

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: P1058188

Luminaire Tested: S122RDRP-S865D950-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058188  
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-S865D950-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, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

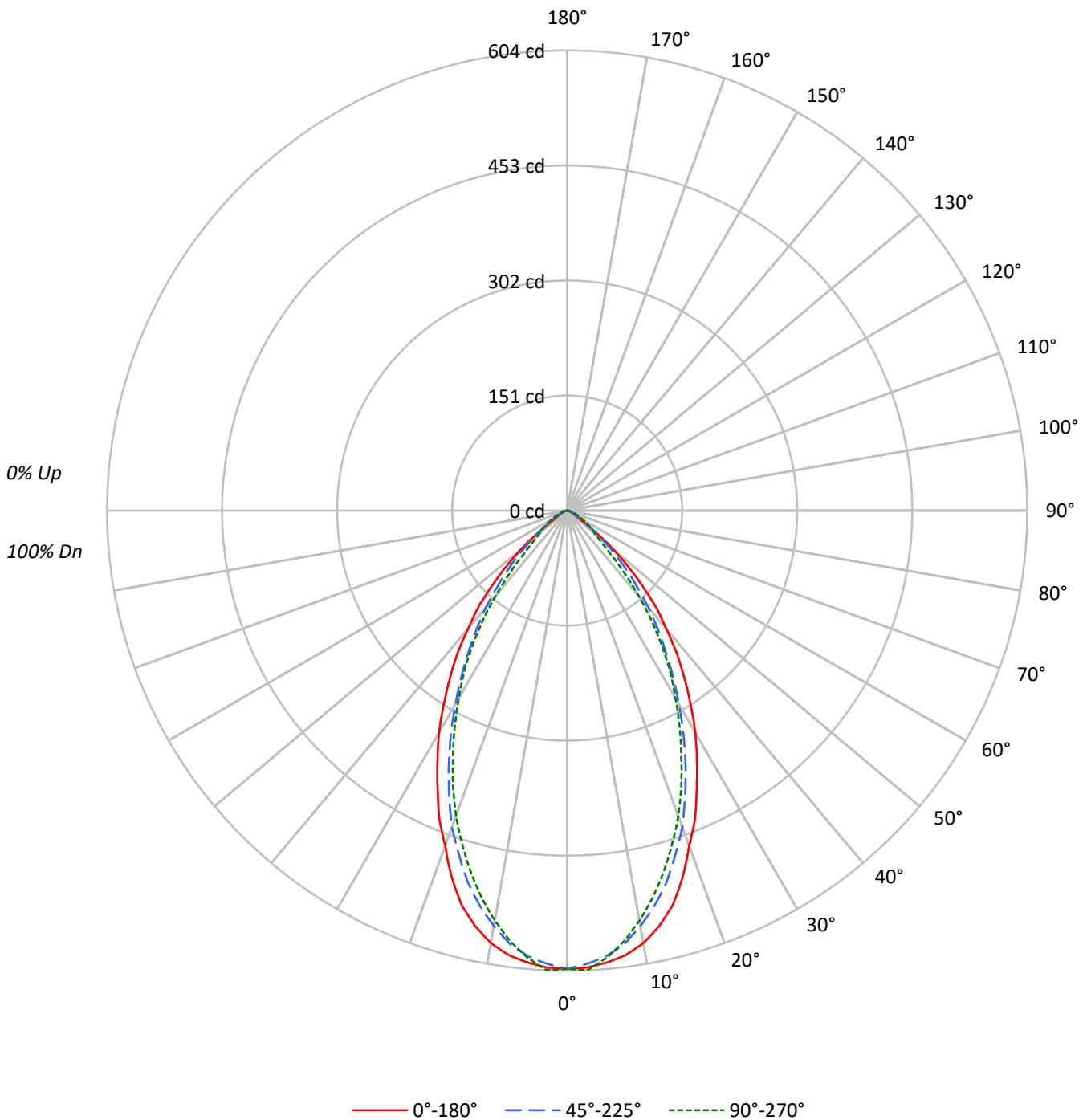
Lumens per Lamp: N/A  
Luminaire Lumens: 647.0 lumens  
Efficiency: N/A  
Efficacy: 18.5 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (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	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°	11101	11101	11101
5°	11032	10877	10921
10°	10800	10373	10238
15°	10232	9636	9361
20°	9196	8677	8371
25°	8191	7482	7214
30°	7163	6243	6064
35°	6033	5059	4897
40°	4859	3991	3529
45°	3635	2884	2101
50°	2276	1860	1378
55°	772	1004	1120
60°	443	620	886
65°	314	419	681
70°	259	324	518
75°	171	257	428
80°	128	255	383
85°	0	0	254

