

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: P1058541

Luminaire Tested: S122RDR-H865D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058541  
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-H865D840-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: -

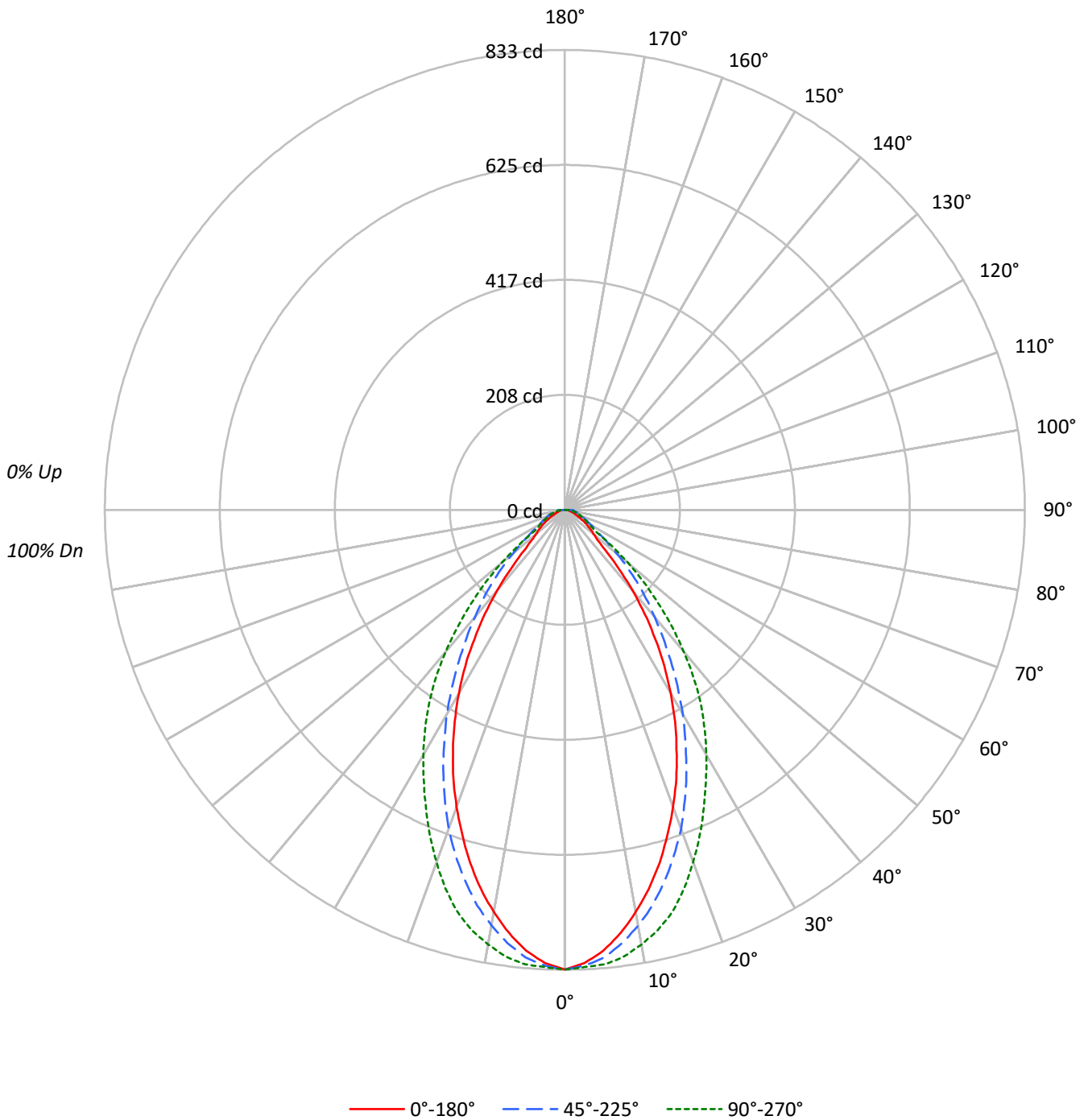
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1009.9 lumens  
Efficiency: N/A  
Efficacy: 32.4 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): 31.2  
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
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	102	99	97	98	96	94	94	93	91	89		89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80		80
3	97	89	83	78	95	88	82	77	85	80	76	83	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	67	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	45	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°	15364	15364	15364
5°	14850	15080	15307
10°	13862	14326	14975
15°	12645	13306	14394
20°	11248	12075	13337
25°	9748	10606	12116
30°	8171	9094	10913
35°	6438	7524	9671
40°	4589	6080	8077
45°	2711	4809	6263
50°	1952	3479	4263
55°	1631	2506	2149
60°	1325	2008	1827
65°	1078	1781	1677
70°	933	1737	1602
75°	884	1761	1590
80°	924	2104	1711
85°	1313	3409	2096

