

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: P1059728

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059728
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)
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-S
Description: DEFINE 3 SILVER 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

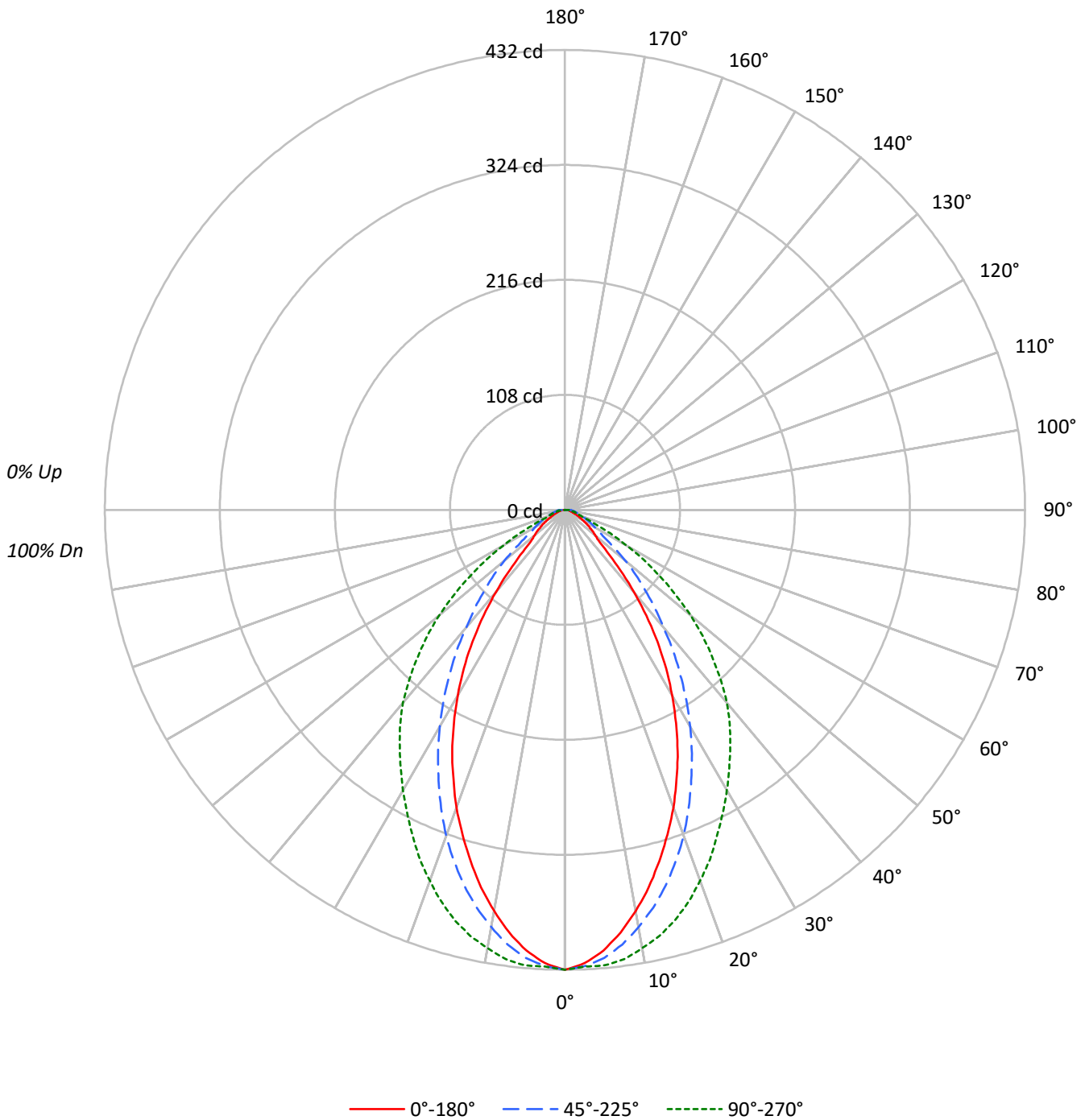
Lumens per Lamp: N/A
Luminaire Lumens: 578.6 lumens
Efficiency: N/A
Efficacy: 33.3 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64				
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58				
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52				
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				
8	70	58	51	46	69	58	51	46	57	50	46	56	50	46	54	49	45	44				
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5073	5073	5073
5°	4899	4981	5063
10°	4564	4746	4985
15°	4155	4440	4853
20°	3720	4075	4634
25°	3244	3637	4379
30°	2728	3189	4122
35°	2170	2704	3879
40°	1547	2204	3625
45°	922	1770	3247
50°	680	1348	2811
55°	567	917	2234
60°	460	756	1571
65°	367	647	842
70°	302	563	518
75°	286	544	485
80°	298	595	467
85°	431	849	593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3247 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.7	6.9
10°-20°	103.1	17.8
20°-30°	131.5	22.7
30°-40°	123.7	21.4
40°-50°	88.9	15.4
50°-60°	51.0	8.8
60°-70°	23.3	4.0
70°-80°	11.7	2.0
80°-90°	5.7	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°	274.3	47.4
0°-40°	398.0	68.8
0°-60°	537.9	93.0
0°-90°	578.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	578.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	432	432	432	432	432	
5°	416	424	423	426	430	39
15°	342	354	365	385	399	96
25°	250	262	281	311	338	114
35°	151	162	189	232	271	94
45°	56	68	107	157	196	46
55°	28	28	45	83	109	25
65°	13	18	23	26	30	13
75°	6	13	12	11	11	7
85°	3	6	6	6	4	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	432.0	432.0	432.0	432.0	432.0
2.5°	426.3	432.6	428.9	428.9	429.5
5°	415.6	423.8	422.6	425.7	429.5
7.5°	400.5	409.3	411.8	419.4	425.7
10°	382.8	392.9	398.0	409.9	418.1
12.5°	363.3	374.6	382.8	398.0	409.9
15°	341.8	353.8	365.2	384.7	399.2
