

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058138

Luminaire Tested: S122RDRP-S865D840-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058138  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S865D840-X4F0-XX-UDD-WVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

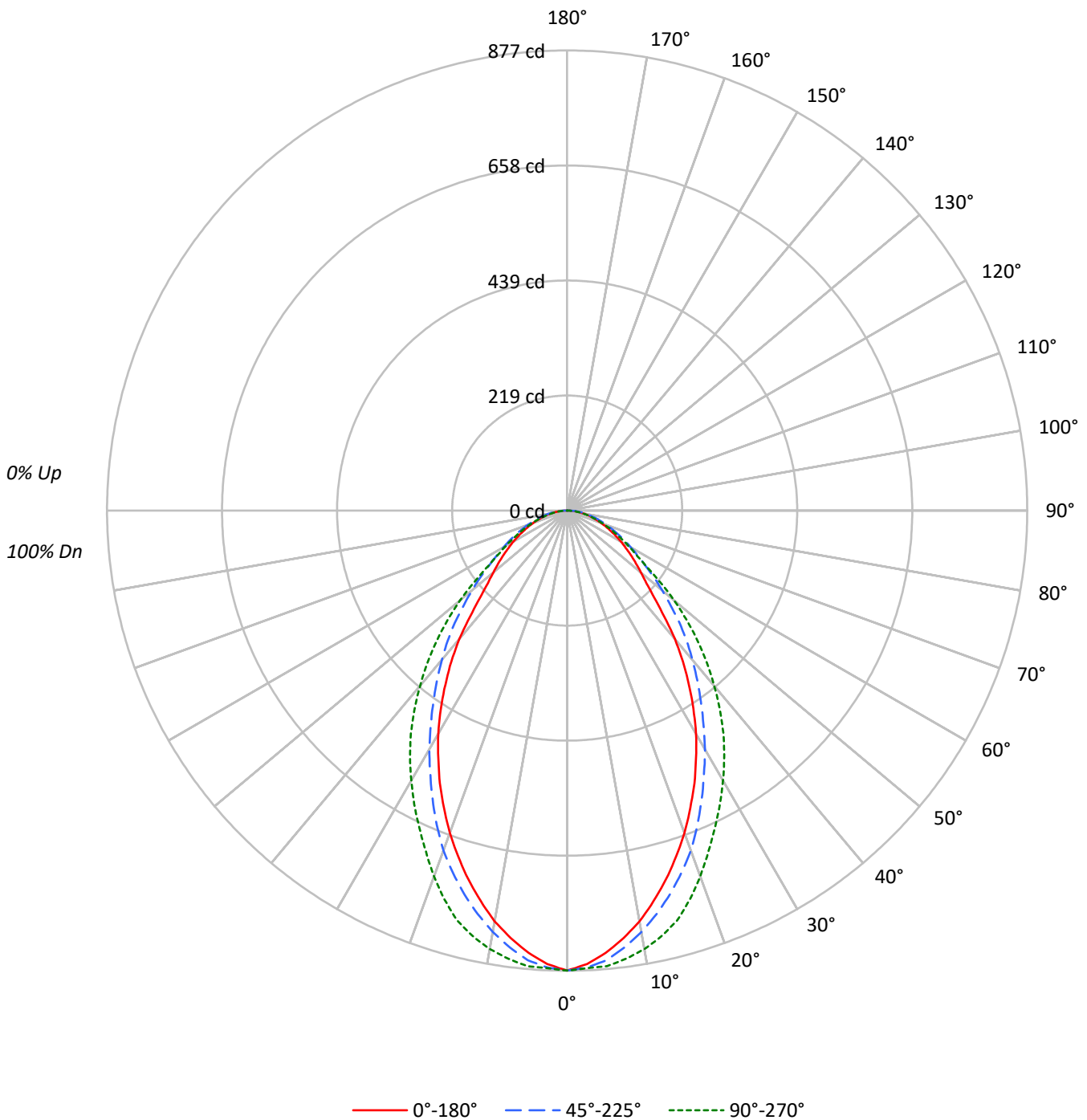
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1427.3 lumens  
Efficiency: N/A  
Efficacy: 40.8 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89					87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	79	84	80	78					76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68					66				
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61					59				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54					52				
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49					47				
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44					43				
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41					39				
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37					36				
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34					33				

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

	0°	45°	90°
0°	16175	16175	16175
5°	15670	15930	16143
10°	14898	15280	15900
15°	13902	14461	15457
20°	12840	13540	14565
25°	11683	12354	13572
30°	10464	11195	12659
35°	9114	10002	11693
40°	7691	8949	10512
45°	6109	7902	9196
50°	5259	6792	7633
55°	4787	5813	5852
60°	4366	5163	4978
65°	3999	4667	4388
70°	3706	4322	3911
75°	3444	4078	3444
80°	3241	3921	3114
85°	3239	4044	2689

