

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: P1060817

Luminaire Tested: S124RDR-H350D850-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060817
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-H350D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

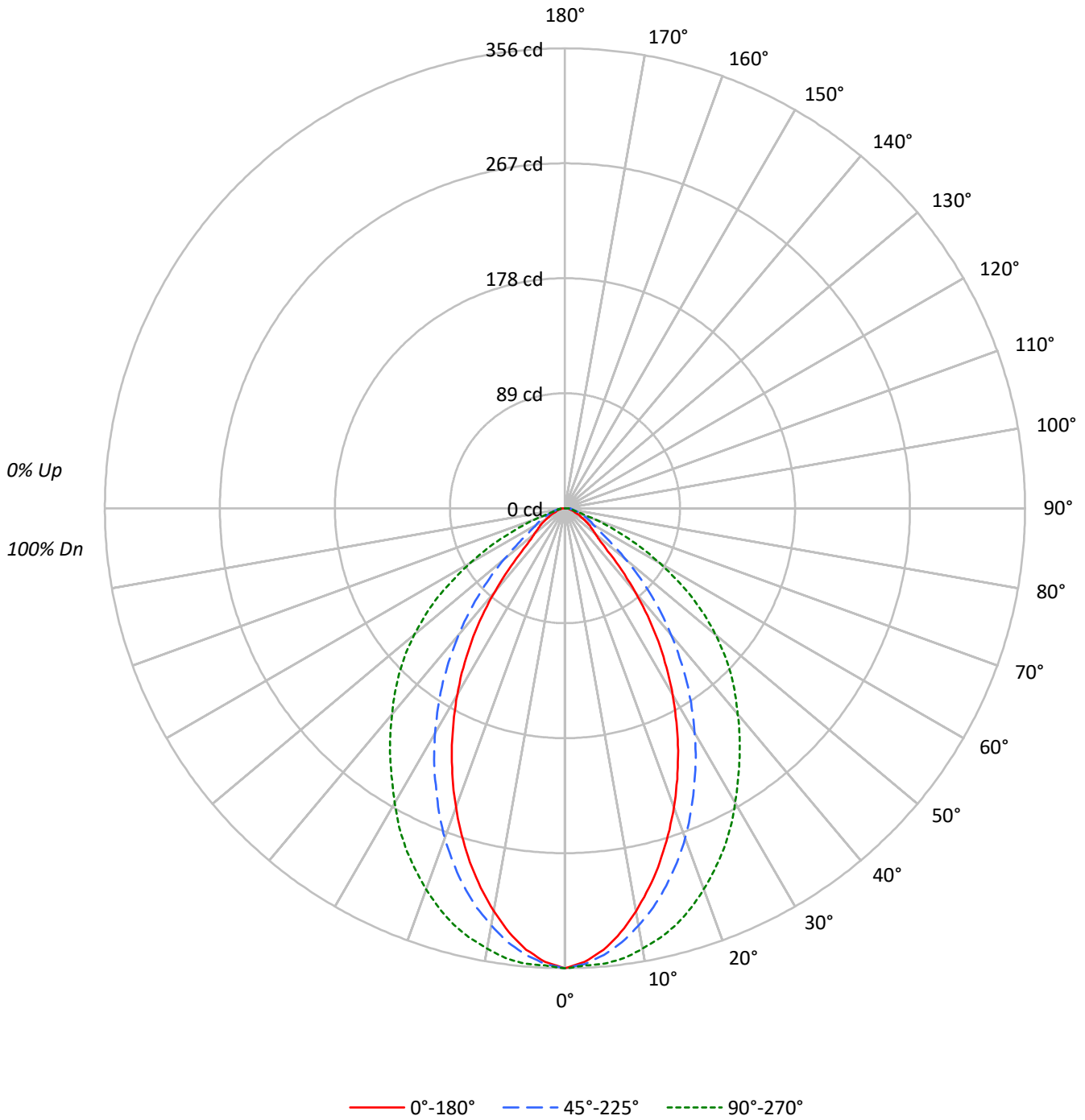
Lumens per Lamp: N/A
Luminaire Lumens: 500.8 lumens
Efficiency: N/A
Efficacy: 42.8 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	46	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°	3066	3066	3066
5°	2965	3000	3059
10°	2769	2868	3027
15°	2528	2699	2973
20°	2259	2492	2877
25°	1968	2247	2764
30°	1658	1996	2618
35°	1325	1729	2477
40°	952	1437	2338
45°	574	1131	2213
50°	413	820	2034
55°	347	551	1803
60°	281	437	1452
65°	222	397	1043
70°	194	330	559
75°	180	303	273
80°	179	312	248
85°	267	445	316

