

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: P1058143

Luminaire Tested: S122RDRP-S865D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058143  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S865D850-X4F0-XX-UDD-SVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

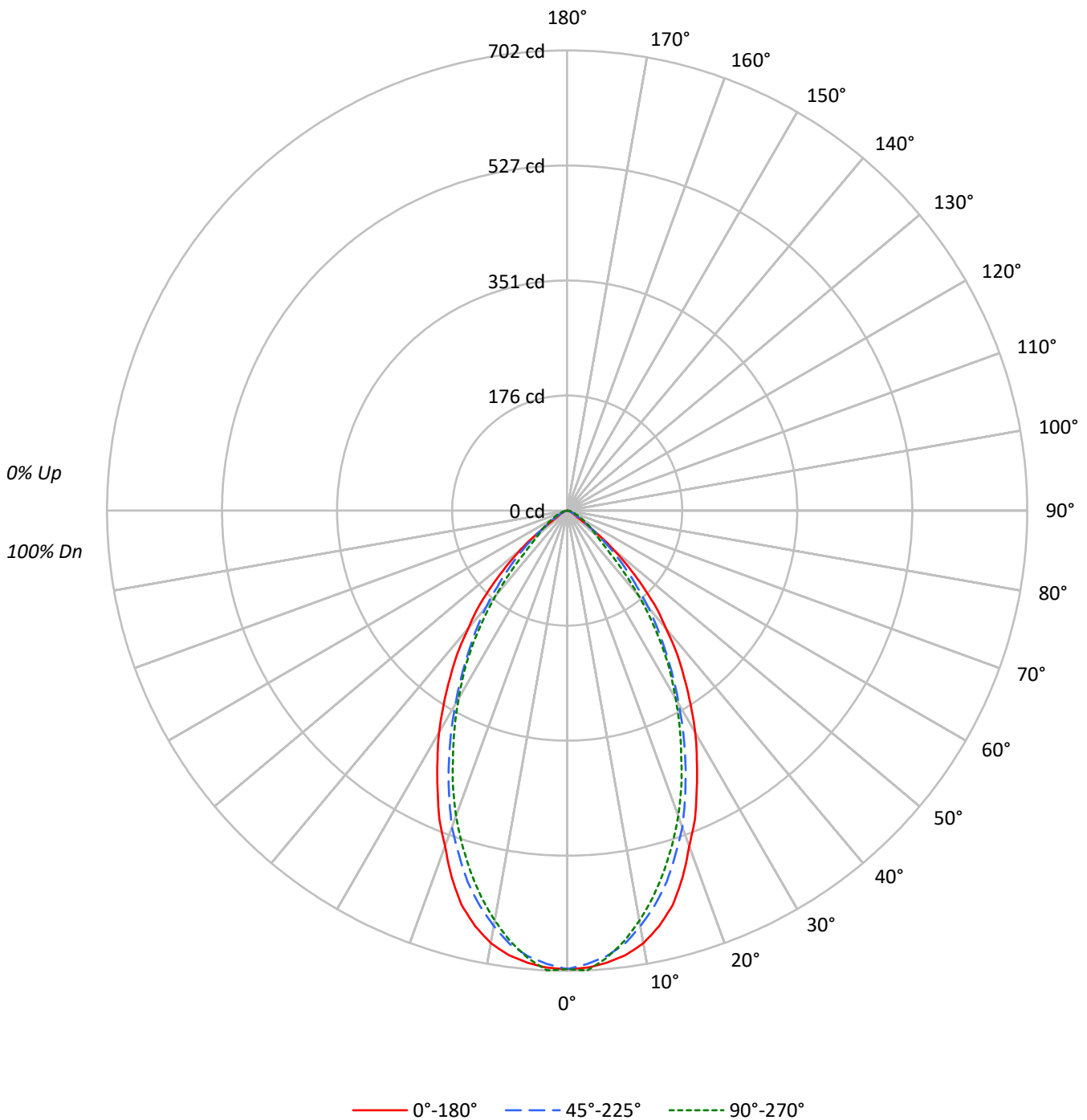
Lumens per Lamp: N/A  
Luminaire Lumens: 752.2 lumens  
Efficiency: N/A  
Efficacy: 21.5 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct

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	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	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92					92			
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84					84			
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76					76			
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70					70			
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64					64			
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59					59			
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54					54			
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50					50			
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47					47			
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44					44			

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

	0°	45°	90°
0°	12906	12906	12906
5°	12825	12644	12696
10°	12556	12059	11902
15°	11894	11200	10881
20°	10690	10087	9732
25°	9522	8698	8384
30°	8329	7257	7051
35°	7012	5882	5692
40°	5649	4639	4102
45°	4225	3351	2440
50°	2644	2165	1602
55°	898	1168	1303
60°	517	720	1030
65°	367	489	790
70°	302	378	604
75°	200	299	499
80°	149	298	446
85°	0	0	296

