

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: P1058142

Luminaire Tested: S122RDRP-S865D850-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058142  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S865D850-X4F0-XX-UDD-BVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

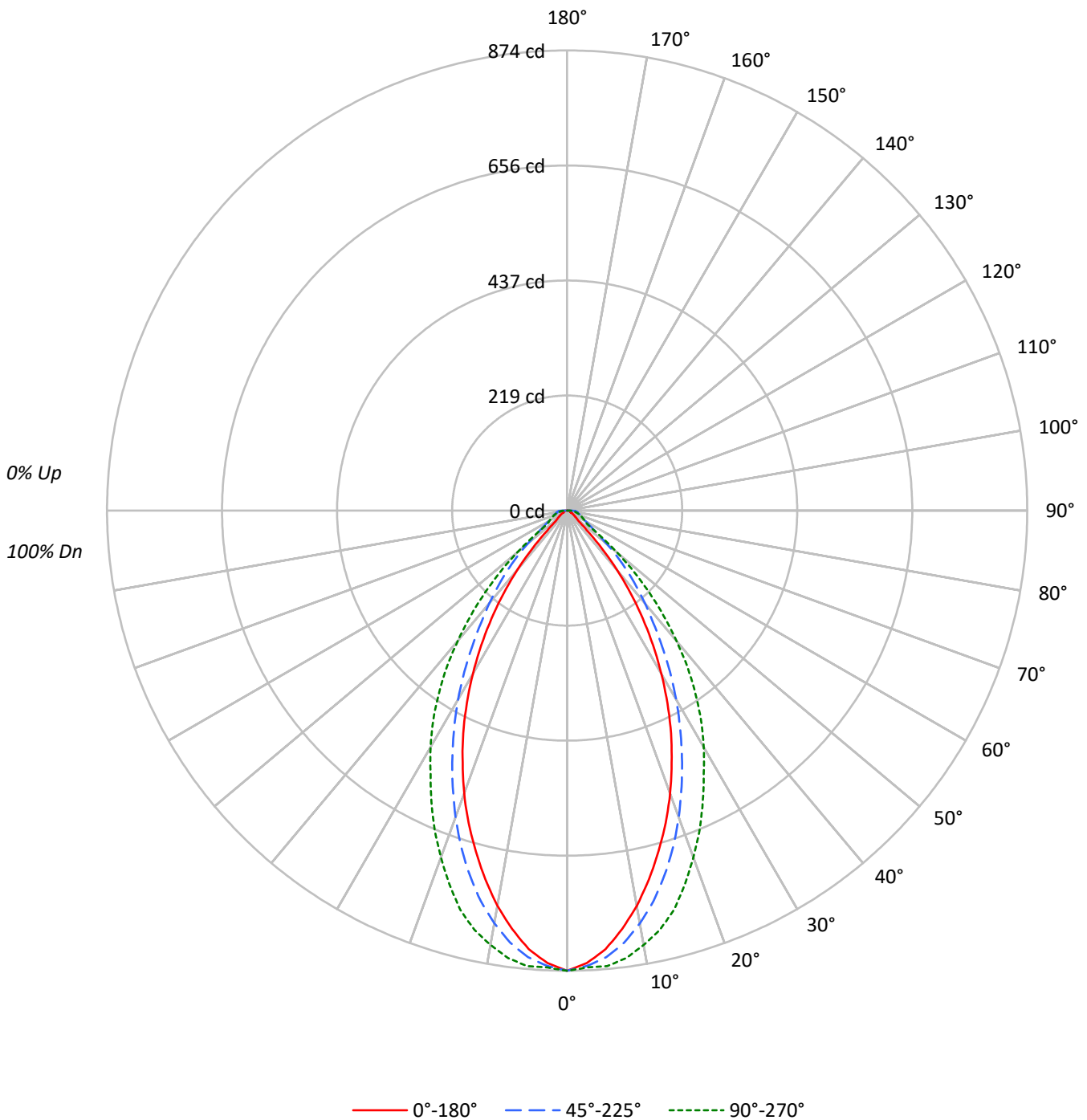
Lumens per Lamp: N/A  
Luminaire Lumens: 951.4 lumens  
Efficiency: N/A  
Efficacy: 27.2 lumens/watt  
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	73
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61
6	82	71	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42

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

	0°	45°	90°
0°	16127	16127	16127
5°	15489	15774	16085
10°	14280	14909	15694
15°	12795	13678	14987
20°	11230	12165	13757
25°	9510	10506	12414
30°	7628	8819	11054
35°	5638	7055	9576
40°	3536	5523	7780
45°	1386	4160	5765
50°	683	2810	3534
55°	540	1843	1573
60°	413	1498	1447
65°	306	1406	1406
70°	378	1435	1435
75°	399	1597	1497
80°	595	2083	1636
85°	1186	3557	2371

