

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: P1059274

Luminaire Tested: S123RDRP-S560D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
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: S123RDRP-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

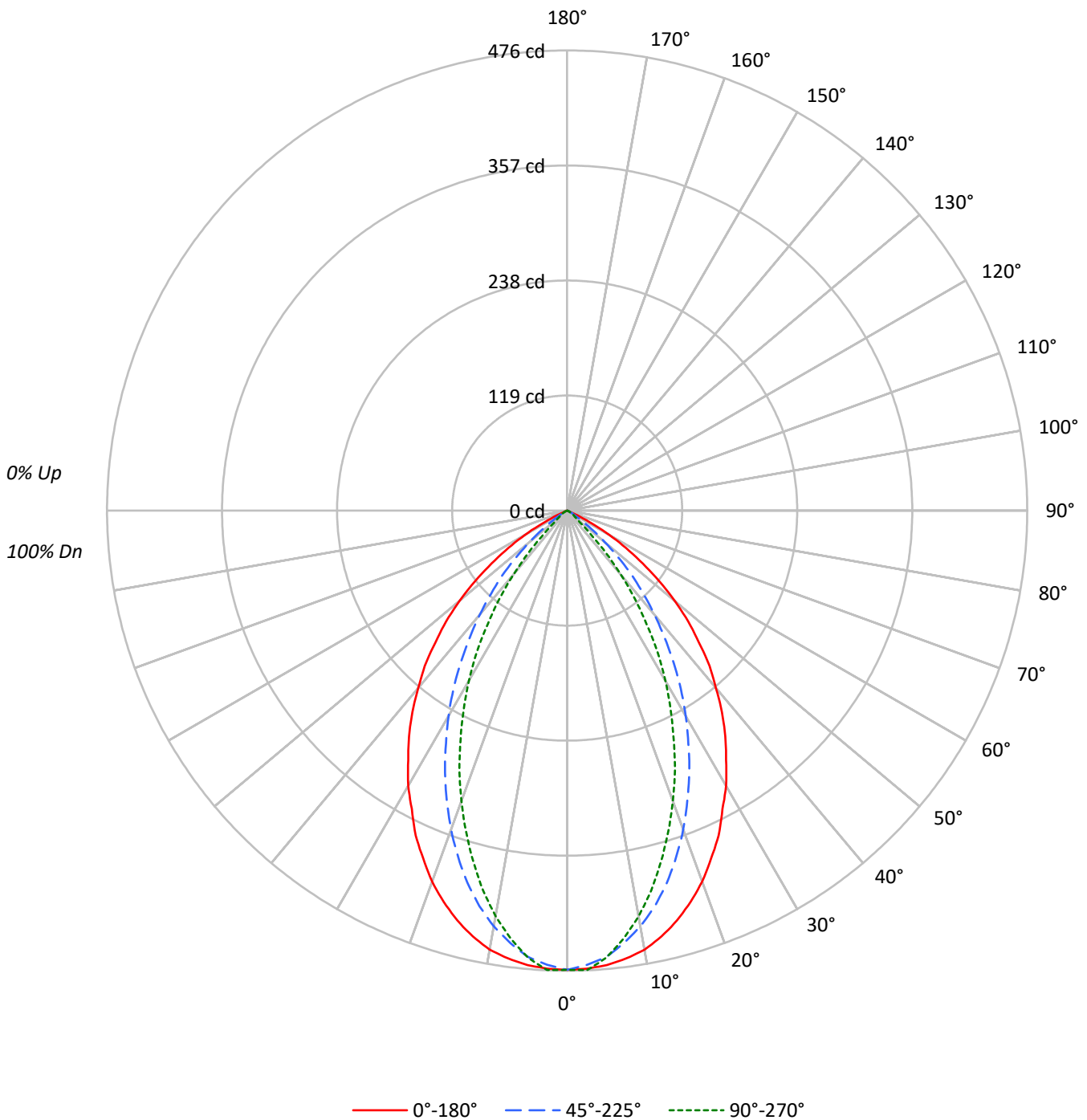
Lumens per Lamp: N/A
Luminaire Lumens: 542.0 lumens
Efficiency: N/A
Efficacy: 27.7 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (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°	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



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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	11.16	12.34	11.52	12.65	12.96	0.00	0.00	0.00	0.00	0.00
	3H	11.00	12.03	11.38	12.36	12.73	0.00	0.00	0.00	0.00	0.00
	4H	10.91	11.87	11.32	12.22	12.61	0.00	0.00	0.00	0.00	0.00
	6H	10.82	11.69	11.24	12.07	12.46	0.00	0.00	0.00	0.00	0.00
	8H	10.77	11.59	11.21	11.99	12.39	0.00	0.00	0.00	0.00	0.00
	12H	10.72	11.51	11.16	11.89	12.32	0.00	0.00	0.00	0.00	0.00
4H	2H	10.92	11.87	11.32	12.23	12.61	0.00	0.00	0.00	0.00	0.00
	3H	10.75	11.52	11.17	11.93	12.33	0.00	0.00	0.00	0.00	0.00
	4H	10.65	11.33	11.09	11.75	12.20	0.00	0.00	0.00	0.00	0.00
	6H	10.55	11.14	11.02	11.59	12.06	0.00	0.00	0.00	0.00	0.00
	8H	10.49	11.03	10.96	11.48	11.96	0.00	0.00	0.00	0.00	0.00
	12H	10.43	10.91	10.92	11.39	11.87	0.00	0.00	0.00	0.00	0.00
8H	4H	10.49	11.03	10.96	11.48	11.96	0.00	0.00	0.00	0.00	0.00
	6H	10.37	10.81	10.88	11.31	11.80	0.00	0.00	0.00	0.00	0.00
	8H	10.30	10.70	10.83	11.22	11.71	0.00	0.00	0.00	0.00	0.00
	12H	10.25	10.60	10.76	11.09	11.67	0.00	0.00	0.00	0.00	0.00
12H	4H	10.43	10.91	10.92	11.39	11.87	0.00	0.00	0.00	0.00	0.00
	6H	10.30	10.70	10.83	11.22	11.71	0.00	0.00	0.00	0.00	0.00
	8H	10.25	10.60	10.76	11.09	11.67	0.00	0.00	0.00	0.00	0.00