

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: P1059262

Luminaire Tested: S123RDR-S560D835-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059262  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S560D835-X4F0-XX-UDD-WVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

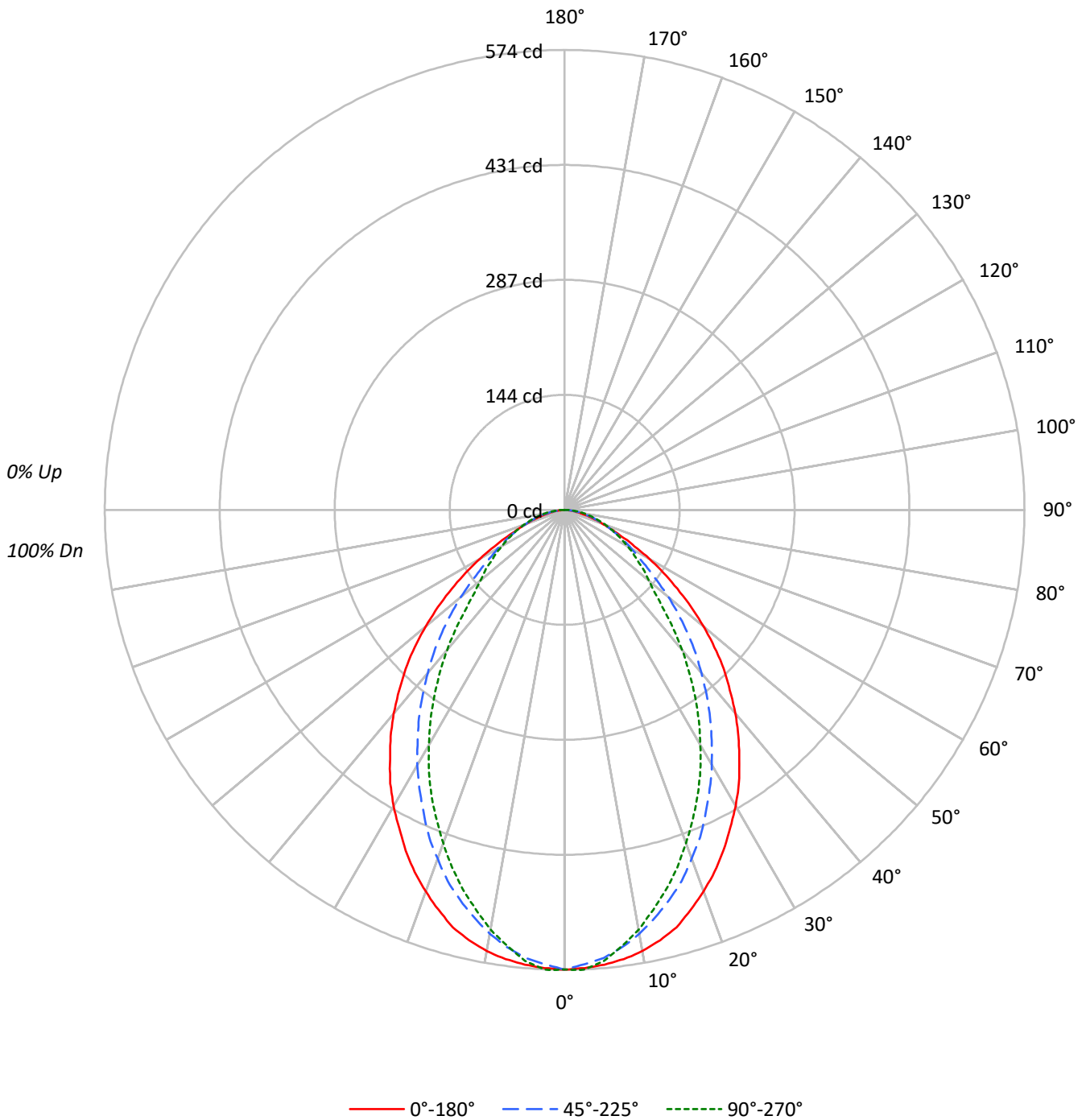
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1003.6 lumens  
Efficiency: N/A  
Efficacy: 51.2 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09  
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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52				
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35				
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				