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2213 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.7	6.5
10°-20°	85.7	17.1
20°-30°	111.2	22.2
30°-40°	106.8	21.3
40°-50°	79.3	15.8
50°-60°	48.6	9.7
60°-70°	23.6	4.7
70°-80°	9.0	1.8
80°-90°	4.0	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°	229.5	45.8
0°-40°	336.4	67.2
0°-60°	464.2	92.7
0°-90°	500.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	500.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	356	356	356	356	356	
5°	343	348	347	350	354	32
15°	284	292	303	321	334	79
25°	207	218	236	267	291	95
35°	126	137	164	203	236	78
45°	47	59	93	142	182	39
55°	23	24	37	83	120	21
65°	11	12	20	31	51	11
75°	5	9	9	8	8	6
85°	3	4	4	4	3	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	356.1	356.1	356.1	356.1	356.1
2.5°	351.6	355.7	353.0	353.9	354.3
5°	343.0	348.0	347.1	350.2	353.9
7.5°	331.2	337.1	338.9	345.3	351.2
10°	316.7	324.0	328.0	338.5	346.2
12.5°	300.9	308.6	316.3	330.3	340.7
15°	283.6	291.8	302.7	320.8	333.5
17.5°	265.5	274.6	287.7	309.5	324.4
20°	246.5	256.0	271.9	295.9	314.0
22.5°	227.0	237.0	254.6	281.4	302.7
25°	207.1	217.5	236.5	266.9	290.9
27.5°	186.7	197.6	219.3	251.5	277.8
30°	166.7	177.2	200.7	235.6	263.3
32.5°	146.4	157.2	182.6	219.3	249.2
35°	126.0	137.3	164.5	203.4	235.6
37.5°	105.1	117.4	145.9	188.0	222.0
40°	84.7	96.5	127.8	172.2	208.0
42.5°	64.8	77.5	110.6	156.3	194.8
45°	47.1	58.9	92.9	141.8	181.7
47.5°	35.3	42.6	76.6	128.2	167.2
50°	30.8	32.2	61.2	113.3	151.8
52.5°	26.7	27.6	47.6	97.0	136.4
55°	23.1	24.0	36.7	82.9	120.1
57.5°	19.5	20.4	29.5	69.3	101.5
60°	16.3	17.2	25.4	55.3	84.3
62.5°	13.6	14.0	22.7	42.1	67.5
65°	10.9	11.8	19.5	30.8	51.2
67.5°	9.1	10.0	15.9	21.3	35.8
70°	7.7	10.0	13.1	15.0	22.2
72.5°	6.3	9.1	10.9	10.4	10.4
75°	5.4	8.6	9.1	8.2	8.2
77.5°	4.5	7.7	7.2	6.8	6.3
80°	3.6	6.3	6.3	5.4	5.0
82.5°	3.2	5.0	5.0	5.0	4.1
85°	2.7	4.5	4.5	4.1	3.2
87.5°	1.8	3.6	4.1	3.6	2.3
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	3.71	5.05	4.07	5.36	5.68	12.80	14.14	13.17	14.46	14.77
	3H	4.76	5.95	5.14	6.28	6.64	13.31	14.49	13.69	14.82	15.19
	4H	5.27	6.38	5.67	6.73	7.11	13.32	14.43	13.72	14.78	15.16
	6H	5.71	6.73	6.13	7.10	7.49	13.32	14.34	13.73	14.71	15.10
	8H	5.91	6.87	6.34	7.26	7.67	13.32	14.28	13.75	14.67	15.08
	12H	6.12	7.04	6.55	7.42	7.85	13.32	14.24	13.75	14.62	15.05
4H	2H	4.81	5.91	5.21	6.26	6.65	12.69	13.80	13.10	14.15	14.53
	3H	6.08	6.99	6.49	7.39	7.79	13.27	14.18	13.69	14.58	14.98
	4H	6.78	7.59	7.22	8.01	8.45	13.32	14.13	13.76	14.55	14.99
	6H	7.40	8.10	7.87	8.55	9.02	13.37	14.07	13.83	14.52	14.98
	8H	7.65	8.30	8.12	8.75	9.22	13.39	14.04	13.86	14.49	14.96
	12H	7.93	8.50	8.41	8.99	9.46	13.42	14.00	13.91	14.48	14.96
8H	4H	7.21	7.86	7.67	8.31	8.78	13.27	13.92	13.74	14.37	14.84
	6H	8.07	8.61	8.58	9.11	9.59	13.36	13.90	13.86	14.39	14.87
	8H	8.48	8.96	9.00	9.48	9.97	13.42	13.90	13.94	14.42	14.91
	12H	8.96	9.38	9.47	9.88	10.45	13.52	13.95	14.04	14.44	15.02
12H	4H	7.25	7.83	7.73	8.31	8.78	13.24	13.82	13.73	14.30	14.78
	6H	8.19	8.67	8.71	9.18	9.67	13.34	13.82	13.86	14.34	14.83
	8H	8.71	9.13	9.22	9.63	10.20	13.45	13.87	13.96	14.37	14.94