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4225 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.5	8.6
10°-20°	165.0	21.9
20°-30°	198.7	26.4
30°-40°	169.8	22.6
40°-50°	99.5	13.2
50°-60°	36.0	4.8
60°-70°	12.8	1.7
70°-80°	5.1	0.7
80°-90°	0.9	0.1
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°	428.2	56.9
0°-40°	597.9	79.5
0°-60°	733.4	97.5
0°-90°	752.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	752.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	699	699	699	699	699	
5°	692	694	683	685	685	65
15°	623	613	586	575	570	173
25°	468	448	427	420	412	215
35°	311	288	261	258	253	194
45°	162	145	128	108	94	125
55°	28	39	36	38	40	35
65°	8	10	11	15	18	9
75°	3	4	4	6	7	4
85°	0	0	0	1	1	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	699.4	699.4	699.4	699.4	699.4
2.5°	698.0	699.4	692.4	699.4	702.2
5°	692.4	693.8	682.6	685.4	685.4
7.5°	684.0	682.6	667.3	664.5	663.1
10°	670.1	665.9	643.6	639.4	635.2
12.5°	649.1	640.8	617.0	610.0	604.5
15°	622.6	612.8	586.3	575.1	569.6
17.5°	586.3	575.1	550.0	538.9	533.3
20°	544.4	533.3	513.7	501.2	495.6
22.5°	509.5	491.4	470.4	462.1	455.1
25°	467.7	448.1	427.2	420.2	411.8
27.5°	428.6	404.8	383.9	378.3	371.3
30°	390.9	365.8	340.6	340.6	330.9
32.5°	350.4	326.7	300.1	298.7	293.2
35°	311.3	287.6	261.1	258.3	252.7
37.5°	275.0	251.3	226.2	217.8	210.8
40°	234.5	213.6	192.6	178.7	170.3
42.5°	202.4	178.7	157.7	141.0	129.8
45°	161.9	145.2	128.4	107.5	93.5
47.5°	125.6	114.5	100.5	76.8	69.8
50°	92.1	86.6	75.4	57.2	55.8
52.5°	58.6	61.4	54.4	44.7	48.9
55°	27.9	39.1	36.3	37.7	40.5
57.5°	18.1	19.5	26.5	30.7	33.5
60°	14.0	14.0	19.5	25.1	27.9
62.5°	11.2	11.2	15.4	20.9	22.3
65°	8.4	9.8	11.2	15.4	18.1
67.5°	7.0	7.0	8.4	12.6	14.0
70°	5.6	5.6	7.0	9.8	11.2
72.5°	4.2	4.2	5.6	8.4	8.4
75°	2.8	4.2	4.2	5.6	7.0
77.5°	2.8	2.8	2.8	4.2	5.6
80°	1.4	1.4	2.8	2.8	4.2
82.5°	1.4	1.4	1.4	1.4	2.8
85°	0.0	0.0	0.0	1.4	1.4
87.5°	0.0	0.0	0.0	0.0	0.0
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	4.76	5.92	5.12	6.23	6.55	8.16	9.33	8.53	9.64	9.95
	3H	5.28	6.30	5.66	6.64	7.00	8.90	9.92	9.28	10.25	10.62
	4H	5.42	6.37	5.82	6.72	7.10	9.12	10.06	9.52	10.42	10.80
	6H	5.49	6.36	5.91	6.73	7.13	9.27	10.13	9.68	10.51	10.90
	8H	5.50	6.32	5.93	6.71	7.12	9.30	10.12	9.73	10.51	10.92
	12H	5.46	6.24	5.90	6.63	7.06	9.30	10.08	9.73	10.46	10.89
4H	2H	5.07	6.02	5.47	6.37	6.76	8.13	9.08	8.54	9.43	9.82
	3H	5.74	6.50	6.15	6.91	7.31	9.01	9.78	9.43	10.19	10.59
	4H	5.98	6.66	6.41	7.08	7.53	9.30	9.98	9.73	10.40	10.85
	6H	6.10	6.68	6.57	7.13	7.60	9.52	10.11	9.99	10.56	11.03
	8H	6.11	6.66	6.59	7.11	7.58	9.57	10.11	10.04	10.56	11.04
	12H	6.08	6.56	6.57	7.04	7.52	9.59	10.06	10.08	10.55	11.03
8H	4H	6.09	6.63	6.56	7.08	7.55	9.23	9.77	9.70	10.22	10.69
	6H	6.25	6.70	6.76	7.20	7.68	9.49	9.93	9.99	10.43	10.91
	8H	6.30	6.70	6.83	7.21	7.71	9.55	9.94	10.08	10.46	10.96
	12H	6.28	6.62	6.80	7.12	7.70	9.61	9.96	10.13	10.45	11.03
12H	4H	6.07	6.55	6.56	7.04	7.51	9.18	9.66	9.67	10.14	10.62
	6H	6.25	6.65	6.78	7.17	7.66	9.44	9.83	9.97	10.35	10.85
	8H	6.33	6.67	6.84	7.17	7.75	9.52	9.87	10.04	10.37	10.94