

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: P1060390

Luminaire Tested: S124RDRP-S350D835-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060390
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S350D835-X4F0-XX-UDD-BVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

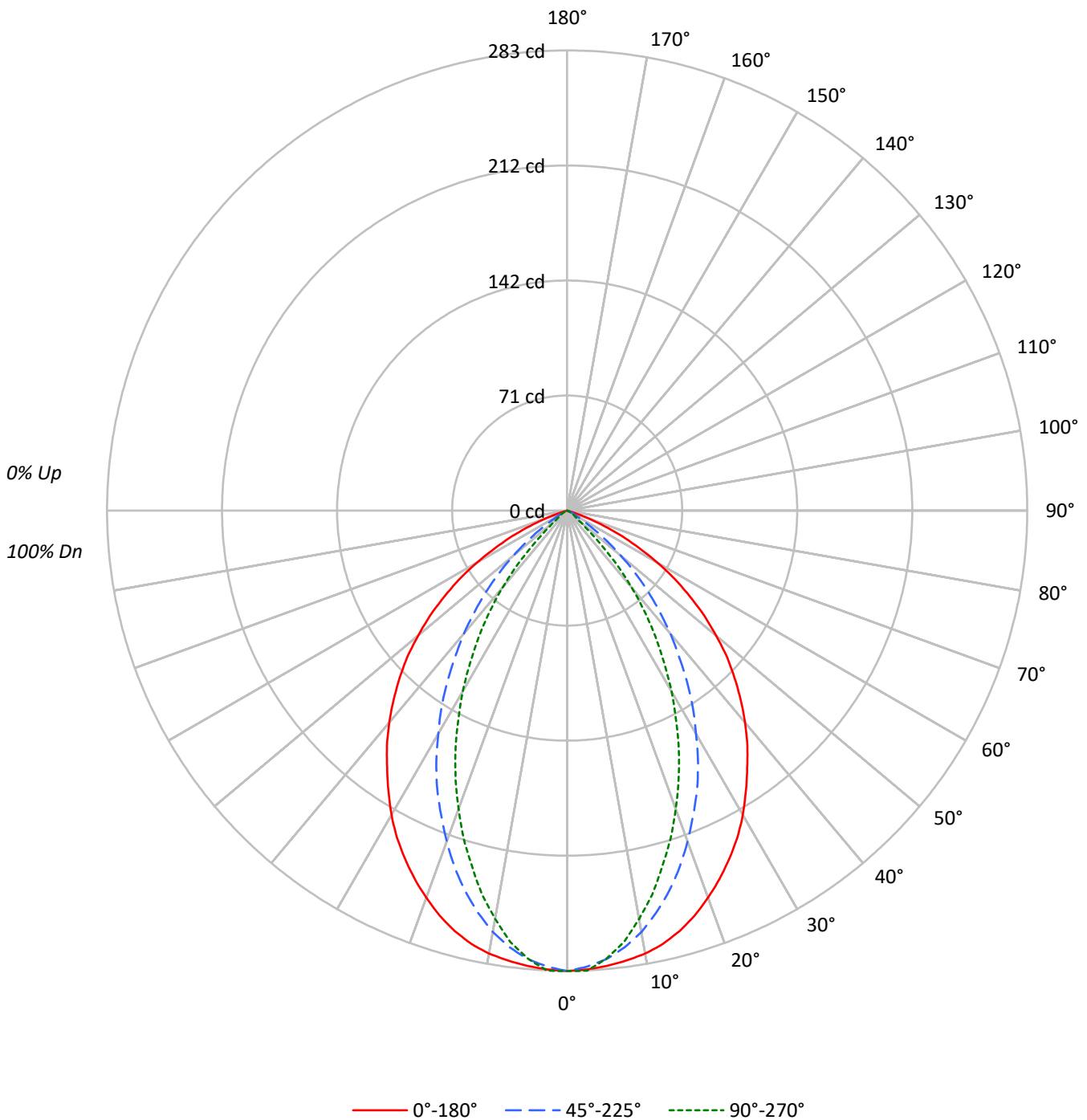
Lumens per Lamp: N/A
Luminaire Lumens: 369.7 lumens
Efficiency: N/A
Efficacy: 29.6 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	45	66	56	49	44	54	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2439	2439	2439
5°	2430	2394	2391
10°	2419	2301	2229
15°	2386	2160	2017
20°	2321	1984	1789
25°	2243	1797	1544
30°	2149	1575	1278
35°	2030	1351	993
40°	1913	1108	695
45°	1774	852	343
50°	1601	576	115
55°	1383	294	80
60°	1106	105	57
65°	758	59	24
70°	340	30	20
75°	0	13	13
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1774 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.2	7.1
10°-20°	68.5	18.5
20°-30°	88.7	24.0
30°-40°	84.3	22.8
40°-50°	59.7	16.1
50°-60°	30.6	8.3
60°-70°	10.7	2.9
70°-80°	0.9	0.2
80°-90°	0.0	0.0
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°	183.4	49.6
0°-40°	267.8	72.4
0°-60°	358.1	96.9
0°-90°	369.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	369.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	283	283	283	283	283	
5°	281	282	277	277	277	27
15°	268	259	242	231	226	75
25°	236	218	189	169	162	109
35°	193	165	128	104	94	121
45°	146	112	70	40	28	112
55°	92	61	20	6	5	82
65°	37	18	3	2	1	37
75°	0	0	0	0	0	3
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	283.2	283.2	283.2	283.2	283.2
2.5°	282.4	283.2	280.7	282.8	283.2
5°	281.1	281.5	277.0	277.0	276.6
7.5°	279.1	278.3	270.9	268.0	267.6
10°	276.6	273.8	263.1	257.0	254.9
12.5°	272.9	267.6	253.3	244.3	241.8
15°	267.6	259.4	242.3	230.8	226.3
17.5°	261.1	250.4	230.0	216.1	211.6
20°	253.3	239.8	216.5	200.9	195.2
