

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: P1059256

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059256  
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-S560D835-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: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

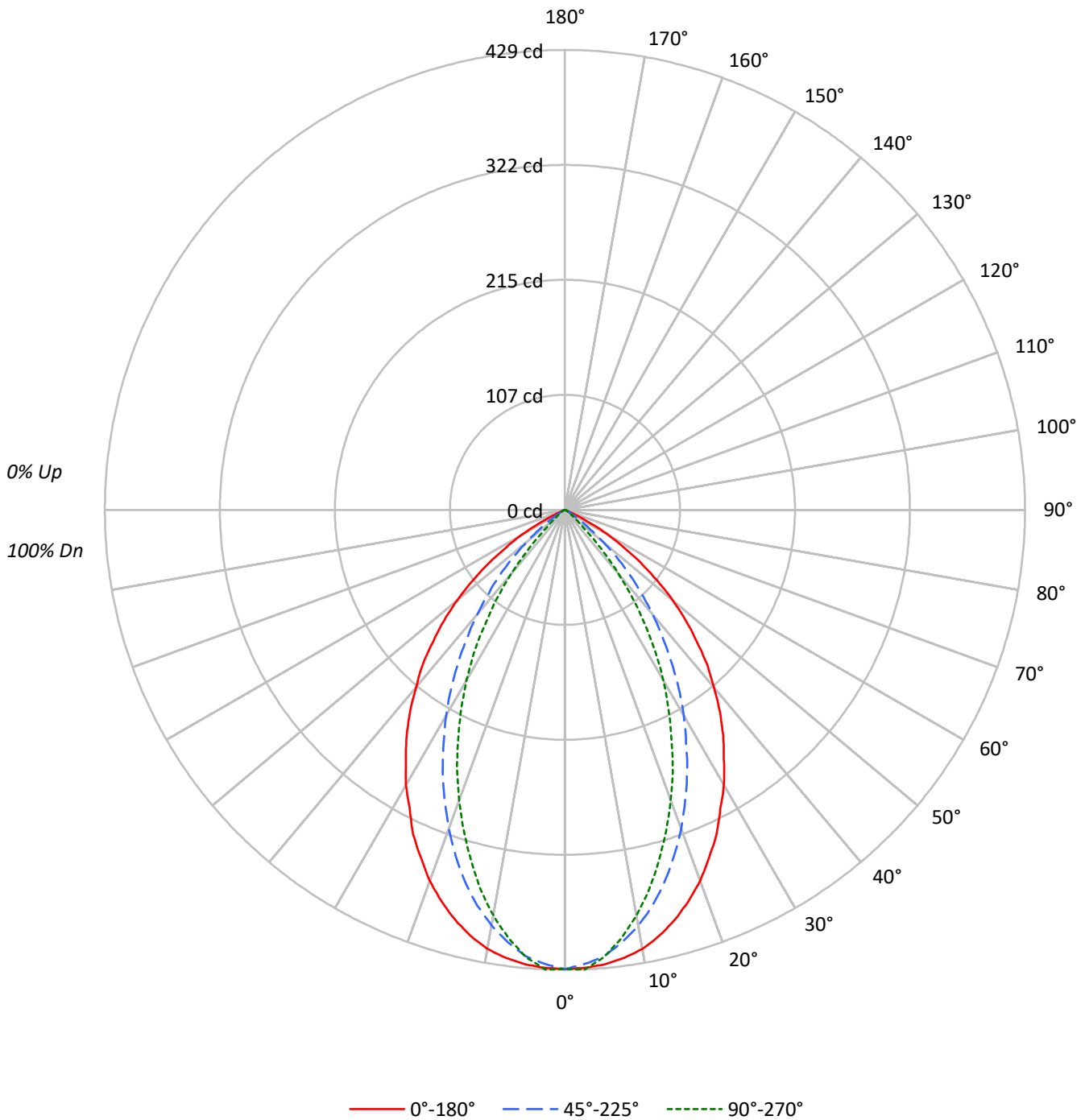
Lumens per Lamp: N/A  
Luminaire Lumens: 488.7 lumens  
Efficiency: N/A  
Efficacy: 24.9 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

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°	5029	5029	5029
5°	5015	4926	4934
10°	4959	4696	4580
15°	4813	4368	4116
20°	4602	3955	3603
25°	4334	3494	3047
30°	4020	3002	2487
35°	3687	2481	1849
40°	3309	1945	1183
45°	2886	1420	493
50°	2393	844	188
55°	1765	352	141
60°	1069	129	80
65°	286	78	39
70°	0	24	24
75°	0	0	32
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2886 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.4	8.1
10°-20°	101.7	20.8
20°-30°	126.8	25.9
30°-40°	113.4	23.2
40°-50°	71.6	14.6
50°-60°	29.9	6.1
60°-70°	5.6	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°	268.0	54.8
0°-40°	381.4	78.0
0°-60°	482.9	98.8
0°-90°	488.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	488.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	428	428	428	428	428	
5°	426	425	418	419	419	40
15°	396	386	359	344	339	111
25°	334	308	270	246	235	153
35°	257	220	173	142	129	160
45°	174	135	86	46	30	134
55°	86	59	17	7	7	77
65°	10	8	3	1	1	15
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°	428.3	428.3	428.3	428.3	428.3
2.5°	427.6	428.3	424.1	428.3	429.0
5°	425.5	424.8	417.9	419.3	418.6
7.5°	421.4	419.3	406.9	404.1	402.8
10°	415.9	410.3	393.8	386.9	384.1
12.5°	406.9	399.3	377.9	366.9	362.8
15°	395.9	386.2	359.3	344.1	338.6
17.5°	382.8	369.0	338.6	322.1	313.8
20°	368.3	349.0	316.5	296.5	288.3
22.5°	351.0	329.7	293.1	271.7	262.8
25°	334.5	307.6	269.7	246.2	235.2
27.5°	313.8	285.5	244.8	220.7	209.0
30°	296.5	264.1	221.4	194.5	183.4
32.5°	275.9	242.1	197.2	167.6	157.2
35°	257.2	220.0	173.1	142.1	129.0
37.5°	237.2	198.6	149.0	116.6	104.1
40°	215.9	177.2	126.9	91.0	77.2
42.5°	196.6	155.9	104.8	67.6	53.8
45°	173.8	135.2	85.5	45.5	29.7
47.5°	153.1	115.9	64.8	25.5	15.9
50°	131.0	95.9	46.2	13.1	10.3
52.5°	108.3	76.6	30.3	9.0	8.3
55°	86.2	59.3	17.2	6.9	6.9
57.5°	64.8	42.8	9.0	5.5	4.8
60°	45.5	28.3	5.5	4.1	3.4
62.5°	26.2	16.6	4.1	2.8	2.8
65°	10.3	7.6	2.8	1.4	1.4
67.5°	0.7	2.1	1.4	0.7	0.7
70°	0.0	0.0	0.7	0.7	0.7
72.5°	0.0	0.0	0.7	0.7	0.7
75°	0.0	0.0	0.0	0.0	0.7
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)