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

	0°	45°	90°
0°	6738	6738	6738
5°	6715	6617	6659
10°	6669	6407	6341
15°	6556	6129	5962
20°	6334	5792	5533
25°	6077	5398	5093
30°	5788	4984	4591
35°	5447	4538	4064
40°	5085	4070	3500
45°	4661	3597	2875
50°	4132	3087	2495
55°	3515	2584	2287
60°	2868	2252	2121
65°	2184	1992	1973
70°	1706	1775	1847
75°	1375	1597	1719
80°	1028	1305	1582
85°	552	835	1388

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4661 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.3	5.3
10°-20°	143.3	14.3
20°-30°	194.8	19.4
30°-40°	202.0	20.1
40°-50°	170.3	17.0
50°-60°	120.9	12.0
60°-70°	73.9	7.4
70°-80°	36.8	3.7
80°-90°	8.3	0.8
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°	391.4	39.0
0°-40°	593.4	59.1
0°-60°	884.6	88.1
0°-90°	1003.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1003.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	574	574	574	574	574	
5°	570	570	561	565	565	54
15°	539	529	504	495	490	151
25°	469	448	417	401	393	216
35°	380	351	317	294	284	238
45°	281	251	217	187	173	216
55°	172	154	126	115	112	154
65°	79	76	72	72	71	80
75°	30	32	35	37	38	33
85°	4	5	6	9	10	6
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	573.8	573.8	573.8	573.8	573.8
2.5°	572.4	573.1	567.6	573.8	574.5
5°	569.7	569.7	561.4	564.9	564.9
7.5°	565.5	564.2	550.4	550.4	549.0
10°	559.3	555.2	537.3	533.8	531.8
12.5°	550.4	543.5	521.4	515.2	511.1
15°	539.3	529.0	504.2	495.2	490.4
17.5°	523.5	513.1	485.5	473.1	467.6
20°	506.9	491.7	463.5	451.1	442.8
22.5°	489.0	469.7	442.1	426.9	418.0
25°	469.0	448.3	416.6	401.4	393.1
27.5°	447.6	424.8	392.4	375.2	366.9
30°	426.9	400.7	367.6	348.3	338.6
32.5°	404.8	375.2	341.4	321.4	311.7
35°	380.0	351.1	316.6	294.5	283.5
37.5°	356.6	326.9	291.0	267.6	255.2
40°	331.7	302.1	265.5	241.4	228.3
42.5°	305.5	277.3	241.4	213.1	200.7
45°	280.7	251.0	216.6	186.9	173.1
47.5°	253.8	226.2	192.4	162.1	152.4
50°	226.2	200.7	169.0	141.4	136.6
52.5°	199.3	177.9	145.5	127.6	125.5
55°	171.7	153.8	126.2	115.2	111.7
57.5°	146.2	133.1	108.3	102.8	101.4
60°	122.1	111.0	95.9	92.4	90.3
62.5°	98.6	92.4	83.5	82.1	80.7
65°	78.6	75.9	71.7	71.7	71.0
67.5°	62.1	62.1	61.4	62.8	62.1
70°	49.7	50.3	51.7	53.1	53.8
72.5°	39.3	41.4	42.8	44.8	45.5
75°	30.3	32.4	35.2	36.6	37.9
77.5°	22.1	24.1	26.9	29.0	30.3
80°	15.2	16.6	19.3	22.1	23.4
82.5°	9.7	10.3	12.4	15.2	16.6
85°	4.1	4.8	6.2	9.0	10.3
87.5°	0.0	0.0	0.7	2.8	4.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)