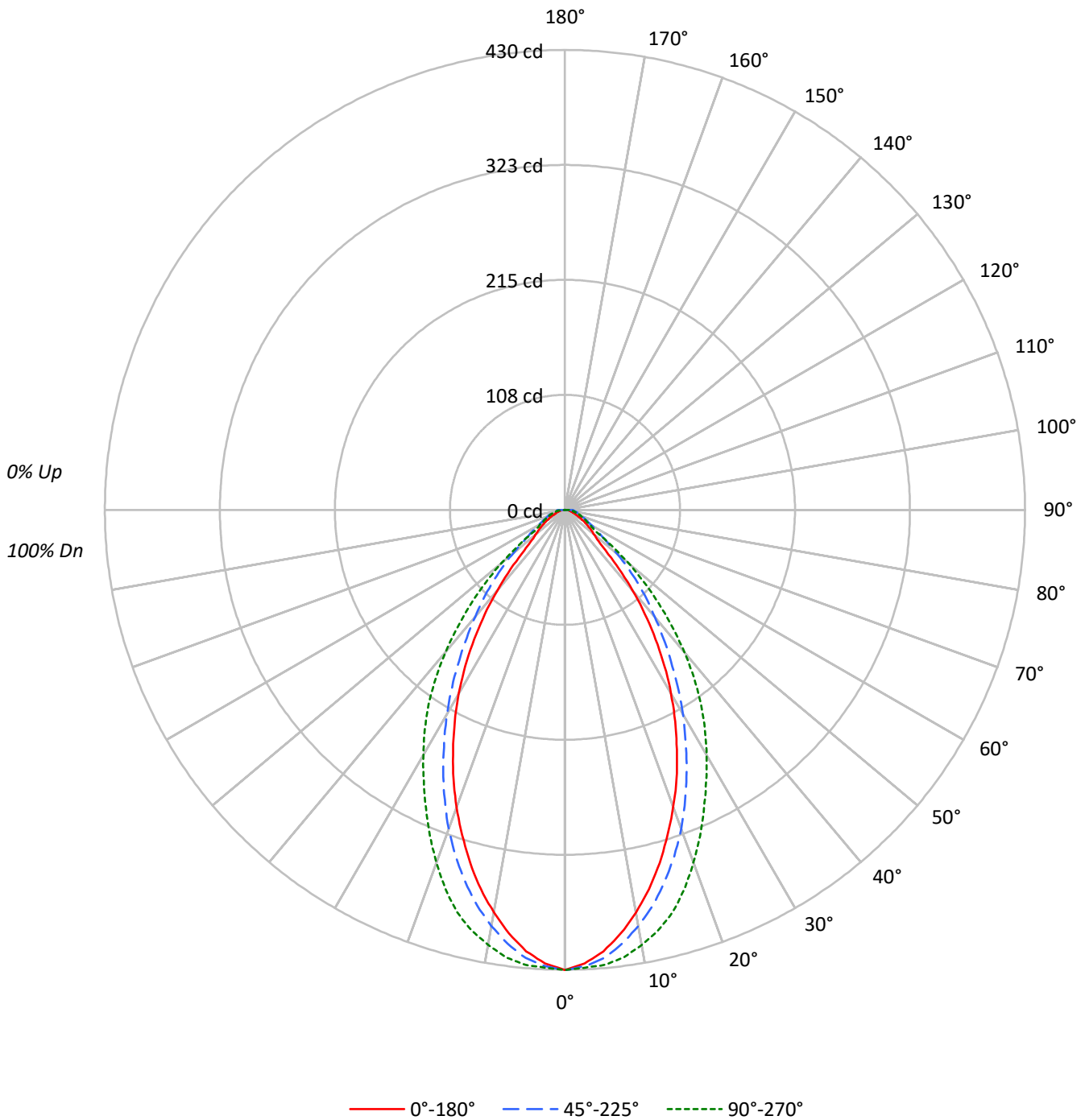
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 521.9 lumens  
Efficiency: N/A  
Efficacy: 30.0 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39

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

	0°	45°	90°
0°	7940	7940	7940
5°	7674	7793	7911
10°	7163	7403	7738
15°	6533	6875	7439
20°	5812	6239	6892
25°	5037	5481	6261
30°	4223	4700	5640
35°	3327	3888	4996
40°	2373	3141	4174
45°	1401	2487	3236
50°	1010	1800	2202
55°	843	1296	1110
60°	683	1037	945
65°	559	921	865
70°	486	896	825
75°	456	913	820
80°	478	1084	882
85°	677	1757	1080

