

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: P1059321

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059321  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)  
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-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

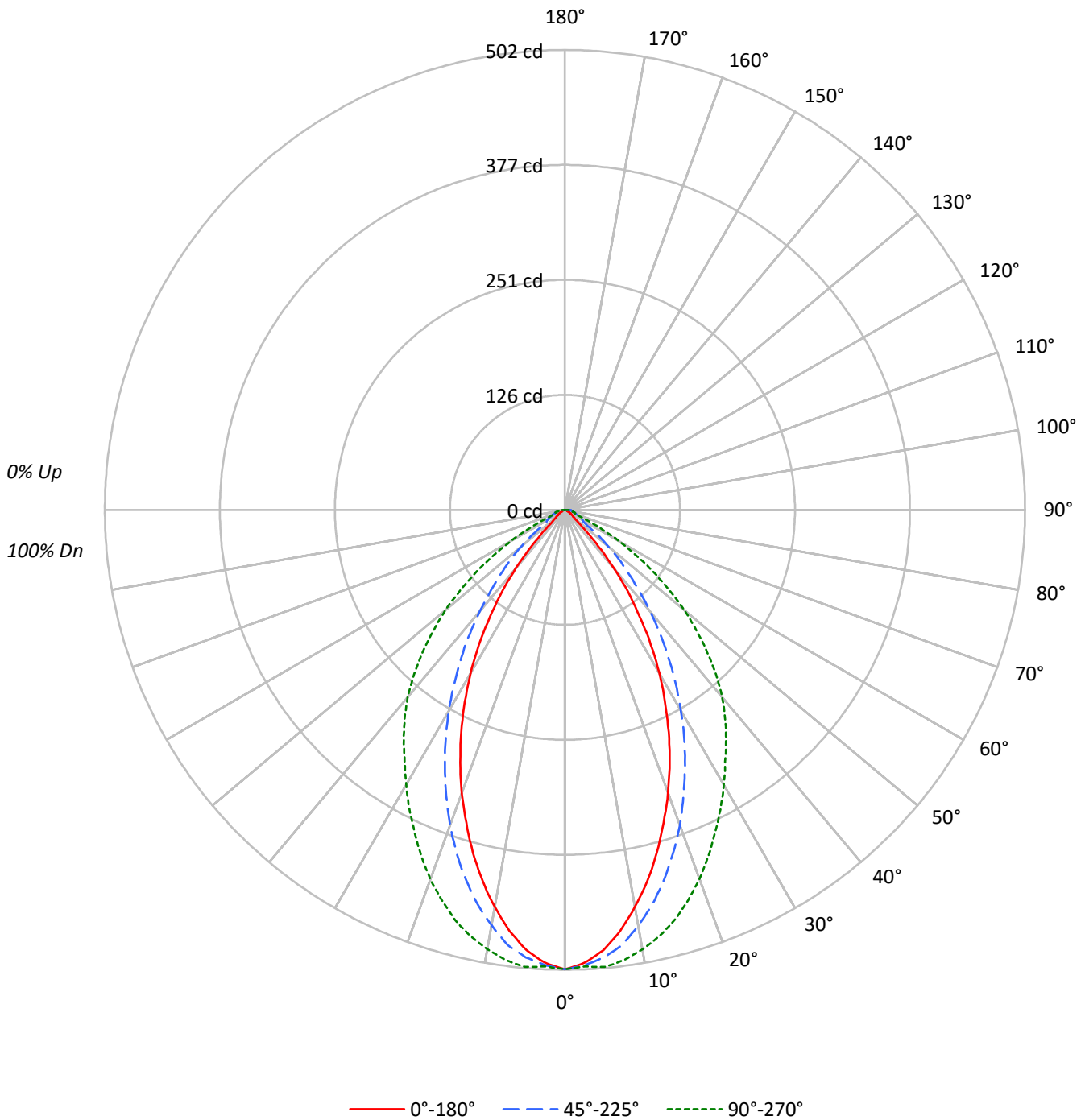
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 602.0 lumens  
Efficiency: N/A  
Efficacy: 30.7 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	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81				
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73				
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66				
5	86	76	69	64	84	75	69	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	65	58	53	63	57	53	62	56	52	61	56	52	50				
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47				
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	42	40				

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

	0°	45°	90°
0°	5889	5889	5889
5°	5686	5779	5903
10°	5249	5492	5807
15°	4711	5079	5632
20°	4109	4579	5361
25°	3467	4013	5028
30°	2788	3432	4700
35°	2040	2824	4392
40°	1272	2203	4091
45°	482	1641	3643
50°	228	1131	3106
55°	176	620	2401
60°	124	526	1578
65°	92	458	659
70°	89	429	429
75°	118	449	449
80°	176	534	487
85°	350	889	714

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3643 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.0	7.6
10°-20°	118.0	19.6
20°-30°	146.1	24.3
30°-40°	131.0	21.8
40°-50°	85.9	14.3
50°-60°	43.0	7.1
60°-70°	16.8	2.8
70°-80°	9.4	1.6
80°-90°	5.8	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°	310.2	51.5
0°-40°	441.2	73.3
0°-60°	570.1	94.7
0°-90°	602.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	602.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	502	502	502	502	502	
5°	482	490	490	496	501	45
15°	388	403	418	446	463	108
25°	268	284	310	354	388	122
35°	142	162	197	256	306	89
45°	29	47	99	169	219	28
55°	9	10	30	83	117	8
65°	3	10	16	22	24	3
75°	3	10	10	10	10	3
85°	3	7	7	7	5	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	501.5	501.5	501.5	501.5	501.5
2.5°	494.9	502.2	497.5	498.2	498.9
5°	482.4	490.3	490.3	495.6	500.8
7.5°	463.3	472.5	479.1	488.3	495.6
10°	440.2	451.4	460.6	477.1	487.0
12.5°	415.2	429.0	440.9	462.6	476.5
15°	387.5	403.3	417.8	445.5	463.3
17.5°	357.8	373.6	392.8	425.0	446.8
20°	328.8	344.7	366.4	402.6	429.0
22.5°	298.5	315.0	338.1	378.3	409.2
25°	267.6	284.0	309.7	353.9	388.1
27.5°	236.6	253.1	282.0	330.2	367.7
30°	205.6	222.1	253.1	304.5	346.6
32.5°	174.6	192.4	224.7	280.7	325.5
35°	142.3	161.5	197.0	256.3	306.4
37.5°	112.7	130.5	170.7	235.3	287.3
40°	83.0	102.1	143.7	214.8	266.9
42.5°	54.0	74.5	119.3	192.4	243.8
45°	29.0	46.8	98.8	169.4	219.4
47.5°	15.8	25.7	79.7	145.0	194.4
50°	12.5	14.5	61.9	123.9	170.0
52.5°	10.5	11.9	44.2	104.1	143.0
55°	8.6	10.5	30.3	83.0	117.3
57.5°	7.2	9.2	23.7	64.6	91.6
60°	5.3	7.9	22.4	47.4	67.2
62.5°	4.0	8.6	19.8	32.9	44.2
65°	3.3	9.9	16.5	21.7	23.7
67.5°	2.6	10.5	14.5	13.8	13.8
70°	2.6	9.9	12.5	11.9	12.5
72.5°	2.6	10.5	11.2	10.5	11.2
75°	2.6	9.9	9.9	9.9	9.9
77.5°	2.6	9.2	9.2	8.6	8.6
80°	2.6	7.9	7.9	7.9	7.2
82.5°	2.6	7.2	7.2	7.2	5.9
85°	2.6	6.6	6.6	6.6	5.3
87.5°	2.0	5.9	6.6	5.9	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)