

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: P1060409

Luminaire Tested: S124RDR-S350D850-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060409
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S350D850-X4F0-XX-UDD-BVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

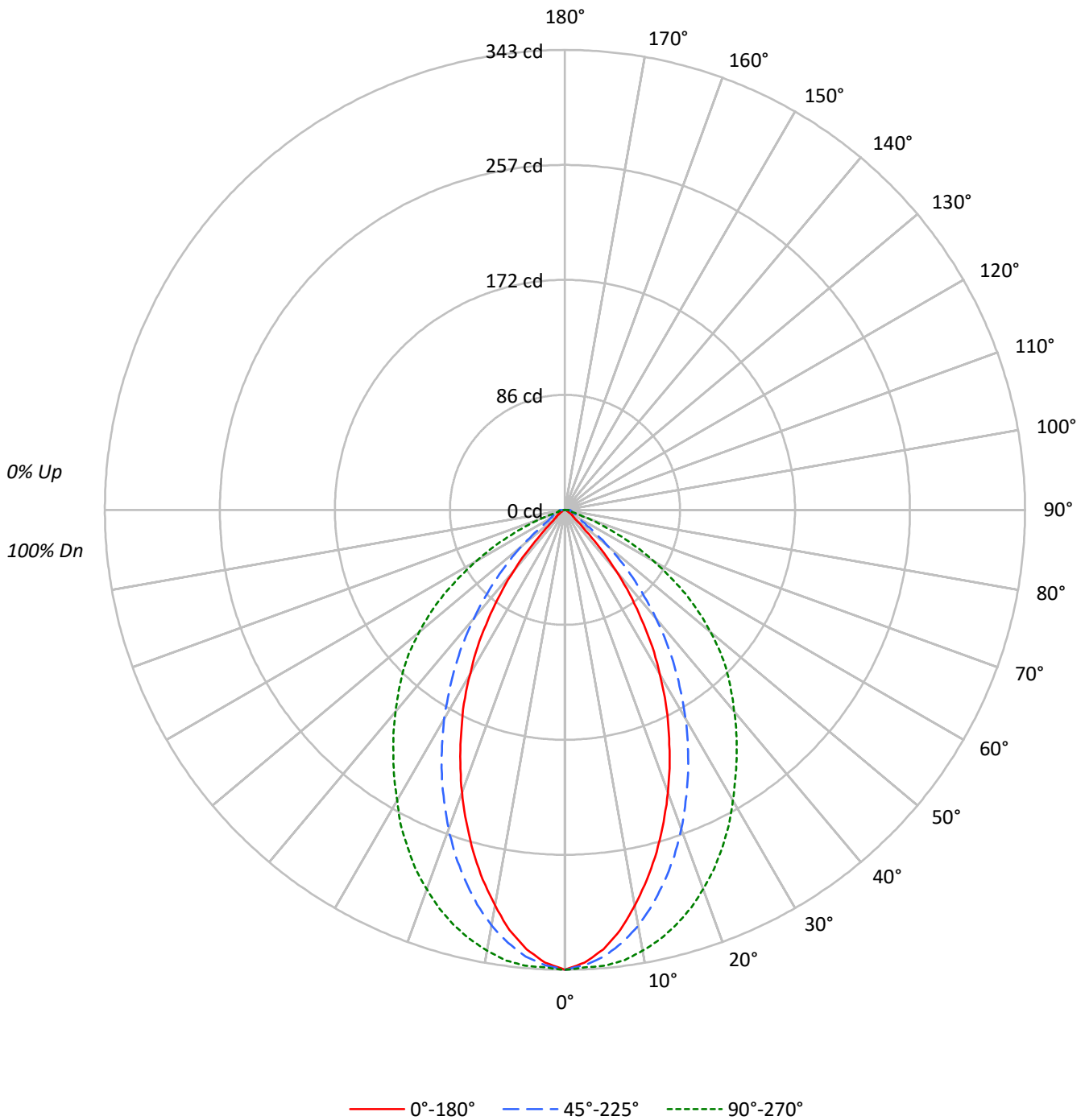
Lumens per Lamp: N/A
Luminaire Lumens: 430.5 lumens
Efficiency: N/A
Efficacy: 34.4 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
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	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	88	85	83	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73				
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65				
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59				
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50				
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46				
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2954	2954	2954
5°	2843	2891	2949
10°	2621	2753	2920
15°	2354	2556	2855
20°	2056	2323	2760
25°	1740	2064	2638
30°	1405	1789	2489
35°	1046	1495	2345
40°	664	1185	2207
45°	265	868	2080
50°	115	553	1898
55°	89	287	1657
60°	62	196	1314
65°	47	194	899
70°	45	171	413
75°	60	183	166
80°	89	203	179
85°	178	356	267