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3236 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.5	7.6
10°-20°	101.4	19.4
20°-30°	125.1	24.0
30°-40°	111.3	21.3
40°-50°	71.0	13.6
50°-60°	34.1	6.5
60°-70°	20.0	3.8
70°-80°	12.8	2.4
80°-90°	6.8	1.3
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°	265.9	51.0
0°-40°	377.2	72.3
0°-60°	482.3	92.4
0°-90°	521.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	521.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	430	430	430	430	430	
5°	414	422	421	423	427	39
15°	342	350	360	377	389	95
25°	247	257	269	288	308	113
35°	148	159	173	199	222	92
45°	54	70	95	111	124	45
55°	26	34	40	39	34	24
65°	13	23	21	19	20	13
75°	6	14	13	12	12	7
85°	3	8	8	7	5	3
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	430.3	430.3	430.3	430.3	430.3
2.5°	424.5	431.6	427.1	427.1	428.4
5°	414.3	422.0	420.7	423.2	427.1
7.5°	399.6	407.9	409.2	416.2	422.0
10°	382.3	391.3	395.1	405.3	413.0
12.5°	363.1	372.1	379.1	391.9	402.8
15°	342.0	350.4	359.9	376.6	389.4
17.5°	319.0	329.9	339.5	356.7	371.5
20°	296.0	306.2	317.7	334.4	351.0
22.5°	272.4	281.9	293.5	310.7	329.9
25°	247.4	257.0	269.2	288.3	307.5
27.5°	223.1	232.7	244.2	265.3	285.8
30°	198.2	207.8	220.6	242.3	264.7
32.5°	173.3	183.5	196.3	219.9	243.6
35°	147.7	159.2	172.6	198.8	221.8
37.5°	122.8	134.3	150.9	176.5	198.2
40°	98.5	111.9	130.4	153.4	173.3
42.5°	74.8	89.5	112.5	131.1	148.3
45°	53.7	69.7	95.3	110.6	124.0
47.5°	40.9	52.4	78.6	90.8	100.4
50°	35.2	42.2	62.7	71.6	76.7
52.5°	30.7	37.1	49.9	54.3	54.3
55°	26.2	33.9	40.3	39.0	34.5
57.5°	22.4	30.7	33.2	28.1	29.4
60°	18.5	28.1	28.1	24.9	25.6
62.5°	15.3	26.2	24.3	21.7	22.4
65°	12.8	23.0	21.1	19.2	19.8
67.5°	10.2	20.5	18.5	17.3	17.3
70°	9.0	18.5	16.6	15.3	15.3
72.5°	7.7	16.0	14.7	13.4	13.4
75°	6.4	14.1	12.8	12.1	11.5
77.5°	5.8	12.1	11.5	10.2	9.6
80°	4.5	10.2	10.2	9.6	8.3
82.5°	3.8	9.0	9.0	8.3	7.0
85°	3.2	7.7	8.3	7.0	5.1
87.5°	2.6	7.0	7.0	5.8	3.8
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	8.87	10.15	9.24	10.46	10.78	8.65	9.93	9.02	10.24	10.56
	3H	10.10	11.24	10.48	11.57	11.93	10.25	11.38	10.63	11.71	12.08
	4H	10.56	11.62	10.96	11.97	12.35	10.96	12.02	11.37	12.37	12.76
	6H	10.94	11.91	11.36	12.28	12.68	11.62	12.59	12.03	12.96	13.35
	8H	11.09	12.02	11.52	12.41	12.81	11.94	12.87	12.37	13.26	13.66
	12H	11.25	12.13	11.68	12.52	12.95	12.24	13.12	12.67	13.51	13.94
4H	2H	9.42	10.48	9.82	10.83	11.21	9.25	10.31	9.65	10.66	11.04
	3H	11.11	11.99	11.53	12.39	12.79	11.09	11.96	11.50	12.36	12.76
	4H	11.91	12.69	12.35	13.11	13.56	11.96	12.74	12.39	13.16	13.60
	6H	12.56	13.23	13.02	13.68	14.15	12.80	13.48	13.26	13.93	14.39
	8H	12.80	13.44	13.27	13.88	14.36	13.22	13.86	13.69	14.31	14.78
	12H	13.05	13.61	13.54	14.09	14.57	13.62	14.18	14.11	14.67	15.14
8H	4H	12.33	12.96	12.80	13.41	13.88	12.37	13.01	12.84	13.45	13.93
	6H	13.30	13.82	13.81	14.32	14.80	13.46	13.98	13.96	14.48	14.96
	8H	13.80	14.27	14.32	14.78	15.27	14.05	14.52	14.57	15.03	15.53
	12H	14.30	14.72	14.82	15.21	15.78	14.65	15.06	15.17	15.56	16.13
12H	4H	12.40	12.96	12.88	13.44	13.91	12.45	13.01	12.94	13.49	13.97
	6H	13.47	13.94	14.00	14.46	14.95	13.63	14.09	14.15	14.61	15.10
	8H	14.11	14.53	14.63	15.02	15.59	14.34	14.75	14.85	15.24	15.82