

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: P1058217

Luminaire Tested: S122RDR-H1005D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058217  
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-H1005D840-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: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

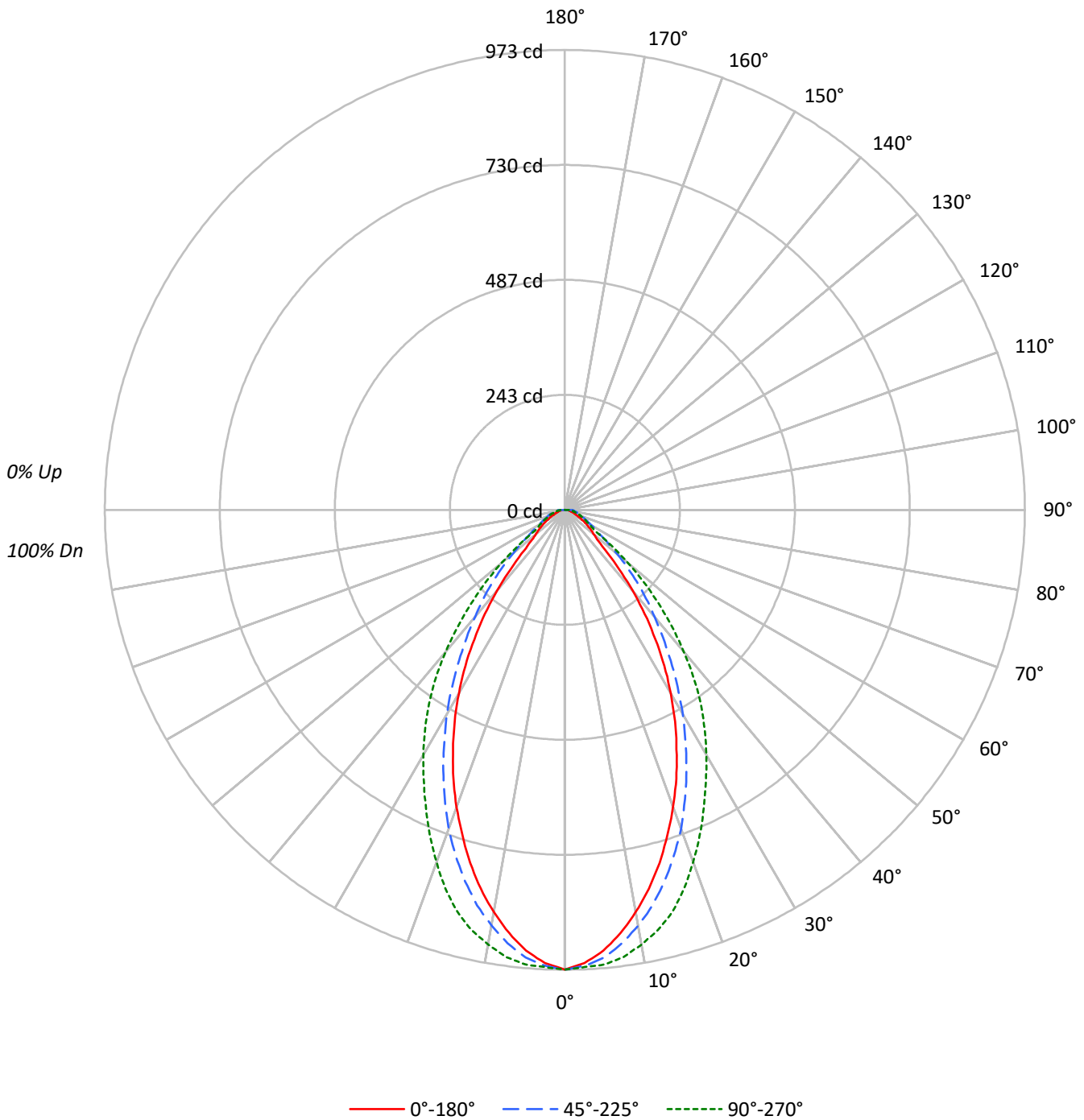
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1179.8 lumens  
Efficiency: N/A  
Efficacy: 32.3 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): 36.5  
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°	17949	17949	17949
5°	17347	17615	17882
10°	16194	16736	17493
15°	14771	15544	16815
20°	13141	14105	15582
25°	11387	12389	14154
30°	9546	10624	12748
35°	7522	8790	11297
40°	5362	7101	9435
45°	3168	5618	7317
50°	2282	4065	4978
55°	1908	2931	2509
60°	1546	2347	2133
65°	1262	2083	1956
70°	1090	2029	1872
75°	1034	2060	1854
80°	1073	2455	1998
85°	1524	3980	2456

