

Scaled data based on original data using  
LM-79-2019 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: S123RDR-S1165D950-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
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: S123RDR-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: -

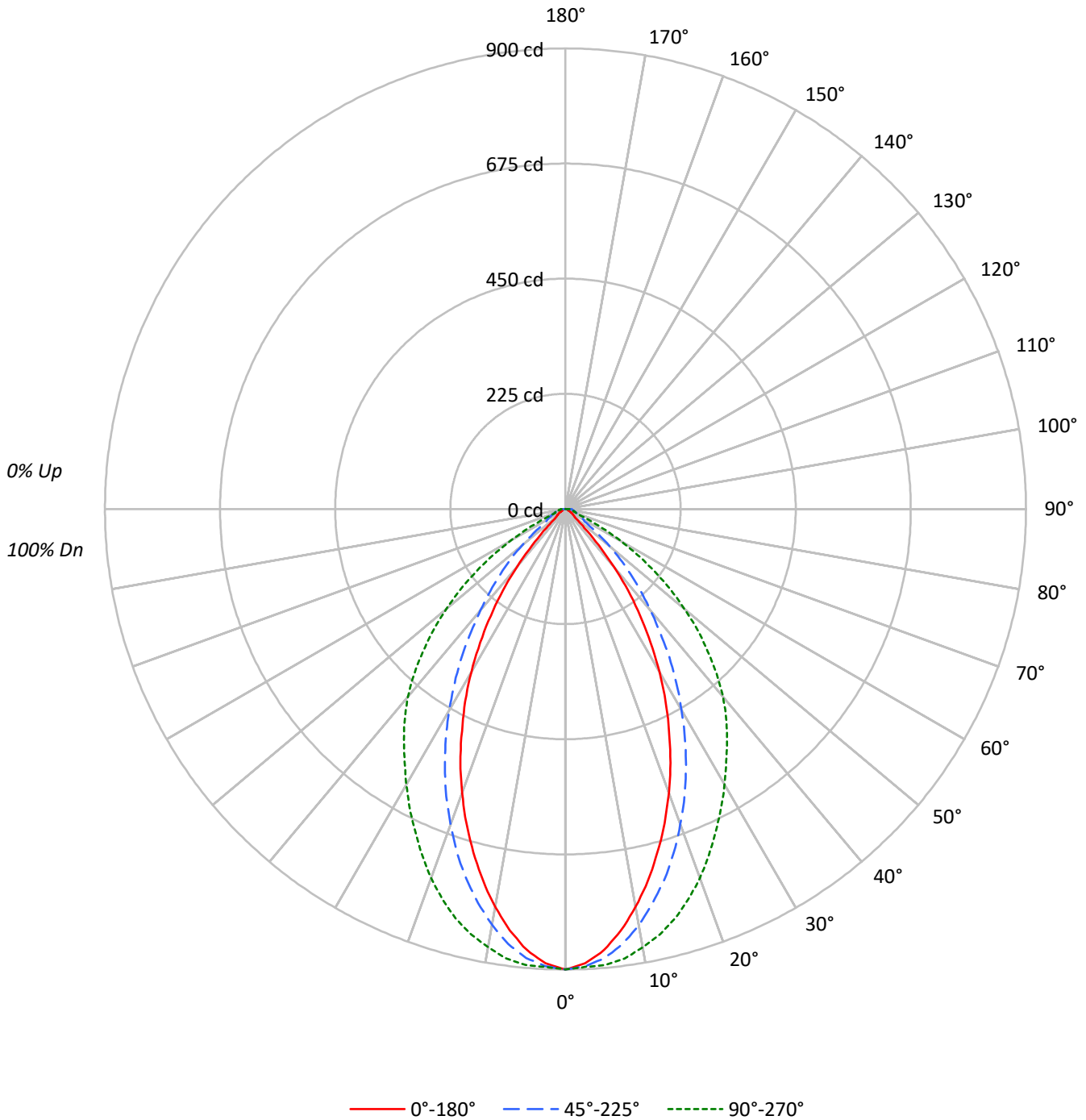
**Summary**

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 (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	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	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	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

(END OF REPORT)