17.5°	319.8	331.7	346.2	368.9	386.0
20°	297.7	309.7	326.1	350.0	370.8
22.5°	273.7	285.7	303.4	330.5	355.7
25°	250.4	261.7	280.7	310.9	338.0
27.5°	225.8	237.1	257.9	290.7	321.0
30°	201.2	212.5	235.2	270.6	304.0
32.5°	176.6	187.3	211.9	251.0	287.0
35°	151.4	162.1	188.6	231.5	270.6
37.5°	125.5	136.2	167.1	213.8	254.2
40°	100.9	112.9	143.8	196.1	236.5
42.5°	76.9	89.6	124.9	177.2	216.3
45°	55.5	67.5	106.6	157.0	195.5
47.5°	42.3	48.6	90.2	136.9	175.3
50°	37.2	37.8	73.8	118.6	153.9
52.5°	32.2	32.8	57.4	100.9	131.2
55°	27.7	28.4	44.8	82.6	109.1
57.5°	23.3	24.6	36.6	65.6	87.7
60°	19.6	22.1	32.2	49.8	66.9
62.5°	15.8	20.2	27.7	36.6	47.9
65°	13.2	18.3	23.3	25.9	30.3
67.5°	10.7	17.0	19.6	18.3	18.3
70°	8.8	15.1	16.4	15.1	15.1
72.5°	7.6	14.5	13.9	12.6	12.6
75°	6.3	12.6	12.0	10.7	10.7
77.5°	5.7	10.7	10.1	9.5	8.8
80°	4.4	8.8	8.8	8.2	6.9
82.5°	3.8	7.6	7.6	6.9	5.7
85°	3.2	6.3	6.3	5.7	4.4
87.5°	2.5	5.7	5.7	5.0	3.2
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	5.63	6.94	5.99	7.26	7.57	12.85	14.17	13.22	14.48	14.80
	3H	7.02	8.19	7.40	8.52	8.88	13.09	14.26	13.47	14.59	14.95
	4H	7.58	8.67	7.99	9.02	9.41	13.19	14.28	13.60	14.63	15.02
	6H	8.04	9.05	8.46	9.42	9.81	13.30	14.30	13.71	14.67	15.06
	8H	8.23	9.18	8.66	9.57	9.98	13.35	14.30	13.78	14.69	15.09
	12H	8.43	9.33	8.86	9.72	10.15	13.40	14.31	13.83	14.69	15.12
4H	2H	6.70	7.79	7.10	8.14	8.52	12.81	13.90	13.21	14.25	14.63
	3H	8.38	9.28	8.80	9.68	10.08	13.18	14.07	13.59	14.48	14.88
	4H	9.22	10.02	9.65	10.44	10.88	13.36	14.16	13.80	14.58	15.02
	6H	9.88	10.57	10.34	11.01	11.48	13.58	14.27	14.05	14.72	15.19
	8H	10.13	10.78	10.60	11.22	11.70	13.68	14.33	14.15	14.78	15.25
	12H	10.39	10.96	10.88	11.45	11.92	13.80	14.37	14.29	14.86	15.33
8H	4H	9.65	10.30	10.12	10.75	11.22	13.41	14.05	13.88	14.50	14.97
	6H	10.60	11.13	11.11	11.63	12.11	13.74	14.27	14.24	14.77	15.25
	8H	11.07	11.55	11.59	12.06	12.56	13.93	14.40	14.45	14.92	15.41
	12H	11.56	11.98	12.07	12.47	13.04	14.16	14.58	14.68	15.08	15.65
12H	4H	9.71	10.29	10.20	10.77	11.24	13.40	13.97	13.89	14.45	14.93
	6H	10.75	11.23	11.27	11.74	12.24	13.77	14.24	14.29	14.76	15.25
	8H	11.35	11.77	11.86	12.27	12.84	14.03	14.45	14.54	14.94	15.51