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2080 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.4	7.3
10°-20°	81.0	18.8
20°-30°	102.3	23.8
30°-40°	94.0	21.8
40°-50°	64.1	14.9
50°-60°	34.7	8.1
60°-70°	14.7	3.4
70°-80°	5.1	1.2
80°-90°	3.2	0.7
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°	214.7	49.9
0°-40°	308.6	71.7
0°-60°	407.4	94.6
0°-90°	430.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	430.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	343	343	343	343	343	
5°	329	334	334	337	341	30
15°	264	273	287	307	320	74
25°	183	195	217	251	278	84
35°	100	113	142	187	223	62
45°	22	35	71	126	171	20
55°	6	6	19	70	110	5
65°	2	3	10	22	44	2
75°	2	5	6	5	5	2
85°	2	4	4	4	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	343.0	343.0	343.0	343.0	343.0
2.5°	338.0	342.1	339.8	340.7	341.6
5°	328.9	333.9	334.4	337.1	341.2
7.5°	316.2	322.1	325.7	332.6	338.9
10°	299.8	307.1	314.8	325.7	333.9
12.5°	282.6	290.3	301.7	317.1	328.0
15°	264.0	272.6	286.7	307.1	320.3
17.5°	244.4	254.0	270.8	294.8	311.7
20°	224.4	234.9	253.5	280.8	301.2
22.5°	204.0	214.9	235.3	266.2	290.3
25°	183.1	194.9	217.2	250.8	277.6
27.5°	163.1	174.0	198.5	235.3	264.9
30°	141.3	153.6	179.9	219.4	250.3
32.5°	121.3	133.1	160.8	203.1	236.7
35°	99.5	112.7	142.2	186.7	223.1
37.5°	79.1	91.8	124.0	171.3	209.9
40°	59.1	72.2	105.4	155.8	196.3
42.5°	39.5	53.6	87.7	139.9	183.5
45°	21.8	35.0	71.3	126.3	170.8
47.5°	11.4	19.1	55.9	112.7	157.2
50°	8.6	10.4	41.3	97.7	141.7
52.5°	7.3	7.7	28.2	82.7	126.3
55°	5.9	6.4	19.1	69.5	110.4
57.5°	4.5	5.0	13.6	56.8	92.7
60°	3.6	4.1	11.4	43.6	76.3
62.5°	2.7	3.2	10.9	32.3	60.0
65°	2.3	2.7	9.5	21.8	44.1
67.5°	1.8	2.7	8.2	14.1	29.5
70°	1.8	3.6	6.8	9.1	16.4
72.5°	1.8	4.1	5.9	5.9	5.9
75°	1.8	5.0	5.5	5.0	5.0
77.5°	1.8	4.5	4.5	4.5	4.5
80°	1.8	4.1	4.1	4.1	3.6
82.5°	1.8	3.6	4.1	4.1	3.2
85°	1.8	3.6	3.6	3.6	2.7
87.5°	1.4	3.6	3.6	3.6	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)