

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: P1059274

Luminaire Tested: S123RDR-S560D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059274  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S560D850-X4F0-XX-UDD-BVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

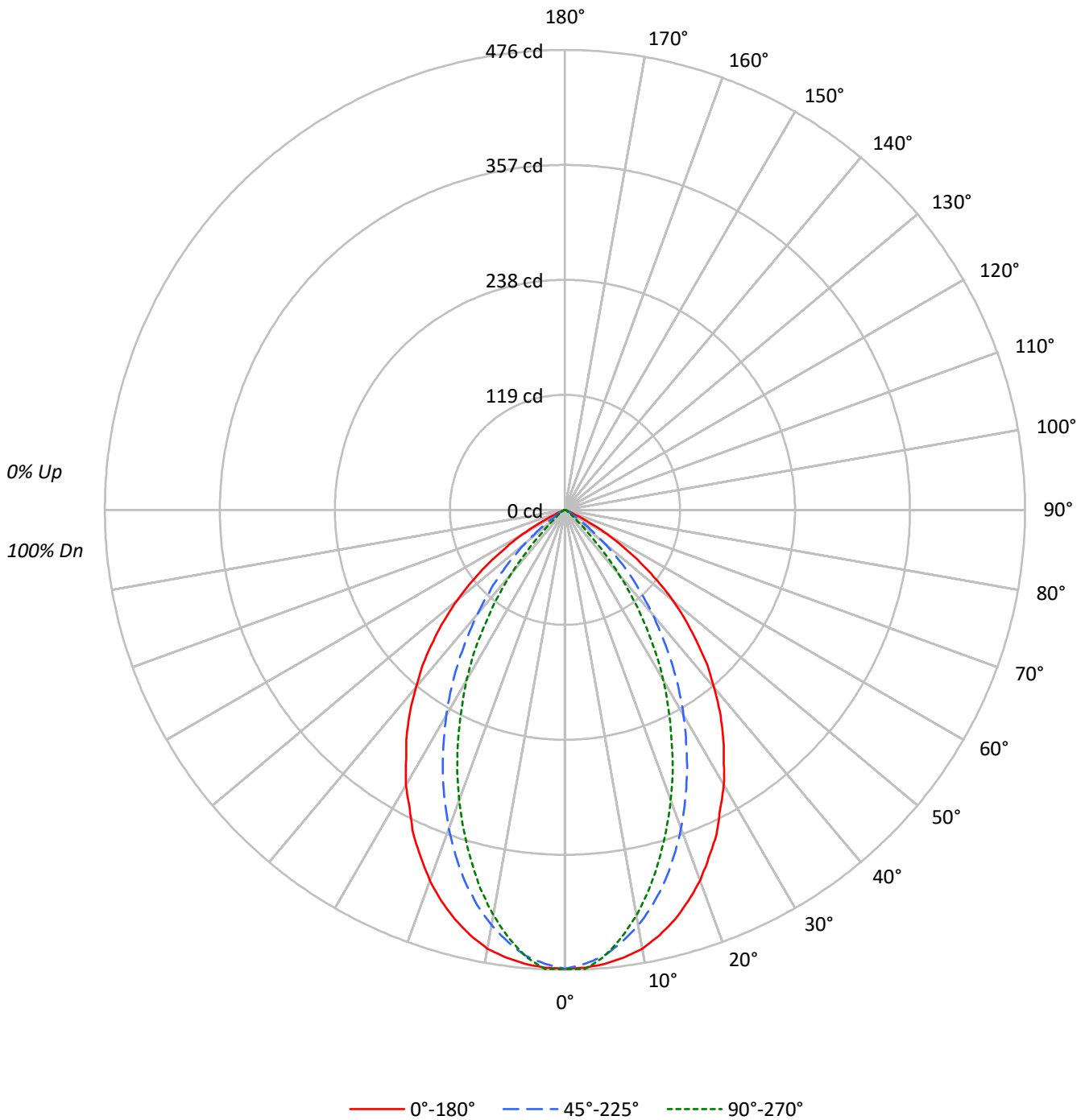
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 542.0 lumens  
Efficiency: N/A  
Efficacy: 27.7 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 0.81 / 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

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

	0°	45°	90°
0°	5578	5578	5578
5°	5562	5463	5472
10°	5499	5207	5079
15°	5337	4844	4565
20°	5103	4387	3995
25°	4806	3874	3379
30°	4460	3329	2758
35°	4090	2752	2050
40°	3670	2157	1314
45°	3200	1574	546
50°	2654	935	210
55°	1957	391	156
60°	1186	143	89
65°	320	86	42
70°	0	27	27
75°	0	0	36
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3200 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.7	8.1
10°-20°	112.8	20.8
20°-30°	140.6	25.9
30°-40°	125.8	23.2
40°-50°	79.4	14.6
50°-60°	33.2	6.1
60°-70°	6.3	1.2
70°-80°	0.2	0.0
80°-90°	0.0	0.0
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°	297.2	54.8
0°-40°	422.9	78.0
0°-60°	535.5	98.8
0°-90°	542.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	542.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	475	475	475	475	475	
5°	472	471	464	465	464	45
15°	439	428	398	382	376	123
25°	371	341	299	273	261	170
35°	285	244	192	158	143	178
45°	193	150	95	50	33	149
55°	96	66	19	8	8	86
65°	12	8	3	2	2	16
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	475.0	475.0	475.0	475.0	475.0
2.5°	474.2	475.0	470.4	475.0	475.7
5°	471.9	471.1	463.5	465.0	464.2
7.5°	467.3	465.0	451.2	448.2	446.7
10°	461.2	455.1	436.7	429.1	426.0
12.5°	451.2	442.8	419.1	406.9	402.3
15°	439.0	428.3	398.5	381.6	375.5
17.5°	424.5	409.2	375.5	357.2	348.0
20°	408.4	387.0	351.1	328.9	319.7
22.5°	389.3	365.6	325.0	301.3	291.4
25°	370.9	341.1	299.0	273.0	260.8
27.5°	348.0	316.6	271.5	244.7	231.7
30°	328.9	292.9	245.5	215.7	203.4
32.5°	305.9	268.5	218.7	185.9	174.4
35°	285.3	244.0	192.0	157.6	143.0
37.5°	263.1	220.3	165.2	129.3	115.5
40°	239.4	196.6	140.7	101.0	85.7
42.5°	218.0	172.8	116.3	75.0	59.7
45°	192.7	149.9	94.8	50.5	32.9
47.5°	169.8	128.5	71.9	28.3	17.6
50°	145.3	106.3	51.2	14.5	11.5
52.5°	120.1	84.9	33.7	9.9	9.2
55°	95.6	65.8	19.1	7.6	7.6
57.5°	71.9	47.4	9.9	6.1	5.4
60°	50.5	31.4	6.1	4.6	3.8
62.5°	29.1	18.4	4.6	3.1	3.1
65°	11.5	8.4	3.1	1.5	1.5
67.5°	0.8	2.3	1.5	0.8	0.8
70°	0.0	0.0	0.8	0.8	0.8
72.5°	0.0	0.0	0.8	0.8	0.8
75°	0.0	0.0	0.0	0.0	0.8
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)