

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: P1059158

Luminaire Tested: S123RDRP-S1165D950-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059158  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S1165D950-X4F0-XX-UDD-BVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

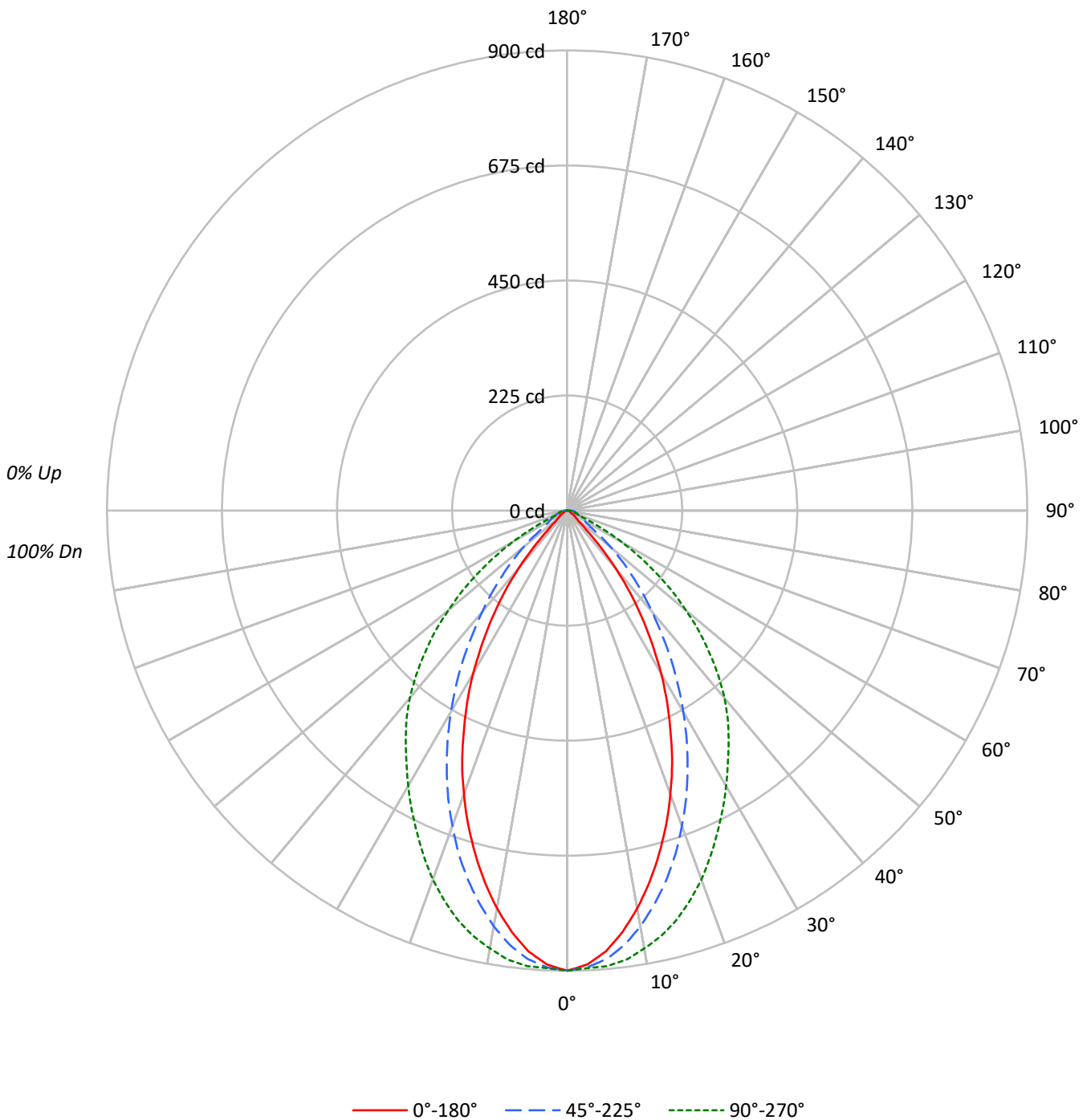
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1080.9 lumens  
Efficiency: N/A  
Efficacy: 25.9 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.8  
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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81					81			
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73					73			
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66					66			
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60					60			
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55					55			
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50					50			
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46					46			
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43					43			
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40					40			

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

	0°	45°	90°
0°	10566	10566	10566
5°	10201	10380	10541
10°	9417	9843	10369
15°	8446	9099	10069
20°	7376	8201	9593
25°	6203	7219	9002
30°	4982	6156	8432
35°	3648	5069	7890
40°	2256	3944	7339
45°	869	2971	6535
50°	427	2035	5530
55°	338	1126	4338
60°	225	937	2907
65°	192	842	1300
70°	189	755	755
75°	250	812	749
80°	372	1021	839
85°	552	1671	1118

