

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: P1060410

Luminaire Tested: S124RDRP-S350D850-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060410
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S350D850-X4F0-XX-UDD-BVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

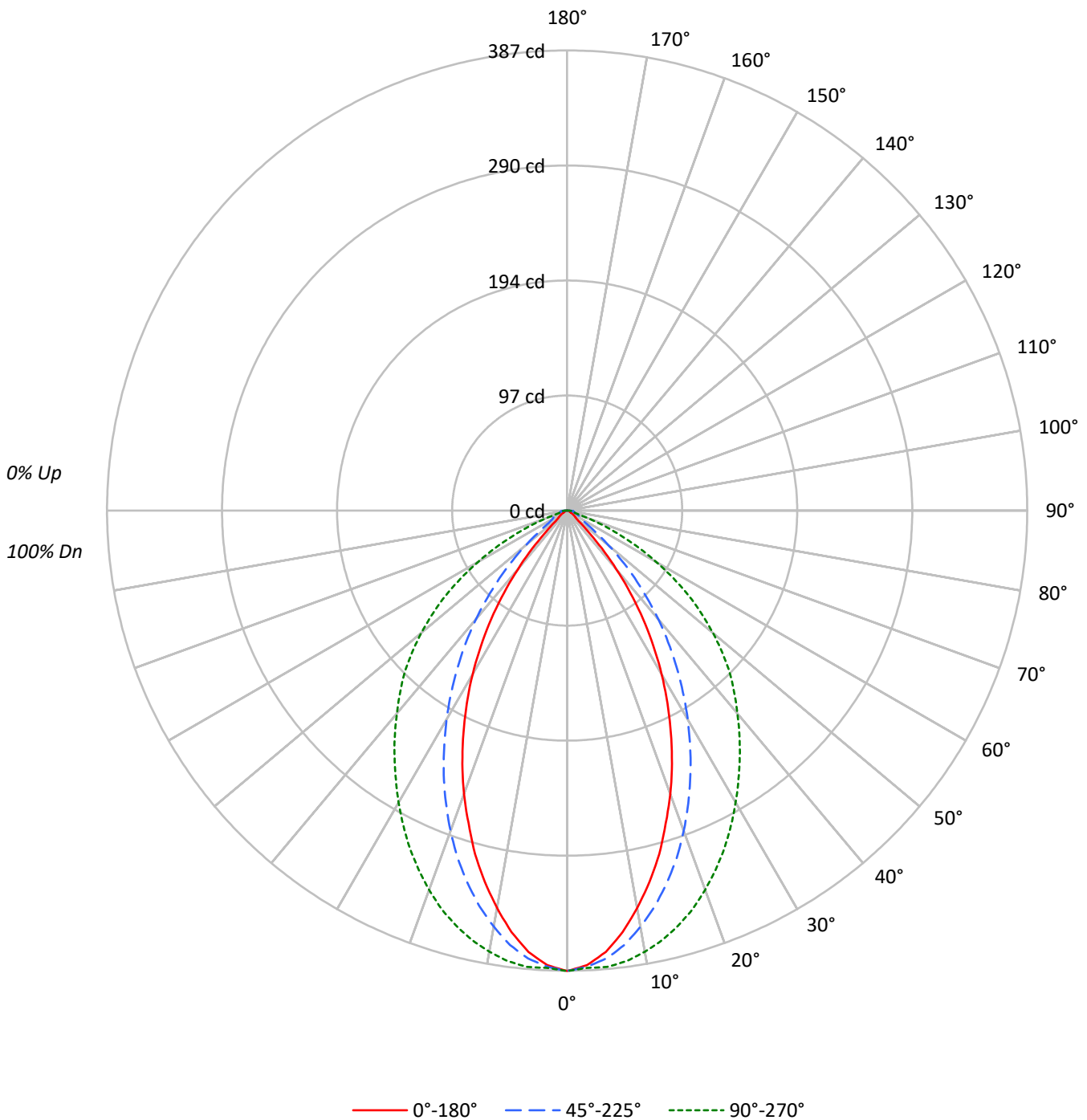
Lumens per Lamp: N/A
Luminaire Lumens: 488.0 lumens
Efficiency: N/A
Efficacy: 39.0 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.96
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3334	3334	3334
5°	3221	3268	3331
10°	2968	3107	3294
15°	2666	2888	3221
20°	2324	2627	3110
25°	1960	2332	2975
30°	1581	2016	2819
35°	1170	1686	2661
40°	725	1343	2503
45°	287	979	2358
50°	127	615	2143
55°	102	321	1877
60°	71	243	1495
65°	47	240	1027
70°	45	217	481
75°	60	213	213
80°	89	248	248
85°	178	494	356

