

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: P1059259

Luminaire Tested: S123RDRP-S560D835-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059259
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S560D835-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

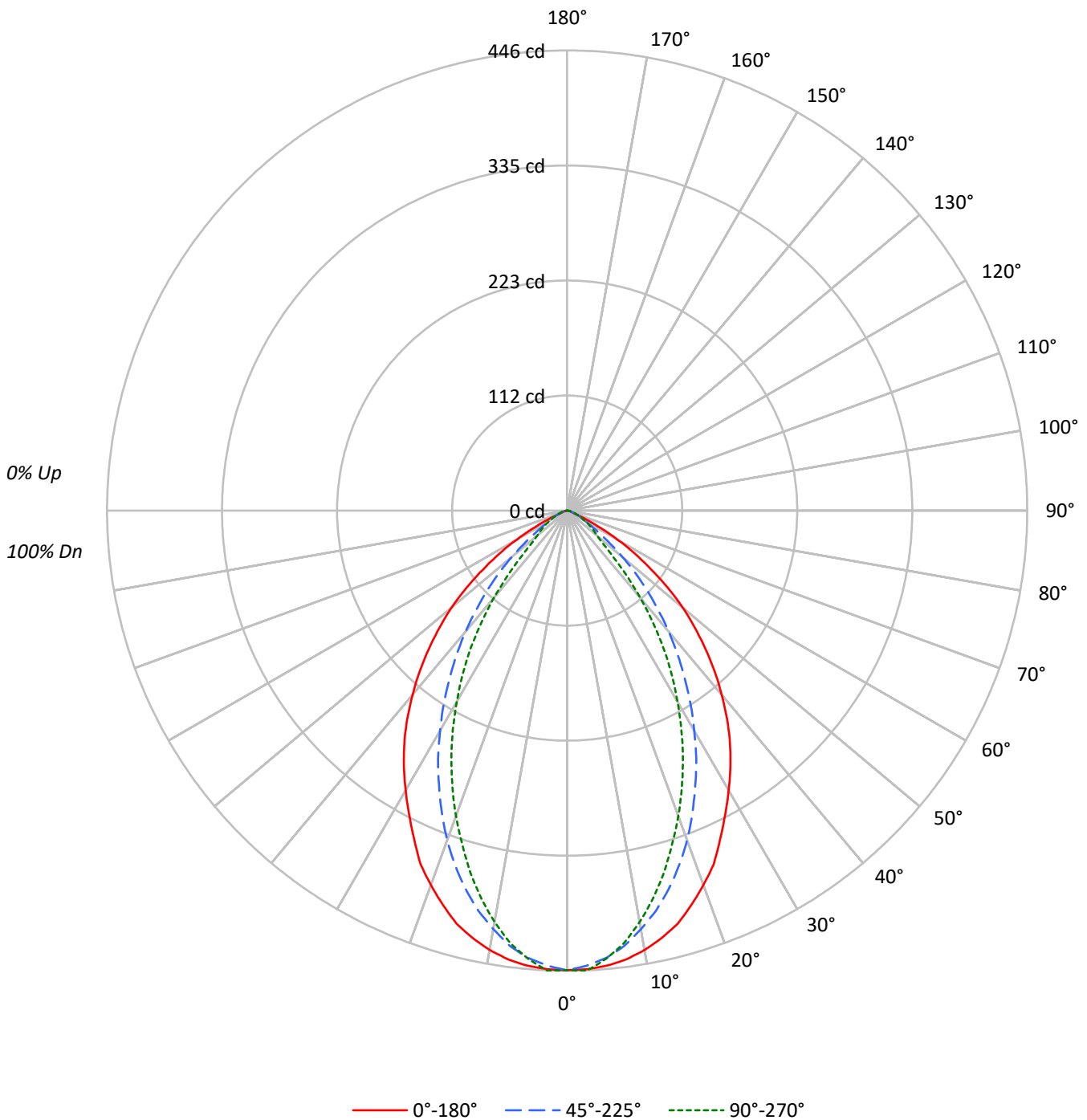
Lumens per Lamp: N/A
Luminaire Lumens: 575.2 lumens
Efficiency: N/A
Efficacy: 29.3 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5231	5231	5231
5°	5219	5130	5138
10°	5156	4910	4828
15°	5039	4620	4410
20°	4826	4249	3939
25°	4549	3807	3440
30°	4245	3338	2899
35°	3945	2847	2334
40°	3573	2347	1692
45°	3150	1822	1020
50°	2671	1273	692
55°	2033	762	579
60°	1329	486	453
65°	556	364	364
70°	189	261	285
75°	154	186	218
80°	95	142	189
85°	94	94	189