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 87.5°  
 Luminance: 6515 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.8	8.4
10°-20°	201.8	21.2
20°-30°	241.4	25.4
30°-40°	203.2	21.4
40°-50°	115.7	12.2
50°-60°	45.6	4.8
60°-70°	28.8	3.0
70°-80°	21.4	2.2
80°-90°	13.6	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°	523.1	55.0
0°-40°	726.3	76.3
0°-60°	887.6	93.3
0°-90°	951.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	951.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	874	874	874	874	874	
5°	836	854	852	861	868	77
15°	670	694	716	758	784	187
25°	467	488	516	569	610	213
35°	250	273	313	380	425	155
45°	53	94	159	200	221	50
55°	17	36	57	59	49	15
65°	7	32	32	31	32	8
75°	6	22	22	21	21	6
85°	6	15	17	15	11	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	874.0	874.0	874.0	874.0	874.0
2.5°	860.0	875.4	865.6	867.0	868.4
5°	836.2	854.4	851.6	861.4	868.4
7.5°	801.3	820.8	827.8	844.6	857.2
10°	762.1	784.5	795.7	822.2	837.6
12.5°	717.4	742.5	759.3	792.9	815.2
15°	669.8	693.6	716.0	757.9	784.5
17.5°	622.3	646.0	669.8	716.0	743.9
20°	571.9	594.3	619.5	668.4	700.6
22.5°	518.8	542.6	567.7	618.1	657.2
25°	467.1	488.0	516.0	569.1	609.7
27.5°	412.5	433.5	464.3	518.8	562.1
30°	358.0	379.0	413.9	469.8	518.8
32.5°	303.4	325.8	363.6	425.1	474.0
35°	250.3	272.7	313.2	380.4	425.1
37.5°	198.6	223.7	268.5	334.2	376.2
40°	146.8	176.2	229.3	288.1	323.0
42.5°	97.9	134.2	193.0	241.9	271.3
45°	53.1	93.7	159.4	200.0	220.9
47.5°	29.4	60.1	127.3	159.4	172.0
50°	23.8	42.0	97.9	121.7	123.1
52.5°	19.6	37.8	72.7	86.7	79.7
55°	16.8	36.4	57.3	58.7	48.9
57.5°	14.0	35.0	47.5	42.0	42.0
60°	11.2	35.0	40.6	37.8	39.2
62.5°	8.4	35.0	36.4	33.6	35.0
65°	7.0	32.2	32.2	30.8	32.2
67.5°	7.0	29.4	29.4	28.0	29.4
70°	7.0	28.0	26.6	26.6	26.6
72.5°	5.6	25.2	25.2	23.8	23.8
75°	5.6	22.4	22.4	21.0	21.0
77.5°	5.6	21.0	21.0	19.6	18.2
80°	5.6	18.2	19.6	18.2	15.4
82.5°	5.6	16.8	18.2	16.8	12.6
85°	5.6	15.4	16.8	15.4	11.2
87.5°	4.2	15.4	15.4	12.6	8.4
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	7.36	8.58	7.72	8.89	9.21	9.38	10.61	9.75	10.92	11.23
	3H	8.90	9.99	9.28	10.32	10.69	11.36	12.44	11.74	12.77	13.14
	4H	9.46	10.47	9.86	10.82	11.21	12.27	13.28	12.68	13.64	14.02
	6H	10.02	10.95	10.43	11.32	11.71	13.15	14.08	13.57	14.46	14.85
	8H	10.31	11.19	10.74	11.58	11.99	13.56	14.44	13.99	14.83	15.24
	12H	10.67	11.51	11.10	11.89	12.33	14.00	14.84	14.43	15.23	15.66
4H	2H	8.55	9.56	8.95	9.91	10.29	10.00	11.02	10.41	11.37	11.75
	3H	10.75	11.58	11.16	11.98	12.39	12.25	13.08	12.66	13.49	13.89
	4H	11.80	12.55	12.24	12.97	13.41	13.32	14.07	13.76	14.49	14.93
	6H	12.69	13.34	13.16	13.79	14.26	14.43	15.08	14.89	15.53	15.99
	8H	13.08	13.69	13.55	14.13	14.61	14.95	15.56	15.42	16.01	16.48
	12H	13.50	14.04	13.99	14.52	14.99	15.53	16.06	16.02	16.55	17.02
8H	4H	12.60	13.21	13.07	13.65	14.13	13.81	14.42	14.28	14.87	15.34
	6H	13.98	14.48	14.49	14.98	15.46	15.21	15.71	15.71	16.20	16.69
	8H	14.70	15.15	15.23	15.66	16.16	15.95	16.40	16.47	16.91	17.40
	12H	15.45	15.85	15.97	16.34	16.91	16.78	17.17	17.30	17.67	18.24
12H	4H	12.76	13.30	13.25	13.78	14.26	13.91	14.45	14.40	14.93	15.41
	6H	14.31	14.76	14.84	15.28	15.77	15.43	15.87	15.95	16.39	16.88
	8H	15.23	15.62	15.75	16.12	16.69	16.31	16.71	16.83	17.20	17.77