

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



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060400

Luminaire Tested: S124RDRP-S350D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060400
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: S124RDRP-S350D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

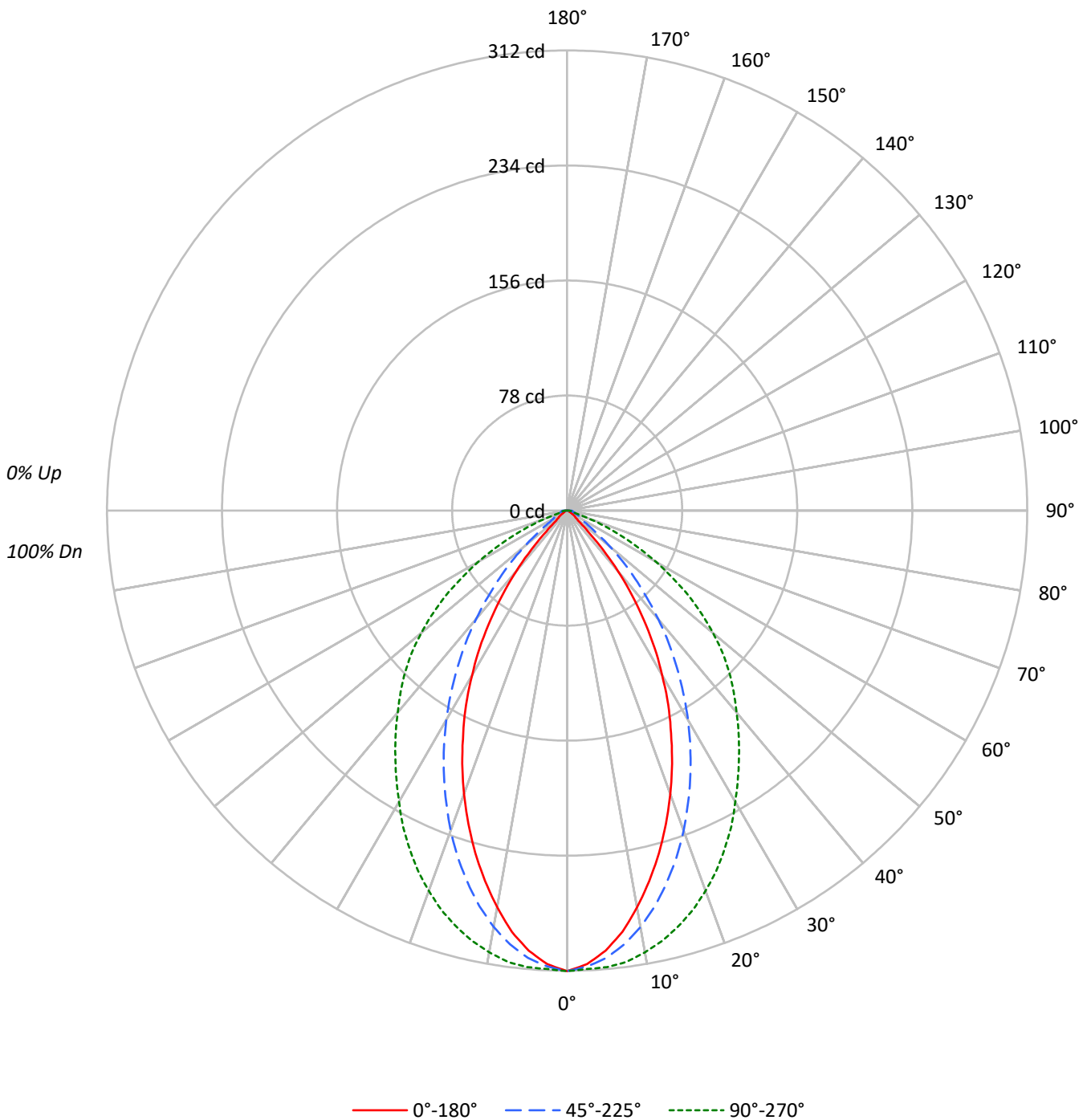
Lumens per Lamp: N/A
Luminaire Lumens: 392.0 lumens
Efficiency: N/A
Efficacy: 31.4 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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	87	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°	2689	2689	2689
5°	2589	2632	2686
10°	2387	2507	2659
15°	2143	2327	2600
20°	1873	2115	2514
25°	1584	1878	2402
30°	1280	1629	2266
35°	952	1361	2135
40°	605	1079	2009
45°	242	792	1895
50°	106	504	1729
55°	81	261	1509
60°	57	177	1197
65°	43	177	817
70°	43	156	375
75°	57	166	153
80°	84	183	164
85°	168	326	247

