

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



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059727

Luminaire Tested: S123RDR-H560D950-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059727
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: S123RDR-H560D950-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

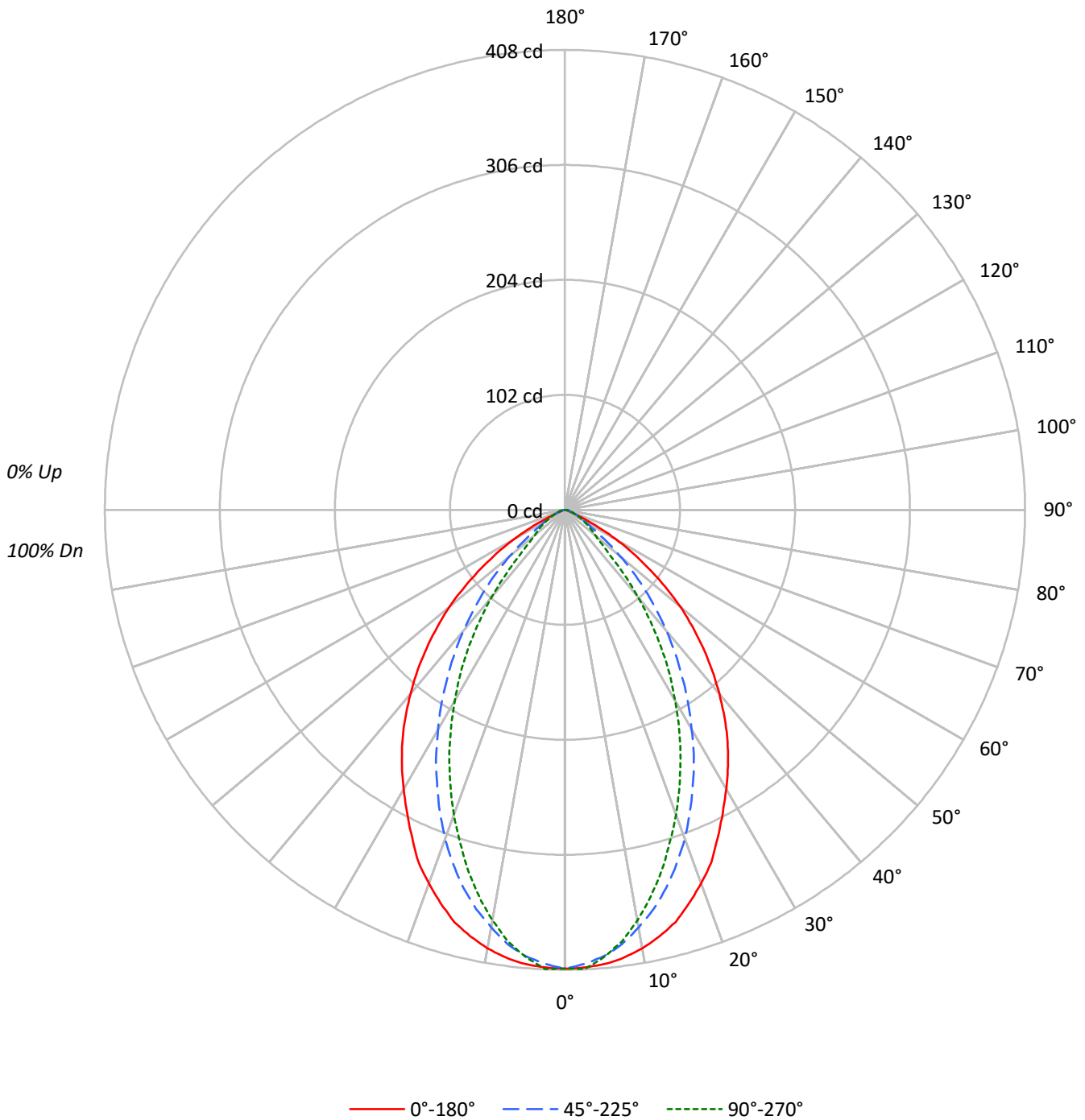
Lumens per Lamp: N/A
Luminaire Lumens: 525.4 lumens
Efficiency: N/A
Efficacy: 30.2 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
Input Voltage (V): 120
Input Current (Ain): 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°	4779	4779	4779
5°	4768	4685	4694
10°	4710	4484	4409
15°	4603	4220	4029
20°	4409	3881	3598
25°	4155	3477	3143
30°	3878	3049	2648
35°	3604	2600	2132
40°	3263	2144	1545
45°	2878	1664	932
50°	2441	1162	634
55°	1857	696	528
60°	1214	444	413
65°	508	333	333
70°	172	237	261
75°	145	172	200
80°	88	128	169
85°	81	81	175

