

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: P1060826

Luminaire Tested: S124RDR-H350D927-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060826
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-77)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H350D927-X4F0-XX-UDD-SVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

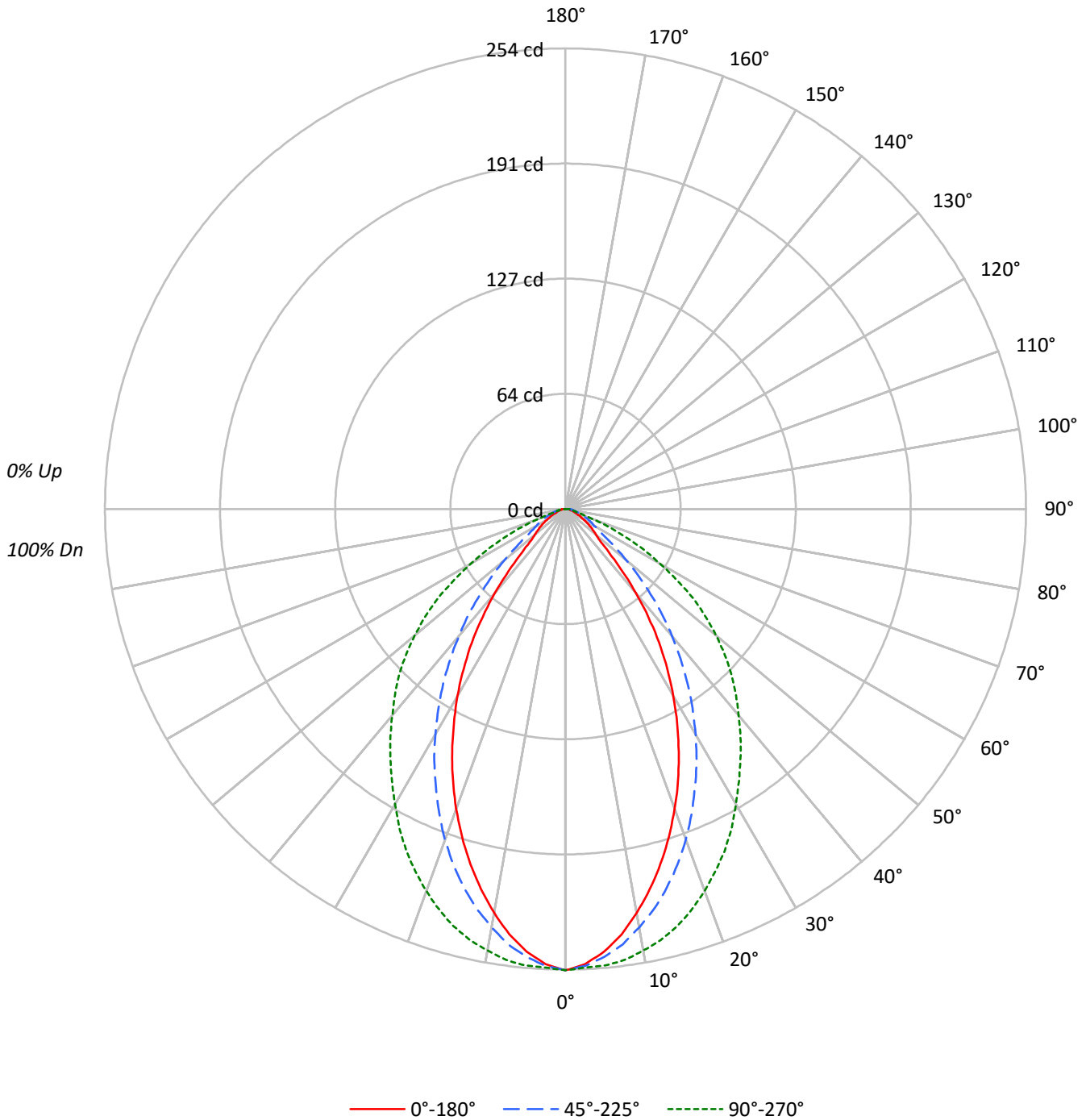
Lumens per Lamp: N/A
Luminaire Lumens: 357.7 lumens
Efficiency: N/A
Efficacy: 30.6 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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				100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	72	67	77	71	67	75	70	66	73	68	65	63				63
5	84	73	66	61	82	72	65	60	70	64	60	69	63	59	67	62	59	57				57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51				51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47				47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	45	43				43
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2191	2191	2191
5°	2118	2143	2185
10°	1978	2049	2162
15°	1806	1927	2124
20°	1614	1780	2055
25°	1405	1606	1974
30°	1184	1426	1869
35°	946	1235	1769
40°	680	1026	1670
45°	410	809	1581
50°	295	585	1452
55°	248	393	1288
60°	202	312	1037
65°	159	283	746
70°	138	237	400
75°	130	216	193
80°	129	223	179
85°	188	316	227