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7317 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.2	7.6
10°-20°	229.2	19.4
20°-30°	282.7	24.0
30°-40°	251.5	21.3
40°-50°	160.5	13.6
50°-60°	77.1	6.5
60°-70°	45.2	3.8
70°-80°	28.9	2.4
80°-90°	15.4	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°	601.2	51.0
0°-40°	852.7	72.3
0°-60°	1090.3	92.4
0°-90°	1179.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1179.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	973	973	973	973	973	
5°	936	954	951	957	965	87
15°	773	792	814	851	880	216
25°	559	581	608	652	695	256
35°	334	360	390	450	502	207
45°	121	158	215	250	280	102
55°	59	77	91	88	78	54
65°	29	52	48	43	45	29
75°	14	32	29	28	26	16
85°	7	17	19	16	12	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	972.7	972.7	972.7	972.7	972.7
2.5°	959.7	975.6	965.4	965.4	968.3
5°	936.5	953.9	951.0	956.8	965.4
7.5°	903.3	922.1	925.0	940.9	953.9
10°	864.3	884.5	893.2	916.3	933.6
12.5°	820.9	841.1	857.0	886.0	910.5
15°	773.2	792.0	813.7	851.3	880.2
17.5°	721.2	745.8	767.4	806.5	839.7
20°	669.2	692.3	718.3	755.9	793.5
22.5°	615.7	637.4	663.4	702.4	745.8
25°	559.3	581.0	608.5	651.8	695.2
27.5°	504.4	526.1	552.1	599.8	646.0
30°	448.0	469.7	498.6	547.8	598.3
32.5°	391.7	414.8	443.7	497.2	550.6
35°	333.9	359.9	390.2	449.5	501.5
37.5°	277.5	303.5	341.1	398.9	448.0
40°	222.6	252.9	294.8	346.9	391.7
42.5°	169.1	202.3	254.4	296.3	335.3
45°	121.4	157.5	215.3	250.0	280.4
47.5°	92.5	118.5	177.8	205.2	226.9
50°	79.5	95.4	141.6	161.9	173.4
52.5°	69.4	83.8	112.7	122.8	122.8
55°	59.3	76.6	91.1	88.2	78.0
57.5°	50.6	69.4	75.2	63.6	66.5
60°	41.9	63.6	63.6	56.4	57.8
62.5°	34.7	59.3	54.9	49.1	50.6
65°	28.9	52.0	47.7	43.4	44.8
67.5°	23.1	46.2	41.9	39.0	39.0
70°	20.2	41.9	37.6	34.7	34.7
72.5°	17.3	36.1	33.2	30.4	30.4
75°	14.5	31.8	28.9	27.5	26.0
77.5°	13.0	27.5	26.0	23.1	21.7
80°	10.1	23.1	23.1	21.7	18.8
82.5°	8.7	20.2	20.2	18.8	15.9
85°	7.2	17.3	18.8	15.9	11.6
87.5°	5.8	15.9	15.9	13.0	8.7
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	11.71	12.98	12.07	13.30	13.61	11.50	12.77	11.86	13.08	13.40
	3H	12.93	14.07	13.32	14.40	14.77	13.09	14.22	13.47	14.55	14.92
	4H	13.39	14.45	13.79	14.80	15.18	13.80	14.86	14.21	15.21	15.60
	6H	13.77	14.74	14.18	15.11	15.51	14.46	15.43	14.87	15.80	16.20
	8H	13.92	14.84	14.35	15.24	15.64	14.79	15.71	15.22	16.10	16.50
	12H	14.08	14.96	14.51	15.34	15.78	15.08	15.97	15.52	16.35	16.78
4H	2H	12.25	13.31	12.66	13.66	14.05	12.09	13.15	12.49	13.50	13.88
	3H	13.95	14.82	14.36	15.22	15.63	13.92	14.80	14.34	15.20	15.60
	4H	14.74	15.52	15.18	15.94	16.39	14.80	15.58	15.23	16.00	16.44
	6H	15.39	16.06	15.85	16.51	16.98	15.64	16.32	16.11	16.77	17.23
	8H	15.64	16.27	16.10	16.72	17.19	16.07	16.70	16.54	17.15	17.62
	12H	15.88	16.44	16.37	16.92	17.40	16.47	17.03	16.96	17.51	17.99
8H	4H	15.16	15.79	15.63	16.24	16.71	15.22	15.85	15.69	16.30	16.77
	6H	16.14	16.66	16.64	17.15	17.63	16.30	16.82	16.80	17.32	17.80
	8H	16.63	17.09	17.15	17.61	18.10	16.89	17.36	17.42	17.88	18.37
	12H	17.13	17.54	17.64	18.04	18.61	17.50	17.91	18.01	18.40	18.98
12H	4H	15.23	15.79	15.71	16.27	16.75	15.29	15.85	15.78	16.33	16.81
	6H	16.31	16.77	16.83	17.29	17.78	16.47	16.93	16.99	17.45	17.94
	8H	16.94	17.35	17.46	17.85	18.42	17.18	17.59	17.69	18.09	18.66