

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: P1059321

Luminaire Tested: S123RDRP-S560D950-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059321
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S560D950-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

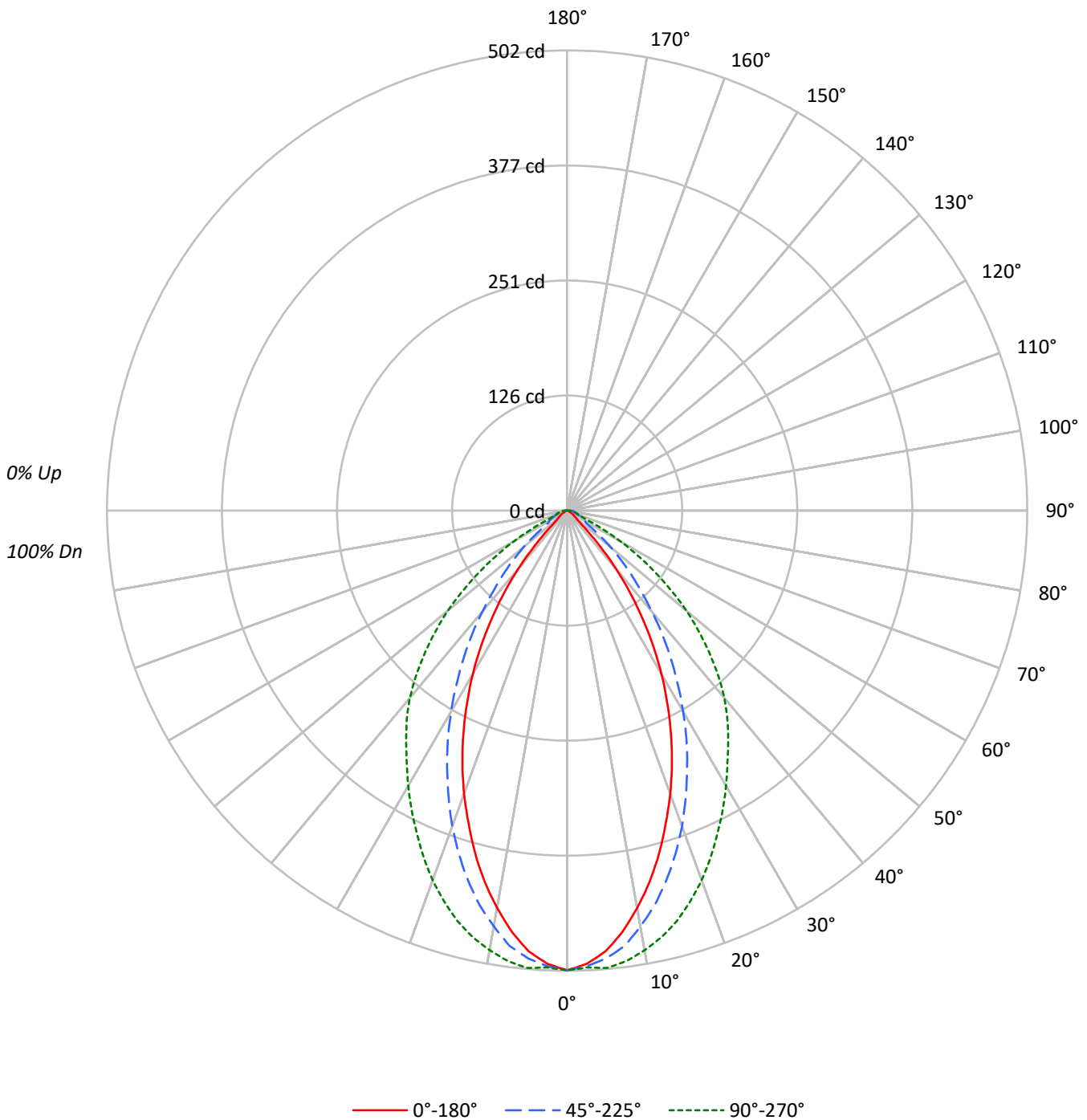
Lumens per Lamp: N/A
Luminaire Lumens: 602.0 lumens
Efficiency: N/A
Efficacy: 30.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5889	5889	5889
5°	5686	5779	5903
10°	5249	5492	5807
15°	4711	5079	5632
20°	4109	4579	5361
25°	3467	4013	5028
30°	2788	3432	4700
35°	2040	2824	4392
40°	1272	2203	4091
45°	482	1641	3643
50°	228	1131	3106
55°	176	620	2401
60°	124	526	1578
65°	92	458	659
70°	89	429	429
75°	118	449	449
80°	176	534	487
85°	350	889	714

