

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: P1060402

Luminaire Tested: S124RDRP-S350D840-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060402
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S350D840-X4F0-XX-UDD-SVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

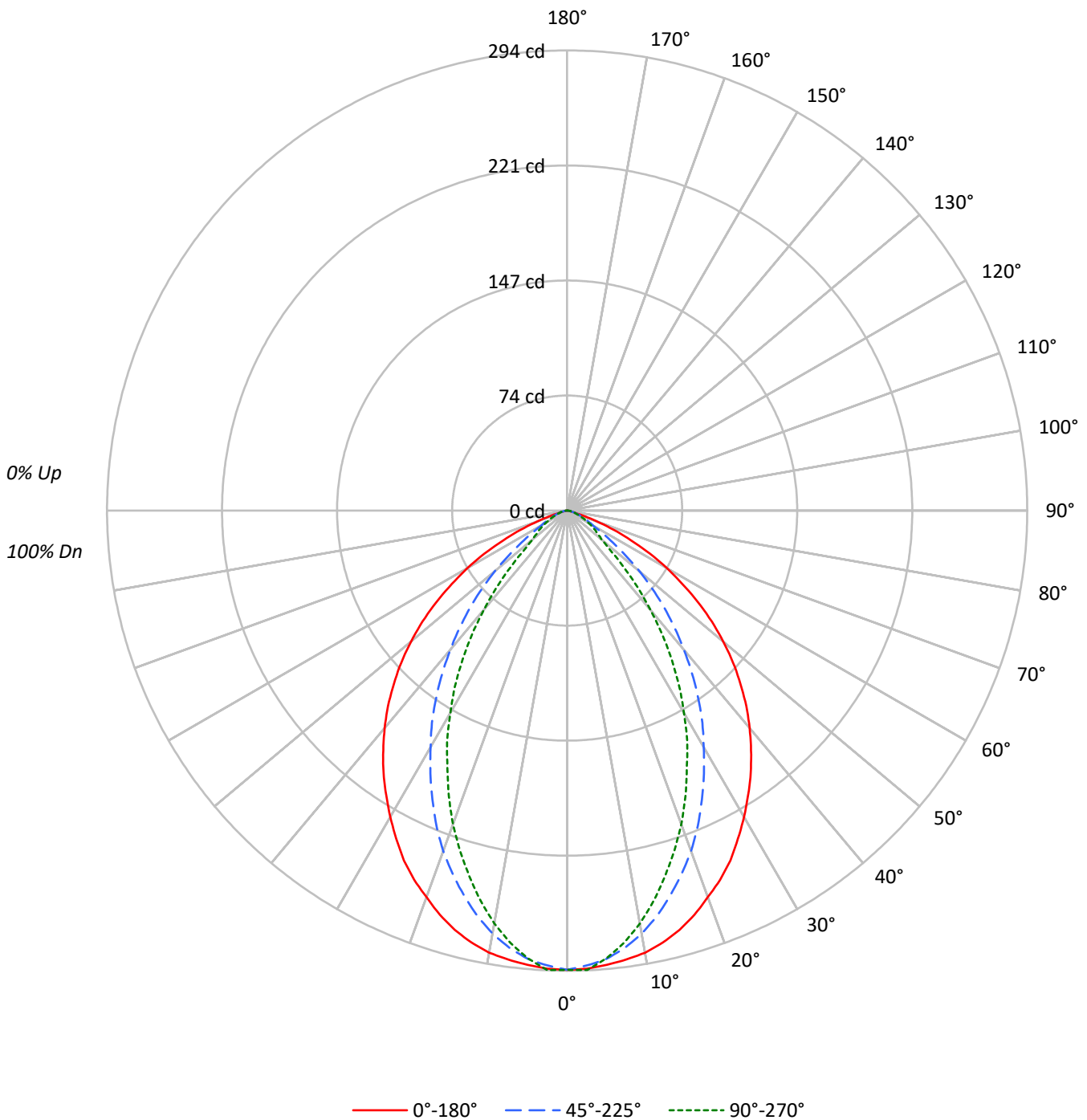
Lumens per Lamp: N/A
Luminaire Lumens: 432.6 lumens
Efficiency: N/A
Efficacy: 34.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (A_{in}): 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	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63
5	84	74	66	61	82	73	66	60	71	65	60	69	64	59	67	62	59	57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2527	2527	2527
5°	2518	2486	2483
10°	2508	2399	2342
15°	2472	2270	2155
20°	2408	2120	1954
25°	2344	1935	1720
30°	2247	1734	1484
35°	2151	1534	1225
40°	2039	1305	929
45°	1907	1067	624
50°	1744	808	387
55°	1533	533	329
60°	1268	327	270
65°	917	253	218
70°	499	186	166
75°	110	136	150
80°	84	104	124
85°	79	79	119

