

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 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: S123RDRP-S560D835-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
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: S123RDRP-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

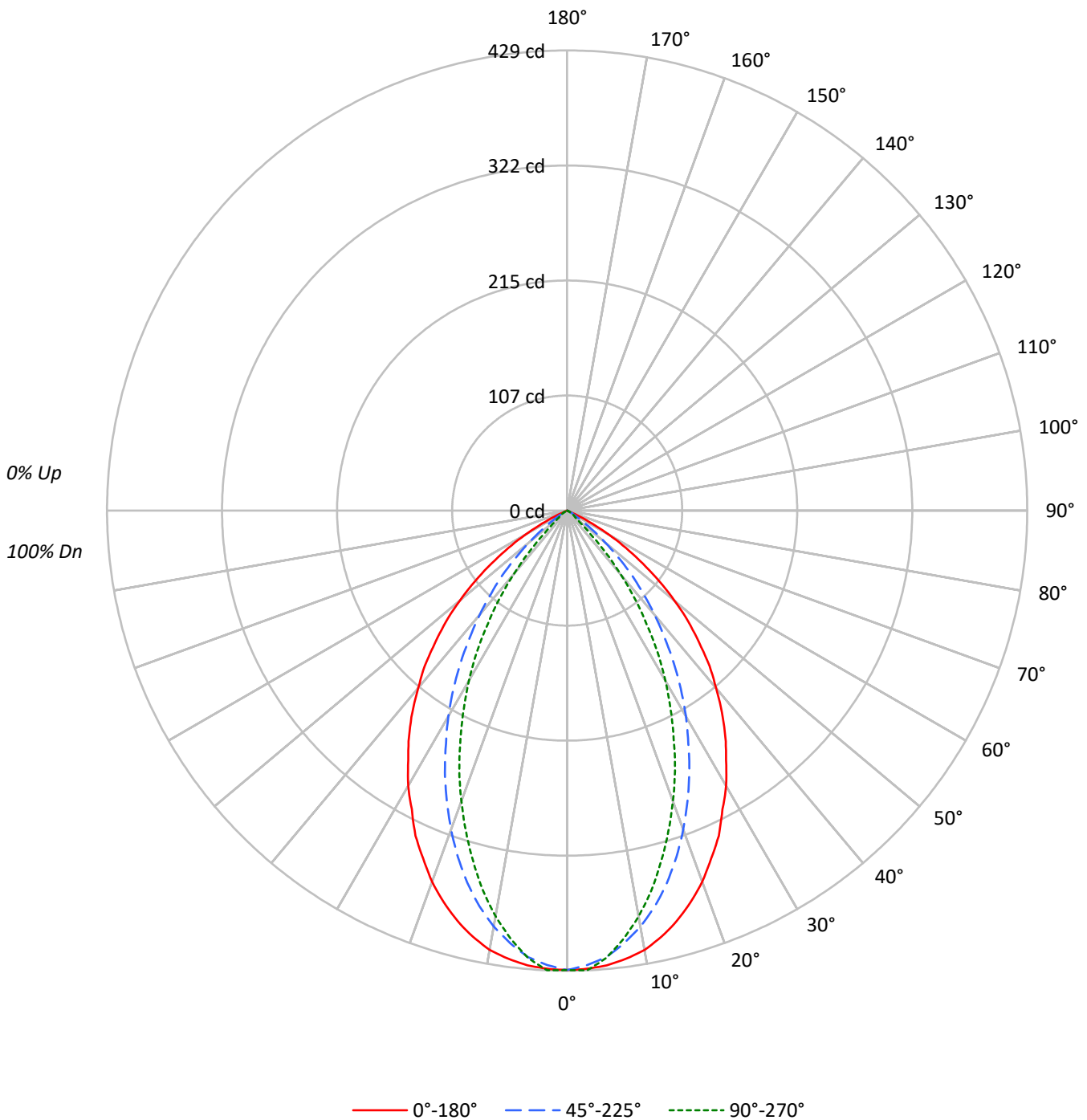
Lumens per Lamp: N/A
Luminaire Lumens: 488.7 lumens
Efficiency: N/A
Efficacy: 24.9 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (A_{in}): 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

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	10.81	11.98	11.17	12.30	12.61	0.00	0.00	0.00	0.00	0.00
	3H	10.65	11.68	11.03	12.01	12.38	0.00	0.00	0.00	0.00	0.00
	4H	10.56	11.52	10.97	11.87	12.25	0.00	0.00	0.00	0.00	0.00
	6H	10.47	11.34	10.88	11.71	12.11	0.00	0.00	0.00	0.00	0.00
	8H	10.42	11.24	10.85	11.63	12.04	0.00	0.00	0.00	0.00	0.00
	12H	10.37	11.15	10.80	11.54	11.97	0.00	0.00	0.00	0.00	0.00
4H	2H	10.57	11.52	10.97	11.87	12.26	0.00	0.00	0.00	0.00	0.00
	3H	10.40	11.17	10.82	11.58	11.98	0.00	0.00	0.00	0.00	0.00
	4H	10.30	10.98	10.73	11.40	11.85	0.00	0.00	0.00	0.00	0.00
	6H	10.20	10.78	10.67	11.23	11.70	0.00	0.00	0.00	0.00	0.00
	8H	10.13	10.68	10.61	11.13	11.60	0.00	0.00	0.00	0.00	0.00
	12H	10.08	10.55	10.57	11.04	11.52	0.00	0.00	0.00	0.00	0.00
8H	4H	10.13	10.68	10.61	11.13	11.60	0.00	0.00	0.00	0.00	0.00
	6H	10.02	10.46	10.52	10.96	11.44	0.00	0.00	0.00	0.00	0.00
	8H	9.95	10.34	10.47	10.86	11.36	0.00	0.00	0.00	0.00	0.00
	12H	9.89	10.24	10.41	10.74	11.31	0.00	0.00	0.00	0.00	0.00
12H	4H	10.08	10.55	10.57	11.04	11.52	0.00	0.00	0.00	0.00	0.00
	6H	9.95	10.34	10.47	10.86	11.36	0.00	0.00	0.00	0.00	0.00
	8H	9.89	10.24	10.41	10.74	11.31	0.00	0.00	0.00	0.00	0.00