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6535 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.5	7.6
10°-20°	211.2	19.5
20°-30°	262.1	24.3
30°-40°	234.9	21.7
40°-50°	154.4	14.3
50°-60°	77.4	7.2
60°-70°	30.5	2.8
70°-80°	17.1	1.6
80°-90°	10.8	1.0
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°	555.9	51.4
0°-40°	790.7	73.2
0°-60°	1022.5	94.6
0°-90°	1080.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1080.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	900	900	900	900	900	
5°	865	879	881	886	894	80
15°	695	717	748	799	828	194
25°	479	509	557	636	695	219
35°	254	289	354	462	550	158
45°	52	87	179	301	394	50
55°	16	19	55	149	212	15
65°	7	19	30	38	47	7
75°	6	18	18	16	16	6
85°	4	12	12	12	8	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	899.8	899.8	899.8	899.8	899.8
2.5°	888.8	901.2	894.3	894.3	895.7
5°	865.4	879.2	880.6	886.1	894.3
7.5°	831.0	848.9	857.2	873.7	886.1
10°	789.8	809.0	825.5	854.4	869.6
12.5°	744.4	763.6	788.4	828.3	851.7
15°	694.8	716.8	748.5	799.4	828.3
17.5°	643.9	665.9	704.5	762.2	799.4
20°	590.3	615.0	656.3	722.3	767.7
22.5°	536.6	564.1	608.1	679.7	732.0
25°	478.8	509.1	557.2	635.7	694.8
27.5°	423.8	455.4	506.3	591.6	659.0
30°	367.4	399.0	454.0	546.2	621.9
32.5°	309.6	345.3	403.1	503.6	584.7
35°	254.5	288.9	353.6	462.3	550.4
37.5°	200.9	235.3	302.7	422.4	516.0
40°	147.2	183.0	257.3	383.9	478.8
42.5°	96.3	133.5	217.4	345.3	437.5
45°	52.3	86.7	178.9	301.3	393.5
47.5°	28.9	46.8	144.5	260.0	350.8
50°	23.4	26.1	111.4	221.5	302.7
52.5°	19.3	22.0	79.8	184.4	258.7
55°	16.5	19.3	55.0	148.6	211.9
57.5°	13.8	16.5	44.0	114.2	166.5
60°	9.6	16.5	39.9	83.9	123.8
62.5°	8.3	16.5	34.4	57.8	82.6
65°	6.9	19.3	30.3	38.5	46.8
67.5°	5.5	19.3	26.1	24.8	24.8
70°	5.5	19.3	22.0	20.6	22.0
72.5°	5.5	20.6	20.6	19.3	19.3
75°	5.5	17.9	17.9	16.5	16.5
77.5°	5.5	16.5	16.5	15.1	15.1
80°	5.5	15.1	15.1	13.8	12.4
82.5°	5.5	13.8	13.8	12.4	11.0
85°	4.1	12.4	12.4	12.4	8.3
87.5°	4.1	11.0	12.4	11.0	6.9
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	0.65	1.91	1.01	2.22	2.53	14.74	16.00	15.10	16.31	16.62
	3H	3.18	4.29	3.56	4.62	4.99	14.82	15.93	15.20	16.26	16.63
	4H	4.34	5.38	4.75	5.73	6.11	14.88	15.92	15.28	16.27	16.65
	6H	5.39	6.34	5.81	6.71	7.11	14.98	15.93	15.39	16.30	16.69
	8H	5.93	6.83	6.36	7.22	7.63	15.04	15.94	15.47	16.33	16.74
	12H	6.41	7.27	6.84	7.65	8.08	15.11	15.97	15.54	16.35	16.78
4H	2H	3.91	4.95	4.32	5.30	5.69	14.60	15.63	15.00	15.98	16.37
	3H	6.38	7.22	6.79	7.63	8.03	14.77	15.62	15.19	16.02	16.43
	4H	7.72	8.48	8.16	8.90	9.34	14.90	15.66	15.34	16.08	16.52
	6H	8.85	9.50	9.31	9.95	10.42	15.12	15.77	15.58	16.22	16.68
	8H	9.36	9.97	9.83	10.42	10.89	15.24	15.85	15.71	16.30	16.77
	12H	9.82	10.35	10.30	10.84	11.31	15.40	15.94	15.89	16.42	16.90
8H	4H	8.64	9.25	9.11	9.69	10.17	14.90	15.51	15.37	15.96	16.43
	6H	10.23	10.73	10.74	11.23	11.71	15.23	15.73	15.74	16.23	16.71
	8H	11.06	11.51	11.58	12.03	12.52	15.46	15.91	15.99	16.43	16.92
	12H	11.84	12.24	12.36	12.74	13.31	15.79	16.19	16.30	16.68	17.26
12H	4H	8.80	9.34	9.29	9.83	10.30	14.89	15.43	15.38	15.92	16.39
	6H	10.55	11.00	11.07	11.52	12.01	15.26	15.71	15.79	16.23	16.72
	8H	11.56	11.96	12.08	12.46	13.03	15.57	15.97	16.09	16.47	17.04