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6263 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.4	7.6
10°-20°	196.2	19.4
20°-30°	242.0	24.0
30°-40°	215.3	21.3
40°-50°	137.4	13.6
50°-60°	66.0	6.5
60°-70°	38.7	3.8
70°-80°	24.7	2.4
80°-90°	13.2	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°	514.6	51.0
0°-40°	729.9	72.3
0°-60°	933.3	92.4
0°-90°	1009.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1009.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	833	833	833	833	833	
5°	802	816	814	819	826	75
15°	662	678	696	729	754	185
25°	479	497	521	558	595	219
35°	286	308	334	385	429	178
45°	104	135	184	214	240	87
55°	51	66	78	76	67	46
65°	25	44	41	37	38	25
75°	12	27	25	24	22	14
85°	6	15	16	14	10	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	832.6	832.6	832.6	832.6	832.6
2.5°	821.5	835.1	826.4	826.4	828.9
5°	801.7	816.5	814.1	819.0	826.4
7.5°	773.2	789.3	791.8	805.4	816.5
10°	739.8	757.2	764.6	784.4	799.2
12.5°	702.7	720.0	733.7	758.4	779.4
15°	661.9	678.0	696.5	728.7	753.5
17.5°	617.4	638.4	657.0	690.4	718.8
20°	572.8	592.6	614.9	647.1	679.2
22.5°	527.0	545.6	567.9	601.3	638.4
25°	478.8	497.4	520.9	558.0	595.1
27.5°	431.8	450.3	472.6	513.4	553.0
30°	383.5	402.1	426.8	468.9	512.2
32.5°	335.3	355.1	379.8	425.6	471.4
35°	285.8	308.1	334.0	384.8	429.3
37.5°	237.5	259.8	292.0	341.5	383.5
40°	190.5	216.5	252.4	296.9	335.3
42.5°	144.8	173.2	217.7	253.6	287.0
45°	103.9	134.9	184.3	214.0	240.0
47.5°	79.2	101.5	152.2	175.7	194.2
50°	68.0	81.7	121.2	138.6	148.5
52.5°	59.4	71.8	96.5	105.2	105.2
55°	50.7	65.6	77.9	75.5	66.8
57.5°	43.3	59.4	64.3	54.4	56.9
60°	35.9	54.4	54.4	48.3	49.5
62.5°	29.7	50.7	47.0	42.1	43.3
65°	24.7	44.5	40.8	37.1	38.4
67.5°	19.8	39.6	35.9	33.4	33.4
70°	17.3	35.9	32.2	29.7	29.7
72.5°	14.8	30.9	28.5	26.0	26.0
75°	12.4	27.2	24.7	23.5	22.3
77.5°	11.1	23.5	22.3	19.8	18.6
80°	8.7	19.8	19.8	18.6	16.1
82.5°	7.4	17.3	17.3	16.1	13.6
85°	6.2	14.8	16.1	13.6	9.9
87.5°	4.9	13.6	13.6	11.1	7.4
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	11.16	12.44	11.53	12.75	13.07	10.95	12.23	11.32	12.54	12.85
	3H	12.40	13.53	12.78	13.86	14.23	12.54	13.68	12.92	14.01	14.37
	4H	12.85	13.91	13.25	14.26	14.64	13.26	14.32	13.67	14.67	15.06
	6H	13.23	14.20	13.64	14.57	14.97	13.92	14.89	14.33	15.26	15.66
	8H	13.38	14.30	13.81	14.70	15.10	14.25	15.17	14.68	15.56	15.96
	12H	13.54	14.42	13.97	14.81	15.24	14.54	15.43	14.98	15.81	16.24
4H	2H	11.71	12.77	12.12	13.12	13.51	11.54	12.60	11.95	12.95	13.34
	3H	13.41	14.28	13.82	14.68	15.09	13.38	14.25	13.79	14.66	15.06
	4H	14.20	14.98	14.64	15.40	15.85	14.26	15.04	14.69	15.46	15.90
	6H	14.85	15.52	15.31	15.97	16.44	15.10	15.78	15.57	16.23	16.69
	8H	15.09	15.73	15.56	16.18	16.65	15.53	16.16	16.00	16.61	17.08
	12H	15.34	15.90	15.83	16.38	16.86	15.93	16.49	16.42	16.97	17.45
8H	4H	14.62	15.25	15.09	15.70	16.17	14.67	15.31	15.14	15.76	16.23
	6H	15.60	16.12	16.10	16.61	17.10	15.76	16.28	16.27	16.78	17.26
	8H	16.09	16.56	16.61	17.07	17.56	16.36	16.82	16.88	17.34	17.83
	12H	16.59	17.00	17.10	17.50	18.07	16.96	17.37	17.47	17.86	18.44
12H	4H	14.69	15.25	15.17	15.73	16.21	14.75	15.31	15.24	15.79	16.27
	6H	15.77	16.23	16.29	16.75	17.24	15.93	16.39	16.45	16.91	17.40
	8H	16.40	16.81	16.92	17.31	17.88	16.64	17.05	17.15	17.55	18.12