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9196 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.9	5.7
10°-20°	213.9	15.0
20°-30°	281.5	19.7
30°-40°	283.1	19.8
40°-50°	229.4	16.1
50°-60°	158.0	11.1
60°-70°	103.4	7.2
70°-80°	57.6	4.0
80°-90°	19.5	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°	576.3	40.4
0°-40°	859.4	60.2
0°-60°	1246.8	87.4
0°-90°	1427.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1427.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	877	877	877	877	877	
5°	846	863	860	864	872	79
15°	728	746	757	785	809	204
25°	574	589	607	634	667	263
35°	405	424	444	483	519	252
45°	234	261	303	330	352	185
55°	149	165	181	184	182	133
65°	92	109	107	102	100	91
75°	48	60	57	51	48	52
85°	15	20	19	16	13	17
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	876.6	876.6	876.6	876.6	876.6
2.5°	865.1	880.4	871.5	871.5	872.7
5°	846.0	862.6	860.0	863.8	871.5
7.5°	821.8	839.7	839.7	851.1	861.3
10°	795.1	812.9	815.5	833.3	848.6
12.5°	762.1	779.9	787.5	810.4	830.8
15°	727.7	745.5	757.0	785.0	809.1
17.5°	690.8	708.6	723.9	753.1	777.3
20°	653.9	670.5	689.5	715.0	741.7
22.5°	613.2	631.0	648.8	673.0	703.5
25°	573.8	589.0	606.8	633.6	666.6
27.5°	531.8	548.3	564.9	596.7	631.0
30°	491.1	507.6	525.4	558.5	594.1
32.5°	447.8	465.6	483.4	520.3	557.2
35°	404.6	423.6	444.0	483.4	519.1
37.5°	362.6	382.9	407.1	447.8	478.3
40°	319.3	341.0	371.5	407.1	436.4
42.5°	273.5	300.2	337.1	367.7	394.4
45°	234.1	260.8	302.8	329.5	352.4
47.5°	204.8	226.5	267.2	290.1	309.1
50°	183.2	199.7	236.6	253.2	265.9
52.5°	165.4	181.9	207.4	218.8	222.6
55°	148.8	165.4	180.7	184.5	181.9
57.5°	132.3	150.1	159.0	155.2	155.2
60°	118.3	137.4	139.9	134.9	134.9
62.5°	104.3	123.4	123.4	117.0	117.0
65°	91.6	109.4	106.9	101.8	100.5
67.5°	80.1	96.7	92.9	87.8	86.5
70°	68.7	84.0	80.1	73.8	72.5
72.5°	58.5	72.5	67.4	62.3	59.8
75°	48.3	59.8	57.2	50.9	48.3
77.5°	39.4	48.3	45.8	40.7	38.2
80°	30.5	38.2	36.9	31.8	29.3
82.5°	22.9	29.3	28.0	24.2	20.4
85°	15.3	20.4	19.1	16.5	12.7
87.5°	7.6	14.0	12.7	11.4	6.4
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	16.40	17.84	16.76	18.15	18.47	16.76	18.20	17.12	18.51	18.83
	3H	17.94	19.23	18.32	19.56	19.93	18.11	19.40	18.48	19.72	20.09
	4H	18.51	19.72	18.92	20.07	20.45	18.59	19.80	18.99	20.15	20.53
	6H	18.94	20.06	19.36	20.43	20.82	18.94	20.06	19.36	20.43	20.82
	8H	19.10	20.16	19.53	20.55	20.95	19.06	20.12	19.49	20.51	20.91
	12H	19.21	20.23	19.64	20.61	21.04	19.13	20.15	19.57	20.53	20.96
4H	2H	16.99	18.19	17.39	18.54	18.92	17.27	18.48	17.68	18.83	19.21
	3H	18.81	19.81	19.22	20.21	20.61	18.85	19.85	19.26	20.25	20.65
	4H	19.55	20.46	19.99	20.87	21.31	19.45	20.35	19.88	20.77	21.21
	6H	20.14	20.92	20.60	21.37	21.83	19.93	20.72	20.39	21.16	21.62
	8H	20.35	21.08	20.82	21.53	22.00	20.10	20.83	20.56	21.27	21.74
	12H	20.52	21.17	21.00	21.65	22.12	20.22	20.87	20.70	21.35	21.82
8H	4H	19.84	20.57	20.30	21.02	21.48	19.75	20.48	20.22	20.93	21.40
	6H	20.60	21.20	21.09	21.69	22.17	20.37	20.97	20.87	21.47	21.95
	8H	20.92	21.46	21.44	21.97	22.46	20.62	21.16	21.14	21.67	22.16
	12H	21.21	21.69	21.72	22.18	22.75	20.83	21.31	21.34	21.80	22.37
12H	4H	19.86	20.51	20.34	20.99	21.46	19.79	20.44	20.27	20.92	21.39
	6H	20.65	21.20	21.17	21.71	22.20	20.45	20.99	20.96	21.50	21.99
	8H	21.05	21.53	21.57	22.03	22.59	20.77	21.25	21.28	21.74	22.31