

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: P1059320

Luminaire Tested: S123RDR-S560D950-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059320  
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-S560D950-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: -

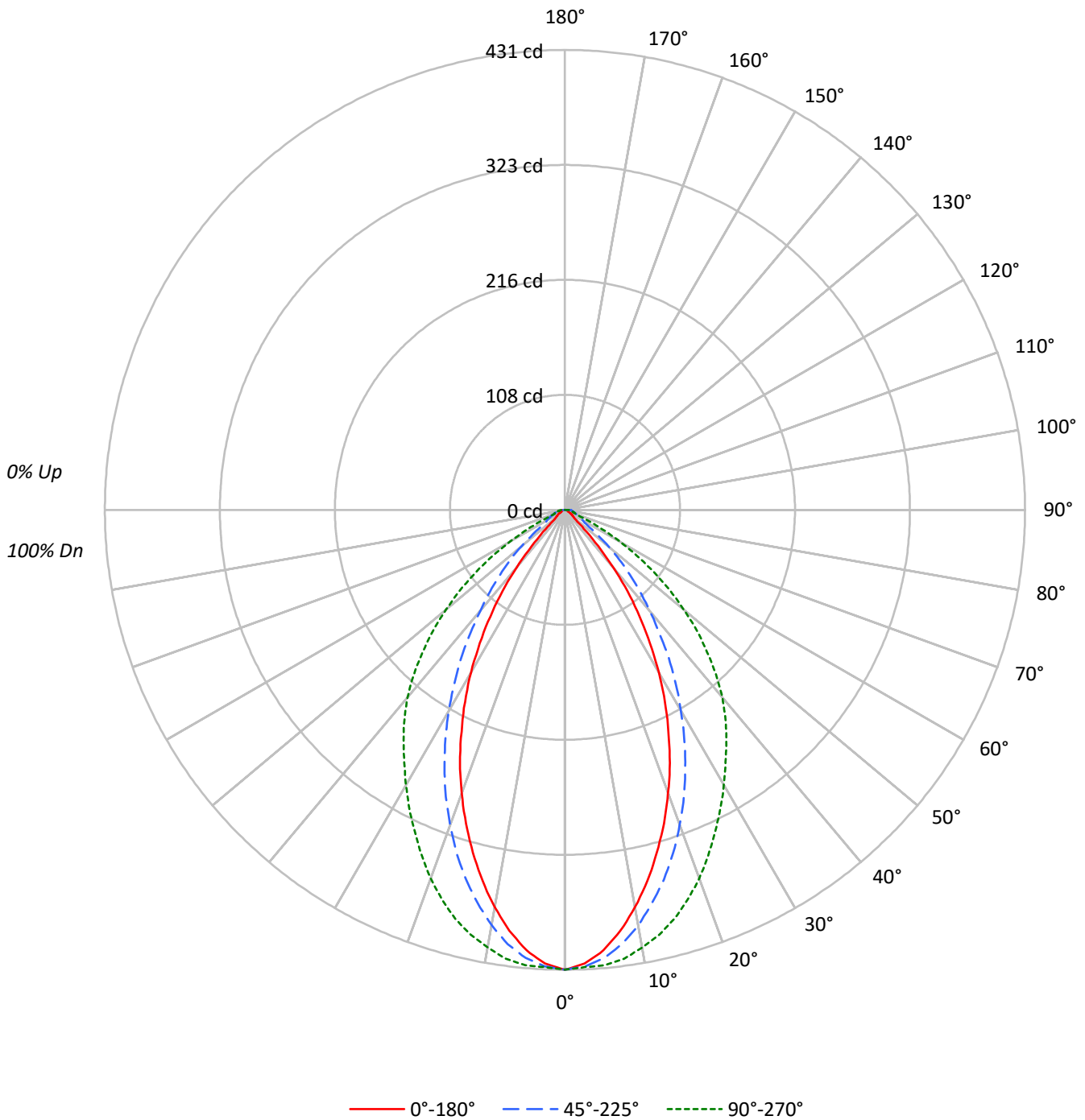
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 517.5 lumens  
Efficiency: N/A  
Efficacy: 26.4 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): 19.6  
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	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°	5060	5060	5060
5°	4885	4970	5047
10°	4509	4713	4965
15°	4045	4357	4821
20°	3531	3928	4594
25°	2971	3457	4311
30°	2385	2948	4038
35°	1747	2427	3777
40°	1081	1888	3515
45°	415	1422	3129
50°	205	976	2647
55°	162	540	2078
60°	108	449	1393
65°	92	403	622
70°	89	360	360
75°	118	390	358
80°	176	487	399
85°	269	795	539

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3129 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.5	7.6
10°-20°	101.1	19.5
20°-30°	125.5	24.3
30°-40°	112.5	21.7
40°-50°	73.9	14.3
50°-60°	37.0	7.2
60°-70°	14.6	2.8
70°-80°	8.2	1.6
80°-90°	5.1	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°	266.2	51.4
0°-40°	378.6	73.2
0°-60°	489.6	94.6
0°-90°	517.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	517.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	431	431	431	431	431	
5°	414	421	422	424	428	38
15°	333	343	358	383	397	93
25°	229	244	267	304	333	105
35°	122	138	169	221	264	76
45°	25	42	86	144	188	24
55°	8	9	26	71	102	7
65°	3	9	14	18	22	3
75°	3	9	9	8	8	3
85°	2	6	6	6	4	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	430.9	430.9	430.9	430.9	430.9
2.5°	425.6	431.5	428.2	428.2	428.9
5°	414.4	421.0	421.6	424.3	428.2
7.5°	397.9	406.5	410.4	418.3	424.3
10°	378.2	387.4	395.3	409.1	416.4
12.5°	356.4	365.6	377.5	396.6	407.8
15°	332.7	343.2	358.4	382.8	396.6
17.5°	308.3	318.9	337.3	365.0	382.8
20°	282.6	294.5	314.3	345.9	367.6
22.5°	256.9	270.1	291.2	325.5	350.5
25°	229.3	243.8	266.8	304.4	332.7
27.5°	202.9	218.1	242.4	283.3	315.6
30°	175.9	191.1	217.4	261.5	297.8
32.5°	148.2	165.4	193.0	241.1	280.0
35°	121.9	138.3	169.3	221.4	263.5
37.5°	96.2	112.7	144.9	202.3	247.1
40°	70.5	87.6	123.2	183.8	229.3
42.5°	46.1	63.9	104.1	165.4	209.5
45°	25.0	41.5	85.6	144.3	188.4
47.5°	13.8	22.4	69.2	124.5	168.0
50°	11.2	12.5	53.4	106.1	144.9
52.5°	9.2	10.5	38.2	88.3	123.9
55°	7.9	9.2	26.4	71.2	101.5
57.5°	6.6	7.9	21.1	54.7	79.7
60°	4.6	7.9	19.1	40.2	59.3
62.5°	4.0	7.9	16.5	27.7	39.5
65°	3.3	9.2	14.5	18.4	22.4
67.5°	2.6	9.2	12.5	11.9	11.9
70°	2.6	9.2	10.5	9.9	10.5
72.5°	2.6	9.9	9.9	9.2	9.2
75°	2.6	8.6	8.6	7.9	7.9
77.5°	2.6	7.9	7.9	7.2	7.2
80°	2.6	7.2	7.2	6.6	5.9
82.5°	2.6	6.6	6.6	5.9	5.3
85°	2.0	5.9	5.9	5.9	4.0
87.5°	2.0	5.3	5.9	5.3	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)