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1907 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.2	6.3
10°-20°	72.2	16.7
20°-30°	95.6	22.1
30°-40°	94.9	21.9
40°-50°	73.1	16.9
50°-60°	43.5	10.1
60°-70°	19.8	4.6
70°-80°	5.1	1.2
80°-90°	1.1	0.3
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°	195.0	45.1
0°-40°	290.0	67.0
0°-60°	406.5	94.0
0°-90°	432.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	432.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	293	293	293	293	293	
5°	291	292	288	288	287	28
15°	277	270	255	246	242	78
25°	247	229	204	187	181	113
35°	205	179	146	124	116	128
45°	157	126	88	61	51	121
55°	102	73	36	22	22	91
65°	45	27	12	11	11	45
75°	3	4	4	4	4	7
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	293.4	293.4	293.4	293.4	293.4
2.5°	293.0	293.4	290.9	293.0	293.8
5°	291.3	291.8	287.6	287.6	287.2
7.5°	289.3	288.4	281.8	279.4	278.5
10°	286.8	283.9	274.4	269.4	267.8
12.5°	282.7	278.1	265.3	258.3	255.4
15°	277.3	270.3	254.6	245.9	241.7
17.5°	270.7	262.0	243.4	232.2	227.7
20°	262.8	251.3	231.4	217.4	213.2
22.5°	255.4	240.9	218.2	202.1	197.5
25°	246.7	228.9	203.7	186.8	181.0
27.5°	236.4	217.4	189.3	171.9	166.1
30°	226.0	205.0	174.4	156.2	149.2
32.5°	215.3	192.2	160.8	140.1	133.5
35°	204.6	178.9	145.9	123.6	116.5
37.5°	193.0	165.7	131.0	107.9	100.0
40°	181.4	152.9	116.1	92.6	82.6
42.5°	169.4	139.7	101.7	76.9	66.9
45°	156.6	126.0	87.6	61.2	51.2
47.5°	143.8	113.2	73.6	45.9	36.8
50°	130.2	99.6	60.3	33.5	28.9
52.5°	116.5	86.4	47.1	26.0	24.8
55°	102.1	72.7	35.5	22.3	21.9
57.5°	87.2	60.3	25.6	19.4	18.6
60°	73.6	48.8	19.0	16.5	15.7
62.5°	59.5	36.8	15.7	13.6	12.8
65°	45.0	26.9	12.4	10.7	10.7
67.5°	32.6	18.2	9.9	8.7	8.3
70°	19.8	11.2	7.4	7.0	6.6
72.5°	9.9	6.6	5.8	5.4	5.4
75°	3.3	4.1	4.1	4.5	4.5
77.5°	2.5	2.9	2.9	3.3	3.3
80°	1.7	2.1	2.1	2.5	2.5
82.5°	1.2	1.2	1.7	1.7	2.1
85°	0.8	0.8	0.8	1.2	1.2
87.5°	0.4	0.4	0.4	0.8	0.8
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	12.34	13.67	12.70	13.98	14.30	3.88	5.22	4.25	5.53	5.84
	3H	12.85	14.03	13.23	14.36	14.72	4.70	5.88	5.08	6.21	6.58
	4H	12.81	13.91	13.21	14.26	14.64	4.98	6.08	5.38	6.43	6.81
	6H	12.75	13.76	13.16	14.13	14.52	5.15	6.16	5.57	6.53	6.93
	8H	12.71	13.66	13.14	14.05	14.46	5.22	6.18	5.65	6.57	6.97
	12H	12.67	13.58	13.10	13.97	14.40	5.27	6.18	5.70	6.56	6.99
4H	2H	12.18	13.28	12.58	13.63	14.01	4.32	5.42	4.73	5.77	6.16
	3H	12.73	13.63	13.15	14.03	14.43	5.29	6.18	5.70	6.59	6.99
	4H	12.70	13.50	13.14	13.92	14.36	5.65	6.45	6.08	6.87	7.31
	6H	12.65	13.34	13.11	13.78	14.25	5.90	6.59	6.37	7.04	7.50
	8H	12.60	13.24	13.07	13.69	14.16	6.00	6.64	6.47	7.08	7.55
	12H	12.56	13.13	13.05	13.61	14.09	6.07	6.63	6.56	7.12	7.59
8H	4H	12.59	13.23	13.06	13.68	14.15	5.74	6.38	6.21	6.82	7.30
	6H	12.53	13.05	13.03	13.55	14.03	6.05	6.58	6.56	7.07	7.55
	8H	12.48	12.95	13.00	13.47	13.96	6.19	6.66	6.71	7.18	7.67
	12H	12.45	12.86	12.97	13.36	13.93	6.32	6.74	6.84	7.23	7.80
12H	4H	12.55	13.11	13.03	13.60	14.07	5.71	6.28	6.20	6.76	7.23
	6H	12.48	12.94	13.00	13.46	13.95	6.03	6.50	6.56	7.02	7.51
	8H	12.45	12.86	12.96	13.36	13.93	6.21	6.63	6.73	7.12	7.69