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3643 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.0	7.6
10°-20°	118.0	19.6
20°-30°	146.1	24.3
30°-40°	131.0	21.8
40°-50°	85.9	14.3
50°-60°	43.0	7.1
60°-70°	16.8	2.8
70°-80°	9.4	1.6
80°-90°	5.8	1.0
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°	310.2	51.5
0°-40°	441.2	73.3
0°-60°	570.1	94.7
0°-90°	602.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	602.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	502	502	502	502	502	
5°	482	490	490	496	501	45
15°	388	403	418	446	463	108
25°	268	284	310	354	388	122
35°	142	162	197	256	306	89
45°	29	47	99	169	219	28
55°	9	10	30	83	117	8
65°	3	10	16	22	24	3
75°	3	10	10	10	10	3
85°	3	7	7	7	5	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	501.5	501.5	501.5	501.5	501.5
2.5°	494.9	502.2	497.5	498.2	498.9
5°	482.4	490.3	490.3	495.6	500.8
7.5°	463.3	472.5	479.1	488.3	495.6
10°	440.2	451.4	460.6	477.1	487.0
12.5°	415.2	429.0	440.9	462.6	476.5
15°	387.5	403.3	417.8	445.5	463.3
17.5°	357.8	373.6	392.8	425.0	446.8
20°	328.8	344.7	366.4	402.6	429.0
22.5°	298.5	315.0	338.1	378.3	409.2
25°	267.6	284.0	309.7	353.9	388.1
27.5°	236.6	253.1	282.0	330.2	367.7
30°	205.6	222.1	253.1	304.5	346.6
32.5°	174.6	192.4	224.7	280.7	325.5
35°	142.3	161.5	197.0	256.3	306.4
37.5°	112.7	130.5	170.7	235.3	287.3
40°	83.0	102.1	143.7	214.8	266.9
42.5°	54.0	74.5	119.3	192.4	243.8
45°	29.0	46.8	98.8	169.4	219.4
47.5°	15.8	25.7	79.7	145.0	194.4
50°	12.5	14.5	61.9	123.9	170.0
52.5°	10.5	11.9	44.2	104.1	143.0
55°	8.6	10.5	30.3	83.0	117.3
57.5°	7.2	9.2	23.7	64.6	91.6
60°	5.3	7.9	22.4	47.4	67.2
62.5°	4.0	8.6	19.8	32.9	44.2
65°	3.3	9.9	16.5	21.7	23.7
67.5°	2.6	10.5	14.5	13.8	13.8
70°	2.6	9.9	12.5	11.9	12.5
72.5°	2.6	10.5	11.2	10.5	11.2
75°	2.6	9.9	9.9	9.9	9.9
77.5°	2.6	9.2	9.2	8.6	8.6
80°	2.6	7.9	7.9	7.9	7.2
82.5°	2.6	7.2	7.2	7.2	5.9
85°	2.6	6.6	6.6	6.6	5.3
87.5°	2.0	5.9	6.6	5.9	4.0
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	0.00	0.00	0.00	0.06	0.38	12.77	14.02	13.13	14.33	14.65
	3H	0.82	1.93	1.20	2.26	2.63	12.85	13.96	13.23	14.29	14.65
	4H	1.93	2.96	2.33	3.31	3.69	12.92	13.96	13.33	14.31	14.69
	6H	2.91	3.86	3.32	4.23	4.62	13.03	13.98	13.44	14.35	14.74
	8H	3.39	4.28	3.82	4.67	5.08	13.08	13.98	13.52	14.37	14.78
	12H	3.94	4.80	4.37	5.18	5.61	13.17	14.02	13.60	14.41	14.84
4H	2H	1.77	2.80	2.17	3.15	3.54	12.62	13.65	13.02	14.01	14.39
	3H	4.08	4.92	4.49	5.33	5.73	12.80	13.64	13.21	14.05	14.45
	4H	5.45	6.20	5.88	6.62	7.07	12.95	13.70	13.38	14.12	14.57
	6H	6.53	7.18	6.99	7.63	8.10	13.17	13.83	13.64	14.27	14.74
	8H	6.98	7.59	7.45	8.04	8.51	13.30	13.90	13.77	14.35	14.82
	12H	7.47	8.01	7.96	8.49	8.97	13.47	14.01	13.96	14.49	14.97
8H	4H	6.42	7.03	6.89	7.48	7.95	12.94	13.55	13.42	14.00	14.47
	6H	7.94	8.44	8.44	8.94	9.42	13.28	13.78	13.79	14.28	14.76
	8H	8.70	9.15	9.23	9.67	10.16	13.51	13.96	14.03	14.48	14.97
	12H	9.51	9.91	10.02	10.40	10.97	13.85	14.24	14.36	14.74	15.31
12H	4H	6.60	7.14	7.09	7.62	8.10	12.93	13.47	13.42	13.95	14.43
	6H	8.25	8.70	8.78	9.22	9.71	13.30	13.75	13.82	14.27	14.76
	8H	9.20	9.60	9.72	10.09	10.67	13.61	14.00	14.12	14.50	15.07