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3150 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.1	7.2
10°-20°	107.7	18.7
20°-30°	138.1	24.0
30°-40°	129.6	22.5
40°-50°	90.4	15.7
50°-60°	46.7	8.1
60°-70°	16.0	2.8
70°-80°	4.6	0.8
80°-90°	1.0	0.2
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°	286.9	49.9
0°-40°	416.5	72.4
0°-60°	553.7	96.3
0°-90°	575.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	575.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	446	446	446	446	446	
5°	443	442	435	437	436	42
15°	414	404	380	368	363	116
25°	351	329	294	274	266	161
35°	275	241	199	173	163	171
45°	190	155	110	76	61	146
55°	99	74	37	29	28	89
65°	20	17	13	12	13	24
75°	3	3	4	5	5	3
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	445.5	445.5	445.5	445.5	445.5
2.5°	444.9	445.5	441.4	445.5	446.2
5°	442.8	442.1	435.2	437.3	435.9
7.5°	438.7	436.6	425.5	422.8	422.8
10°	432.4	428.3	411.8	406.9	404.9
12.5°	424.2	418.6	397.3	388.3	384.9
15°	414.5	404.2	380.0	367.6	362.8
17.5°	400.7	386.9	360.7	346.2	338.6
20°	386.2	369.0	340.0	322.8	315.2
22.5°	371.1	350.4	317.3	298.6	290.4
25°	351.1	329.0	293.8	273.8	265.5
27.5°	331.7	308.3	271.1	248.3	240.0
30°	313.1	285.5	246.2	224.2	213.8
32.5°	294.5	263.5	222.8	198.6	189.0
35°	275.2	241.4	198.6	173.1	162.8
37.5°	254.5	220.0	175.9	148.3	135.9
40°	233.1	197.3	153.1	122.1	110.4
42.5°	211.7	176.6	130.4	98.6	84.8
45°	189.7	155.2	109.7	75.9	61.4
47.5°	167.6	133.8	89.7	55.2	46.2
50°	146.2	113.8	69.7	40.7	37.9
52.5°	122.8	94.5	52.4	33.8	33.1
55°	99.3	74.5	37.2	29.0	28.3
57.5°	78.6	57.9	26.9	24.1	23.4
60°	56.6	41.4	20.7	20.0	19.3
62.5°	37.2	28.3	16.6	15.9	15.9
65°	20.0	17.2	13.1	12.4	13.1
67.5°	8.3	9.7	9.7	10.3	10.3
70°	5.5	6.2	7.6	8.3	8.3
72.5°	4.1	4.8	5.5	6.2	6.2
75°	3.4	3.4	4.1	4.8	4.8
77.5°	2.1	2.8	2.8	3.4	4.1
80°	1.4	2.1	2.1	2.8	2.8
82.5°	0.7	1.4	1.4	2.1	2.1
85°	0.7	0.7	0.7	0.7	1.4
87.5°	0.0	0.0	0.0	0.0	0.7
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	12.08	13.34	12.44	13.65	13.97	5.58	6.84	5.94	7.15	7.46
	3H	12.03	13.14	12.41	13.47	13.84	6.35	7.46	6.73	7.79	8.16
	4H	11.98	13.01	12.38	13.36	13.74	6.55	7.58	6.96	7.93	8.32
	6H	11.91	12.85	12.32	13.22	13.62	6.69	7.64	7.11	8.01	8.40
	8H	11.87	12.76	12.30	13.15	13.55	6.73	7.63	7.17	8.02	8.42
	12H	11.82	12.67	12.26	13.06	13.49	6.75	7.60	7.19	7.99	8.42
4H	2H	11.92	12.95	12.33	13.31	13.69	5.83	6.86	6.24	7.22	7.60
	3H	11.91	12.75	12.32	13.15	13.55	6.74	7.58	7.16	7.98	8.39
	4H	11.86	12.60	12.29	13.02	13.47	7.01	7.76	7.45	8.18	8.62
	6H	11.80	12.44	12.27	12.89	13.36	7.23	7.87	7.69	8.31	8.78
	8H	11.75	12.34	12.22	12.79	13.26	7.29	7.89	7.77	8.34	8.81
	12H	11.70	12.23	12.19	12.71	13.19	7.34	7.86	7.82	8.34	8.82
8H	4H	11.74	12.34	12.22	12.79	13.26	7.00	7.59	7.47	8.04	8.51
	6H	11.68	12.17	12.19	12.67	13.15	7.27	7.75	7.77	8.25	8.73
	8H	11.63	12.07	12.16	12.59	13.08	7.38	7.82	7.91	8.33	8.83
	12H	11.60	11.98	12.11	12.48	13.05	7.46	7.84	7.97	8.34	8.91
12H	4H	11.70	12.22	12.19	12.71	13.18	6.96	7.48	7.45	7.97	8.44
	6H	11.63	12.06	12.15	12.58	13.07	7.23	7.67	7.75	8.18	8.68
	8H	11.60	11.98	12.11	12.48	13.05	7.37	7.76	7.89	8.26	8.83