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3635 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.4	8.6
10°-20°	142.0	21.9
20°-30°	170.9	26.4
30°-40°	146.0	22.6
40°-50°	85.6	13.2
50°-60°	31.0	4.8
60°-70°	11.0	1.7
70°-80°	4.4	0.7
80°-90°	0.8	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°	368.3	56.9
0°-40°	514.4	79.5
0°-60°	630.9	97.5
0°-90°	647.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	647.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	602	602	602	602	602	
5°	596	597	587	590	590	56
15°	536	527	504	495	490	149
25°	402	386	368	362	354	185
35°	268	247	225	222	217	167
45°	139	125	110	92	80	107
55°	24	34	31	32	35	30
65°	7	8	10	13	16	8
75°	2	4	4	5	6	3
85°	0	0	0	1	1	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	601.6	601.6	601.6	601.6	601.6
2.5°	600.4	601.6	595.6	601.6	604.0
5°	595.6	596.8	587.2	589.6	589.6
7.5°	588.4	587.2	574.0	571.6	570.4
10°	576.4	572.8	553.6	550.0	546.4
12.5°	558.4	551.2	530.8	524.8	520.0
15°	535.6	527.2	504.4	494.8	490.0
17.5°	504.4	494.8	473.1	463.5	458.7
20°	468.3	458.7	441.9	431.1	426.3
22.5°	438.3	422.7	404.7	397.5	391.5
25°	402.3	385.5	367.5	361.5	354.3
27.5°	368.7	348.3	330.2	325.4	319.4
30°	336.2	314.6	293.0	293.0	284.6
32.5°	301.4	281.0	258.2	257.0	252.2
35°	267.8	247.4	224.6	222.2	217.4
37.5°	236.6	216.2	194.5	187.3	181.3
40°	201.7	183.7	165.7	153.7	146.5
42.5°	174.1	153.7	135.7	121.3	111.7
45°	139.3	124.9	110.5	92.5	80.5
47.5°	108.1	98.5	86.5	66.0	60.0
50°	79.3	74.5	64.8	49.2	48.0
52.5°	50.4	52.8	46.8	38.4	42.0
55°	24.0	33.6	31.2	32.4	34.8
57.5°	15.6	16.8	22.8	26.4	28.8
60°	12.0	12.0	16.8	21.6	24.0
62.5°	9.6	9.6	13.2	18.0	19.2
65°	7.2	8.4	9.6	13.2	15.6
67.5°	6.0	6.0	7.2	10.8	12.0
70°	4.8	4.8	6.0	8.4	9.6
72.5°	3.6	3.6	4.8	7.2	7.2
75°	2.4	3.6	3.6	4.8	6.0
77.5°	2.4	2.4	2.4	3.6	4.8
80°	1.2	1.2	2.4	2.4	3.6
82.5°	1.2	1.2	1.2	1.2	2.4
85°	0.0	0.0	0.0	1.2	1.2
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	4.24	5.40	4.61	5.72	6.03	7.64	8.80	8.00	9.11	9.43
	3H	4.76	5.78	5.14	6.12	6.48	8.37	9.39	8.75	9.72	10.09
	4H	4.90	5.84	5.30	6.20	6.58	8.58	9.53	8.99	9.88	10.27
	6H	4.97	5.84	5.39	6.21	6.61	8.73	9.60	9.15	9.97	10.37
	8H	4.98	5.79	5.41	6.18	6.59	8.77	9.58	9.20	9.97	10.38
	12H	4.94	5.72	5.37	6.10	6.53	8.77	9.55	9.20	9.93	10.36
4H	2H	4.55	5.50	4.96	5.85	6.24	7.61	8.55	8.01	8.90	9.29
	3H	5.21	5.98	5.62	6.38	6.79	8.48	9.25	8.90	9.66	10.06
	4H	5.45	6.13	5.89	6.56	7.00	8.76	9.44	9.20	9.87	10.31
	6H	5.57	6.16	6.04	6.60	7.08	8.99	9.57	9.45	10.02	10.49
	8H	5.58	6.13	6.06	6.58	7.05	9.03	9.58	9.50	10.03	10.50
	12H	5.55	6.03	6.04	6.51	6.99	9.05	9.53	9.54	10.02	10.49
8H	4H	5.56	6.10	6.03	6.55	7.03	8.69	9.24	9.16	9.69	10.16
	6H	5.72	6.17	6.23	6.67	7.15	8.95	9.39	9.46	9.89	10.38
	8H	5.77	6.16	6.30	6.68	7.18	9.01	9.41	9.54	9.93	10.42
	12H	5.75	6.09	6.26	6.59	7.17	9.07	9.42	9.59	9.92	10.49
12H	4H	5.54	6.02	6.03	6.51	6.98	8.64	9.12	9.13	9.61	10.08
	6H	5.72	6.12	6.25	6.64	7.13	8.90	9.30	9.43	9.82	10.31
	8H	5.79	6.14	6.31	6.64	7.22	8.99	9.34	9.51	9.83	10.41