

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: P1059325

Luminaire Tested: S123RDRP-S560D950-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059325
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: S123RDRP-S560D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

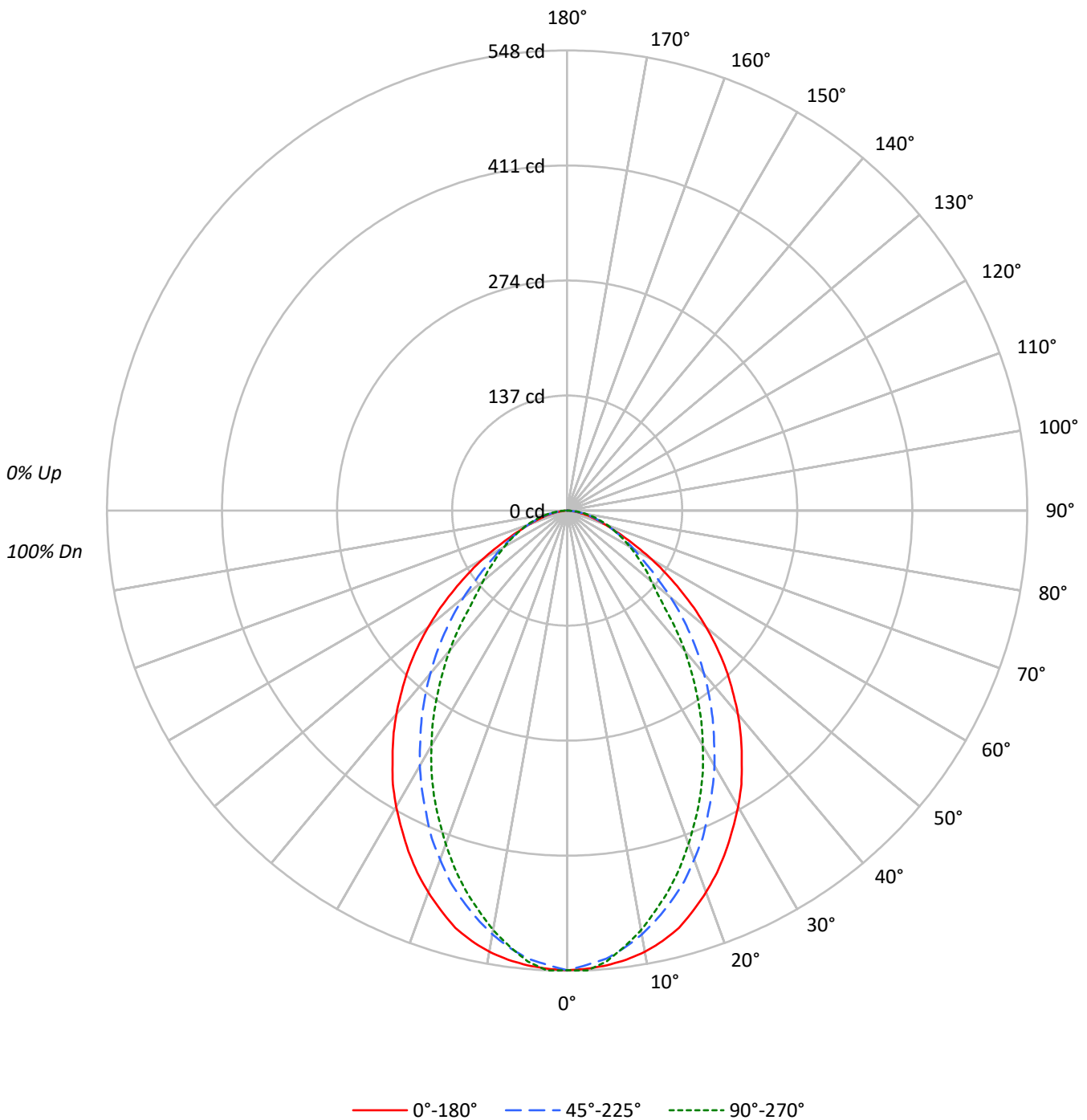
Lumens per Lamp: N/A
Luminaire Lumens: 957.5 lumens
Efficiency: N/A
Efficacy: 48.9 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (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	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									100																			
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88									88																			
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76									76																			
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66									66																			
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58									58																			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52									52																			
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47									47																			
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42									42																			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38									38																			
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35									35																			
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32									32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6428	6428	6428
5°	6406	6313	6352
10°	6362	6112	6049
15°	6255	5847	5687
20°	6043	5526	5278
25°	5797	5149	4859
30°	5523	4755	4381
35°	5196	4329	3876
40°	4852	3883	3339
45°	4447	3431	2742
50°	3942	2945	2380
55°	3353	2465	2182
60°	2736	2149	2024
65°	2084	1900	1884
70°	1627	1693	1761
75°	1316	1524	1642
80°	981	1244	1515
85°	525	795	1334