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2358 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.5	7.3
10°-20°	91.7	18.8
20°-30°	115.7	23.7
30°-40°	106.2	21.8
40°-50°	72.3	14.8
50°-60°	39.4	8.1
60°-70°	17.0	3.5
70°-80°	6.2	1.3
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°	242.9	49.8
0°-40°	349.0	71.5
0°-60°	460.7	94.4
0°-90°	488.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	488.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	387	387	387	387	387	
5°	373	378	378	382	385	35
15°	299	310	324	347	361	83
25°	206	221	245	284	313	94
35°	111	128	160	211	253	69
45°	24	40	80	143	194	22
55°	7	7	21	79	125	6
65°	2	3	12	24	50	3
75°	2	6	6	6	6	2
85°	2	4	5	5	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	387.2	387.2	387.2	387.2	387.2
2.5°	382.6	387.2	384.0	384.9	384.9
5°	372.6	377.6	378.1	382.2	385.3
7.5°	357.6	364.9	368.5	376.7	382.2
10°	339.4	348.1	355.3	369.4	376.7
12.5°	319.9	329.9	340.8	359.4	369.9
15°	299.0	309.5	324.0	347.2	361.3
17.5°	275.8	288.5	306.3	334.0	351.3
20°	253.6	266.3	286.7	318.1	339.4
22.5°	230.4	243.6	266.3	301.3	326.7
25°	206.3	220.8	245.4	284.5	313.1
27.5°	182.7	198.1	224.0	266.7	298.5
30°	159.0	174.5	202.7	248.6	283.5
32.5°	135.0	150.9	181.3	229.5	268.1
35°	111.3	127.7	160.4	211.3	253.1
37.5°	87.2	104.5	139.5	193.6	238.1
40°	64.5	81.8	119.5	175.9	222.7
42.5°	43.2	60.4	99.1	158.6	208.1
45°	23.6	39.5	80.4	142.7	193.6
47.5°	12.7	21.8	62.3	127.2	177.2
50°	9.5	11.8	45.9	110.9	160.0
52.5°	8.2	9.1	31.8	93.6	142.7
55°	6.8	7.3	21.4	78.6	125.0
57.5°	5.5	5.9	15.9	63.6	105.9
60°	4.1	5.0	14.1	49.1	86.8
62.5°	3.2	4.1	13.2	35.9	68.6
65°	2.3	3.2	11.8	24.5	50.4
67.5°	2.3	3.6	10.0	15.9	34.1
70°	1.8	5.0	8.6	10.5	19.1
72.5°	1.8	5.5	7.3	7.3	7.3
75°	1.8	5.9	6.4	6.4	6.4
77.5°	1.8	5.5	5.9	5.5	5.5
80°	1.8	5.0	5.0	5.0	5.0
82.5°	1.8	4.5	5.0	5.0	4.1
85°	1.8	4.1	5.0	5.0	3.6
87.5°	1.4	4.1	4.5	4.5	2.7
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	12.59	13.87	12.96	14.18	14.50
	3H	0.00	0.00	0.00	0.00	0.00	12.97	14.10	13.35	14.43	14.79
	4H	0.00	0.00	0.00	0.00	0.00	12.95	14.00	13.35	14.35	14.73
	6H	0.00	0.01	0.00	0.38	0.77	12.94	13.90	13.35	14.27	14.67
	8H	0.00	0.54	0.05	0.93	1.33	12.94	13.85	13.37	14.24	14.65
	12H	0.29	1.16	0.72	1.54	1.97	12.95	13.82	13.38	14.21	14.64
4H	2H	0.00	0.00	0.00	0.24	0.62	12.40	13.45	12.81	13.81	14.19
	3H	0.42	1.28	0.83	1.68	2.09	12.82	13.68	13.24	14.09	14.49
	4H	1.71	2.48	2.15	2.90	3.34	12.82	13.59	13.26	14.01	14.45
	6H	2.84	3.51	3.31	3.95	4.42	12.86	13.53	13.33	13.97	14.44
	8H	3.35	3.96	3.82	4.41	4.88	12.89	13.51	13.36	13.96	14.43
	12H	3.89	4.44	4.38	4.92	5.39	12.96	13.50	13.44	13.98	14.46
8H	4H	2.80	3.42	3.28	3.87	4.34	12.73	13.35	13.20	13.80	14.27
	6H	4.35	4.85	4.85	5.35	5.83	12.81	13.32	13.32	13.81	14.30
	8H	5.14	5.60	5.67	6.11	6.61	12.90	13.35	13.42	13.87	14.36
	12H	5.97	6.37	6.49	6.87	7.44	13.06	13.47	13.58	13.96	14.53
12H	4H	2.99	3.54	3.48	4.02	4.50	12.70	13.24	13.18	13.73	14.20
	6H	4.70	5.16	5.23	5.67	6.17	12.79	13.24	13.31	13.76	14.25
	8H	5.70	6.10	6.22	6.60	7.17	12.92	13.32	13.44	13.82	14.39