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1895 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.6	7.3
10°-20°	73.8	18.8
20°-30°	93.1	23.8
30°-40°	85.6	21.8
40°-50°	58.3	14.9
50°-60°	31.6	8.1
60°-70°	13.4	3.4
70°-80°	4.6	1.2
80°-90°	2.9	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°	195.5	49.9
0°-40°	281.0	71.7
0°-60°	371.0	94.6
0°-90°	392.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	392.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	312	312	312	312	312	
5°	300	304	304	307	311	28
15°	240	248	261	280	292	67
25°	167	178	198	228	253	76
35°	91	103	130	170	203	56
45°	20	32	65	115	156	18
55°	5	6	17	63	100	5
65°	2	2	9	20	40	2
75°	2	5	5	5	5	2
85°	2	3	3	3	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	312.3	312.3	312.3	312.3	312.3
2.5°	307.8	311.5	309.4	310.3	311.1
5°	299.5	304.1	304.5	307.0	310.7
7.5°	287.9	293.3	296.6	302.8	308.6
10°	273.0	279.7	286.7	296.6	304.1
12.5°	257.3	264.4	274.7	288.8	298.7
15°	240.4	248.2	261.0	279.7	291.7
17.5°	222.6	231.3	246.6	268.5	283.8
20°	204.4	213.9	230.8	255.7	274.3
22.5°	185.8	195.7	214.3	242.4	264.4
25°	166.7	177.5	197.7	228.4	252.8
27.5°	148.5	158.4	180.8	214.3	241.2
30°	128.7	139.8	163.8	199.8	227.9
32.5°	110.5	121.2	146.5	184.9	215.5
35°	90.6	102.6	129.5	170.0	203.1
37.5°	72.0	83.6	112.9	156.0	191.1
40°	53.8	65.8	96.0	141.9	178.7
42.5°	36.0	48.8	79.8	127.4	167.1
45°	19.9	31.9	65.0	115.0	155.6
47.5°	10.3	17.4	50.9	102.6	143.1
50°	7.9	9.5	37.6	88.9	129.1
52.5°	6.6	7.0	25.6	75.3	115.0
55°	5.4	5.8	17.4	63.3	100.5
57.5°	4.1	4.6	12.4	51.7	84.4
60°	3.3	3.7	10.3	39.7	69.5
62.5°	2.5	2.9	9.9	29.4	54.6
65°	2.1	2.5	8.7	19.9	40.1
67.5°	1.7	2.5	7.4	12.8	26.9
70°	1.7	3.3	6.2	8.3	14.9
72.5°	1.7	3.7	5.4	5.4	5.4
75°	1.7	4.6	5.0	4.6	4.6
77.5°	1.7	4.1	4.1	4.1	4.1
80°	1.7	3.7	3.7	3.7	3.3
82.5°	1.7	3.3	3.7	3.7	2.9
85°	1.7	3.3	3.3	3.3	2.5
87.5°	1.2	3.3	3.3	3.3	1.7
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	0.00	0.00	0.00	0.00	0.00	11.88	13.15	12.24	13.47	13.78
	3H	0.00	0.00	0.00	0.00	0.00	12.23	13.36	12.61	13.69	14.06
	4H	0.00	0.00	0.00	0.00	0.00	12.20	13.25	12.61	13.60	13.99
	6H	0.00	0.00	0.00	0.00	0.00	12.18	13.14	12.59	13.51	13.90
	8H	0.00	0.00	0.00	0.21	0.62	12.16	13.08	12.60	13.47	13.87
	12H	0.00	0.59	0.16	0.98	1.41	12.16	13.03	12.60	13.42	13.85
4H	2H	0.00	0.00	0.00	0.00	0.00	11.68	12.73	12.08	13.08	13.47
	3H	0.00	0.00	0.00	0.28	0.68	12.08	12.93	12.49	13.34	13.74
	4H	0.49	1.25	0.92	1.67	2.12	12.06	12.82	12.49	13.24	13.69
	6H	1.73	2.38	2.19	2.83	3.30	12.08	12.73	12.54	13.18	13.65
	8H	2.30	2.92	2.77	3.36	3.84	12.08	12.70	12.55	13.15	13.62
	12H	2.99	3.53	3.47	4.01	4.49	12.12	12.66	12.61	13.15	13.62
8H	4H	1.55	2.16	2.02	2.61	3.08	11.96	12.57	12.43	13.02	13.49
	6H	3.15	3.65	3.65	4.15	4.63	12.01	12.51	12.51	13.01	13.49
	8H	3.98	4.43	4.50	4.95	5.44	12.06	12.51	12.59	13.03	13.52
	12H	4.96	5.36	5.47	5.85	6.42	12.18	12.58	12.70	13.07	13.65
12H	4H	1.73	2.28	2.22	2.76	3.24	11.92	12.46	12.41	12.95	13.42
	6H	3.49	3.94	4.01	4.45	4.95	11.97	12.43	12.50	12.94	13.43
	8H	4.51	4.91	5.02	5.40	5.97	12.08	12.48	12.59	12.97	13.54