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4447 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.8	5.3
10°-20°	136.7	14.3
20°-30°	185.9	19.4
30°-40°	192.7	20.1
40°-50°	162.5	17.0
50°-60°	115.3	12.0
60°-70°	70.5	7.4
70°-80°	35.1	3.7
80°-90°	8.0	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°	373.4	39.0
0°-40°	566.1	59.1
0°-60°	843.9	88.1
0°-90°	957.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	957.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	547	547	547	547	547	
5°	544	544	536	539	539	52
15°	514	505	481	472	468	144
25°	447	428	397	383	375	206
35°	362	335	302	281	270	227
45°	268	240	207	178	165	206
55°	164	147	120	110	107	147
65°	75	72	68	68	68	77
75°	29	31	34	35	36	31
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°	547.4	547.4	547.4	547.4	547.4
2.5°	546.1	546.8	541.5	547.4	548.1
5°	543.5	543.5	535.6	538.9	538.9
7.5°	539.5	538.2	525.1	525.1	523.7
10°	533.6	529.7	512.6	509.3	507.3
12.5°	525.1	518.5	497.4	491.5	487.6
15°	514.5	504.7	481.0	472.4	467.8
17.5°	499.4	489.5	463.2	451.4	446.1
20°	483.6	469.1	442.2	430.3	422.4
22.5°	466.5	448.1	421.8	407.3	398.7
25°	447.4	427.7	397.4	382.9	375.0
27.5°	427.0	405.3	374.4	357.9	350.0
30°	407.3	382.3	350.7	332.3	323.1
32.5°	386.2	357.9	325.7	306.6	297.4
35°	362.5	334.9	302.0	281.0	270.4
37.5°	340.2	311.9	277.7	255.3	243.4
40°	316.5	288.2	253.3	230.3	217.8
42.5°	291.5	264.5	230.3	203.3	191.5
45°	267.8	239.5	206.6	178.3	165.1
47.5°	242.1	215.8	183.6	154.6	145.4
50°	215.8	191.5	161.2	134.9	130.3
52.5°	190.2	169.8	138.8	121.7	119.7
55°	163.8	146.7	120.4	109.9	106.6
57.5°	139.5	127.0	103.3	98.0	96.7
60°	116.5	105.9	91.5	88.2	86.2
62.5°	94.1	88.2	79.6	78.3	77.0
65°	75.0	72.4	68.4	68.4	67.8
67.5°	59.2	59.2	58.6	59.9	59.2
70°	47.4	48.0	49.3	50.7	51.3
72.5°	37.5	39.5	40.8	42.8	43.4
75°	29.0	30.9	33.6	34.9	36.2
77.5°	21.1	23.0	25.7	27.6	29.0
80°	14.5	15.8	18.4	21.1	22.4
82.5°	9.2	9.9	11.8	14.5	15.8
85°	3.9	4.6	5.9	8.6	9.9
87.5°	0.0	0.0	0.7	2.6	4.6
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	15.27	16.72	15.64	17.04	17.35	13.37	14.82	13.73	15.13	15.45
	3H	16.17	17.47	16.55	17.79	18.16	14.94	16.24	15.32	16.57	16.93
	4H	16.45	17.67	16.85	18.02	18.40	15.54	16.75	15.94	17.10	17.48
	6H	16.60	17.72	17.02	18.09	18.48	15.99	17.11	16.40	17.48	17.87
	8H	16.63	17.69	17.05	18.08	18.48	16.14	17.20	16.57	17.59	17.99
	12H	16.62	17.64	17.05	18.02	18.45	16.24	17.26	16.67	17.64	18.07
4H	2H	15.52	16.73	15.92	17.08	17.46	13.91	15.12	14.31	15.47	15.85
	3H	16.63	17.63	17.04	18.03	18.43	15.68	16.69	16.10	17.09	17.49
	4H	17.02	17.92	17.45	18.34	18.78	16.40	17.30	16.83	17.71	18.15
	6H	17.26	18.04	17.72	18.49	18.95	16.97	17.75	17.43	18.19	18.65
	8H	17.31	18.03	17.77	18.48	18.95	17.16	17.89	17.63	18.33	18.80
	12H	17.31	17.96	17.80	18.44	18.91	17.30	17.95	17.79	18.43	18.90
8H	4H	17.18	17.91	17.64	18.35	18.82	16.61	17.33	17.07	17.78	18.25
	6H	17.49	18.09	17.99	18.58	19.06	17.28	17.88	17.78	18.38	18.85
	8H	17.57	18.11	18.09	18.62	19.11	17.54	18.08	18.06	18.59	19.08
	12H	17.60	18.08	18.11	18.57	19.14	17.75	18.23	18.26	18.72	19.29
12H	4H	17.18	17.83	17.67	18.31	18.78	16.60	17.25	17.09	17.73	18.20
	6H	17.51	18.04	18.02	18.56	19.04	17.29	17.83	17.81	18.34	18.83
	8H	17.62	18.09	18.13	18.59	19.16	17.60	18.07	18.11	18.56	19.13