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1581 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.4	6.5
10°-20°	61.2	17.1
20°-30°	79.4	22.2
30°-40°	76.3	21.3
40°-50°	56.6	15.8
50°-60°	34.7	9.7
60°-70°	16.8	4.7
70°-80°	6.4	1.8
80°-90°	2.9	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°	163.9	45.8
0°-40°	240.3	67.2
0°-60°	331.6	92.7
0°-90°	357.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	357.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	254	254	254	254	254	
5°	245	249	248	250	253	23
15°	203	208	216	229	238	57
25°	148	155	169	191	208	68
35°	90	98	118	145	168	56
45°	34	42	66	101	130	28
55°	16	17	26	59	86	15
65°	8	8	14	22	37	8
75°	4	6	6	6	6	4
85°	2	3	3	3	2	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	254.4	254.4	254.4	254.4	254.4
2.5°	251.2	254.1	252.1	252.8	253.1
5°	245.0	248.6	247.9	250.2	252.8
7.5°	236.6	240.8	242.1	246.6	250.8
10°	226.2	231.4	234.3	241.8	247.3
12.5°	214.9	220.4	225.9	235.9	243.4
15°	202.6	208.4	216.2	229.2	238.2
17.5°	189.7	196.1	205.5	221.1	231.7
20°	176.1	182.9	194.2	211.4	224.3
22.5°	162.2	169.3	181.9	201.0	216.2
25°	147.9	155.4	169.0	190.6	207.8
27.5°	133.3	141.1	156.7	179.6	198.4
30°	119.1	126.6	143.4	168.3	188.0
32.5°	104.5	112.3	130.4	156.7	178.0
35°	90.0	98.1	117.5	145.3	168.3
37.5°	75.1	83.8	104.2	134.3	158.6
40°	60.5	68.9	91.3	123.0	148.6
42.5°	46.3	55.3	79.0	111.7	139.2
45°	33.7	42.1	66.4	101.3	129.8
47.5°	25.2	30.4	54.7	91.6	119.4
50°	22.0	23.0	43.7	80.9	108.4
52.5°	19.1	19.7	34.0	69.3	97.4
55°	16.5	17.2	26.2	59.2	85.8
57.5°	13.9	14.6	21.0	49.5	72.5
60°	11.7	12.3	18.1	39.5	60.2
62.5°	9.7	10.0	16.2	30.1	48.2
65°	7.8	8.4	13.9	22.0	36.6
67.5°	6.5	7.1	11.3	15.2	25.6
70°	5.5	7.1	9.4	10.7	15.9
72.5°	4.5	6.5	7.8	7.4	7.4
75°	3.9	6.1	6.5	5.8	5.8
77.5°	3.2	5.5	5.2	4.9	4.5
80°	2.6	4.5	4.5	3.9	3.6
82.5°	2.3	3.6	3.6	3.6	2.9
85°	1.9	3.2	3.2	2.9	2.3
87.5°	1.3	2.6	2.9	2.6	1.6
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	2.55	3.89	2.91	4.20	4.52	11.64	12.97	12.00	13.29	13.60
	3H	3.59	4.78	3.97	5.11	5.47	12.14	13.33	12.52	13.66	14.02
	4H	4.10	5.21	4.50	5.56	5.94	12.15	13.26	12.55	13.61	13.99
	6H	4.55	5.56	4.96	5.93	6.33	12.15	13.17	12.57	13.54	13.93
	8H	4.74	5.71	5.17	6.10	6.50	12.15	13.11	12.58	13.50	13.91
	12H	4.95	5.87	5.38	6.26	6.69	12.15	13.07	12.58	13.45	13.88
4H	2H	3.64	4.74	4.04	5.10	5.48	11.52	12.63	11.93	12.98	13.36
	3H	4.91	5.81	5.32	6.22	6.62	12.10	13.01	12.52	13.41	13.82
	4H	5.60	6.41	6.04	6.83	7.28	12.15	12.96	12.58	13.38	13.82
	6H	6.23	6.93	6.69	7.38	7.84	12.20	12.90	12.67	13.35	13.81
	8H	6.48	7.14	6.95	7.58	8.05	12.22	12.87	12.69	13.32	13.79
	12H	6.76	7.33	7.24	7.82	8.29	12.25	12.83	12.74	13.32	13.79
8H	4H	6.03	6.69	6.50	7.13	7.61	12.10	12.75	12.57	13.20	13.67
	6H	6.91	7.44	7.41	7.94	8.42	12.19	12.73	12.70	13.23	13.71
	8H	7.32	7.80	7.84	8.32	8.81	12.26	12.74	12.78	13.25	13.74
	12H	7.79	8.22	8.31	8.71	9.28	12.36	12.78	12.87	13.28	13.85
12H	4H	6.08	6.66	6.56	7.14	7.61	12.07	12.65	12.56	13.13	13.61
	6H	7.02	7.50	7.54	8.02	8.51	12.17	12.65	12.69	13.17	13.66
	8H	7.54	7.97	8.06	8.47	9.04	12.28	12.71	12.80	13.20	13.77