22.5°	245.1	229.6	202.6	185.0	179.2
25°	236.1	217.7	189.1	169.0	162.5
27.5°	226.7	205.0	174.3	153.5	144.9
30°	216.1	192.3	158.4	136.7	128.5
32.5°	204.6	178.4	144.0	120.7	110.9
35°	193.1	164.9	128.5	103.5	94.5
37.5°	182.1	152.2	112.9	86.8	78.2
40°	170.2	138.3	98.6	71.6	61.8
42.5°	158.0	124.8	83.9	56.1	45.4
45°	145.7	112.1	70.0	40.1	28.2
47.5°	133.4	98.6	56.5	25.4	15.1
50°	119.5	85.5	43.0	13.5	8.6
52.5°	106.4	73.2	30.7	7.8	6.5
55°	92.1	60.6	19.6	5.7	5.3
57.5°	78.6	48.3	11.0	4.5	4.1
60°	64.2	37.2	6.1	3.7	3.3
62.5°	49.9	27.0	4.1	2.5	2.0
65°	37.2	18.0	2.9	1.6	1.2
67.5°	24.6	10.2	2.0	0.8	0.8
70°	13.5	4.9	1.2	0.8	0.8
72.5°	4.9	1.6	0.8	0.4	0.4
75°	0.0	0.4	0.4	0.4	0.4
77.5°	0.0	0.0	0.0	0.0	0.4
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	11.63	12.88	11.99	13.20	13.51	0.00	0.00	0.00	0.00	0.00
	3H	11.90	13.01	12.29	13.34	13.71	0.00	0.00	0.00	0.00	0.00
	4H	11.83	12.85	12.23	13.20	13.59	0.00	0.00	0.00	0.00	0.00
	6H	11.74	12.68	12.16	13.05	13.45	0.00	0.00	0.00	0.00	0.00
	8H	11.70	12.58	12.13	12.97	13.38	0.00	0.00	0.00	0.00	0.00
	12H	11.65	12.50	12.08	12.88	13.31	0.00	0.00	0.00	0.00	0.00
4H	2H	11.40	12.43	11.80	12.78	13.16	0.00	0.00	0.00	0.00	0.00
	3H	11.68	12.51	12.10	12.92	13.32	0.00	0.00	0.00	0.00	0.00
	4H	11.59	12.33	12.03	12.75	13.19	0.00	0.00	0.00	0.00	0.00
	6H	11.50	12.13	11.97	12.58	13.05	0.00	0.00	0.00	0.00	0.00
	8H	11.44	12.03	11.91	12.48	12.95	0.00	0.00	0.00	0.00	0.00
	12H	11.39	11.91	11.88	12.39	12.87	0.00	0.00	0.00	0.00	0.00
8H	4H	11.44	12.03	11.91	12.48	12.95	0.00	0.00	0.00	0.00	0.00
	6H	11.33	11.81	11.84	12.31	12.79	0.00	0.00	0.00	0.00	0.00
	8H	11.27	11.70	11.79	12.21	12.71	0.00	0.00	0.00	0.00	0.00
	12H	11.22	11.59	11.73	12.09	12.66	0.00	0.00	0.00	0.00	0.00
12H	4H	11.39	11.91	11.88	12.39	12.87	0.00	0.00	0.00	0.00	0.00
	6H	11.27	11.70	11.79	12.21	12.71	0.00	0.00	0.00	0.00	0.00
	8H	11.22	11.59	11.73	12.09	12.66	0.00	0.00	0.00	0.00	0.00