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2878 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.6	7.2
10°-20°	98.4	18.7
20°-30°	126.1	24.0
30°-40°	118.4	22.5
40°-50°	82.6	15.7
50°-60°	42.7	8.1
60°-70°	14.6	2.8
70°-80°	4.2	0.8
80°-90°	0.9	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°	262.1	49.9
0°-40°	380.5	72.4
0°-60°	505.8	96.3
0°-90°	525.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	525.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	407	407	407	407	407	
5°	404	404	398	399	398	38
15°	379	369	347	336	331	106
25°	321	300	268	250	243	147
35°	251	220	181	158	149	157
45°	173	142	100	69	56	133
55°	91	68	34	26	26	82
65°	18	16	12	11	12	22
75°	3	3	4	4	4	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°	407.0	407.0	407.0	407.0	407.0
2.5°	406.4	407.0	403.2	407.0	407.6
5°	404.5	403.8	397.5	399.4	398.2
7.5°	400.7	398.8	388.7	386.2	386.2
10°	395.0	391.2	376.1	371.7	369.8
12.5°	387.5	382.4	362.9	354.7	351.5
15°	378.6	369.2	347.1	335.8	331.4
17.5°	366.0	353.4	329.5	316.3	309.3
20°	352.8	337.1	310.6	294.8	287.9
22.5°	338.9	320.0	289.8	272.8	265.2
25°	320.7	300.5	268.4	250.1	242.6
27.5°	303.0	281.6	247.6	226.8	219.2
30°	286.0	260.8	224.9	204.8	195.3
32.5°	269.0	240.7	203.5	181.4	172.6
35°	251.4	220.5	181.4	158.1	148.7
37.5°	232.5	201.0	160.7	135.5	124.1
40°	212.9	180.2	139.9	111.5	100.8
42.5°	193.4	161.3	119.1	90.1	77.5
45°	173.3	141.8	100.2	69.3	56.1
47.5°	153.1	122.2	81.9	50.4	42.2
50°	133.6	104.0	63.6	37.2	34.7
52.5°	112.1	86.3	47.9	30.9	30.2
55°	90.7	68.0	34.0	26.5	25.8
57.5°	71.8	52.9	24.6	22.1	21.4
60°	51.7	37.8	18.9	18.3	17.6
62.5°	34.0	25.8	15.1	14.5	14.5
65°	18.3	15.8	12.0	11.3	12.0
67.5°	7.6	8.8	8.8	9.5	9.5
70°	5.0	5.7	6.9	7.6	7.6
72.5°	3.8	4.4	5.0	5.7	5.7
75°	3.2	3.2	3.8	4.4	4.4
77.5°	1.9	2.5	2.5	3.2	3.8
80°	1.3	1.9	1.9	2.5	2.5
82.5°	0.6	1.3	1.3	1.9	1.9
85°	0.6	0.6	0.6	0.6	1.3
87.5°	0.0	0.0	0.0	0.0	0.6
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	11.76	13.02	12.13	13.34	13.65	5.28	6.54	5.65	6.86	7.17
	3H	11.72	12.83	12.10	13.16	13.52	6.06	7.17	6.44	7.50	7.87
	4H	11.67	12.70	12.07	13.05	13.43	6.27	7.30	6.67	7.65	8.03
	6H	11.60	12.54	12.01	12.91	13.31	6.41	7.35	6.83	7.72	8.12
	8H	11.55	12.44	11.98	12.84	13.24	6.45	7.34	6.88	7.73	8.13
	12H	11.51	12.36	11.94	12.74	13.17	6.46	7.32	6.90	7.70	8.13
4H	2H	11.61	12.64	12.02	12.99	13.38	5.54	6.57	5.94	6.92	7.31
	3H	11.60	12.43	12.01	12.84	13.24	6.45	7.29	6.87	7.69	8.10
	4H	11.55	12.29	11.98	12.71	13.15	6.72	7.47	7.16	7.89	8.33
	6H	11.49	12.13	11.95	12.57	13.04	6.94	7.58	7.41	8.03	8.50
	8H	11.44	12.03	11.91	12.48	12.95	7.00	7.60	7.47	8.05	8.52
	12H	11.39	11.91	11.88	12.40	12.87	7.04	7.57	7.53	8.05	8.53
8H	4H	11.43	12.03	11.90	12.48	12.95	6.71	7.30	7.18	7.75	8.22
	6H	11.37	11.85	11.88	12.35	12.84	6.98	7.46	7.48	7.96	8.44
	8H	11.32	11.76	11.85	12.27	12.77	7.08	7.52	7.61	8.04	8.53
	12H	11.28	11.67	11.80	12.16	12.74	7.16	7.54	7.68	8.04	8.61
12H	4H	11.39	11.91	11.87	12.40	12.87	6.67	7.19	7.16	7.68	8.15
	6H	11.31	11.75	11.84	12.27	12.76	6.94	7.37	7.46	7.89	8.38
	8H	11.28	11.67	11.80	12.16	12.74	7.08	7.46	7.59	7.96	8.53