

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: P1060415

Luminaire Tested: S124RDRP-S350D850-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060415
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S350D850-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

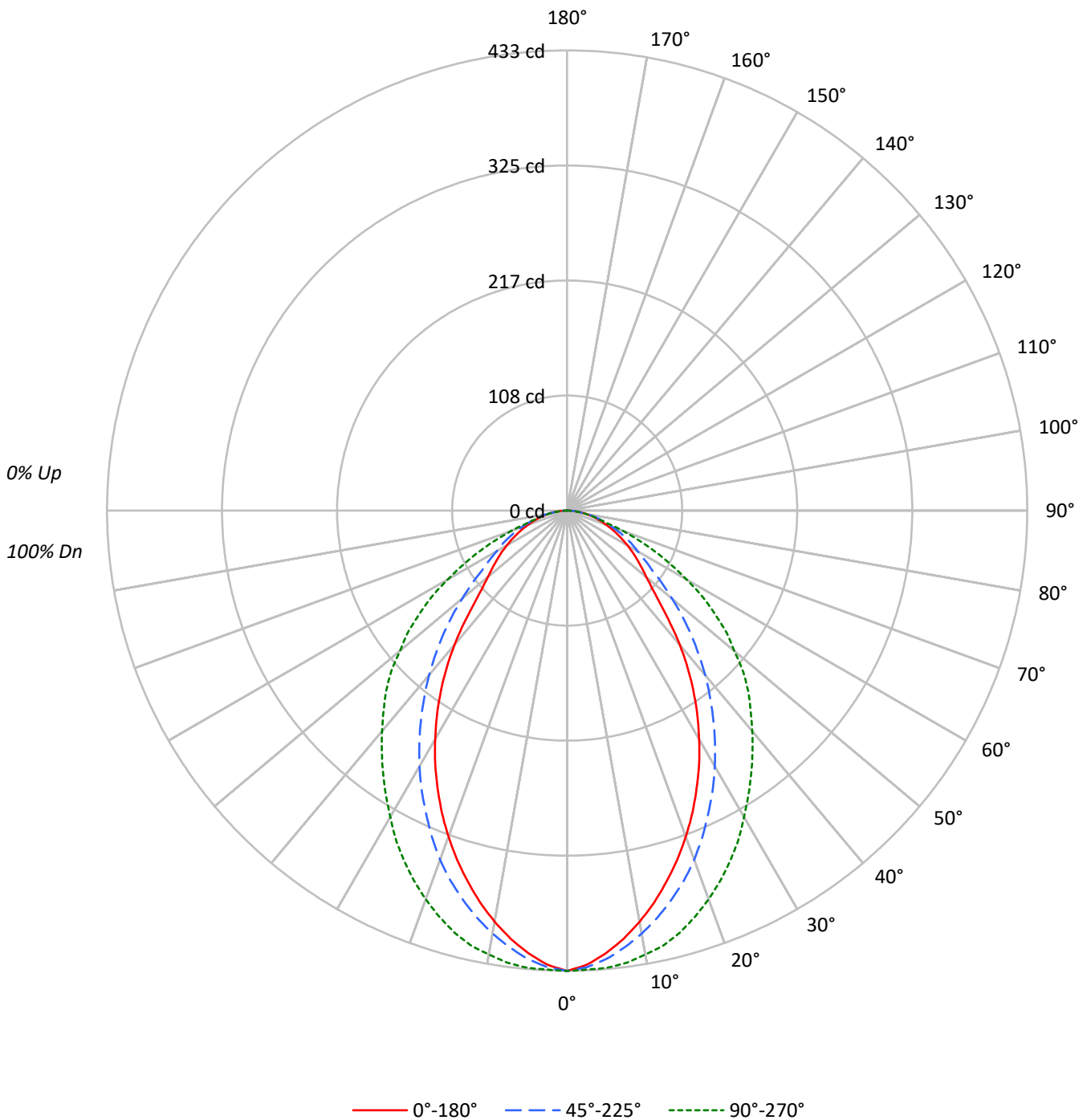
Lumens per Lamp: N/A
Luminaire Lumens: 788.6 lumens
Efficiency: N/A
Efficacy: 63.1 lumens/watt
Spacing Criteria (0/90/45): 0.92 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3730	3730	3730
5°	3615	3662	3732
10°	3435	3533	3708
15°	3222	3380	3663
20°	2992	3204	3566
25°	2739	2985	3452
30°	2470	2763	3309
35°	2177	2520	3175
40°	1853	2272	3047
45°	1504	2007	2936
50°	1302	1728	2749
55°	1207	1465	2549
60°	1126	1321	2237
65°	1055	1239	1860
70°	982	1143	1407
75°	938	1058	1011
80°	878	967	858
85°	810	899	672

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2936 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.0	5.1
10°-20°	107.5	13.6
20°-30°	146.8	18.6
30°-40°	153.8	19.5
40°-50°	133.1	16.9
50°-60°	100.0	12.7
60°-70°	64.5	8.2
70°-80°	33.1	4.2
80°-90°	9.9	1.3
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°	294.3	37.3
0°-40°	448.1	56.8
0°-60°	681.2	86.4
0°-90°	788.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	788.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	433	433	433	433	433	
5°	418	425	424	427	432	39
15°	361	370	379	396	411	101
25°	288	299	314	339	363	132
35°	207	219	240	272	302	129
45°	124	136	165	205	241	97
55°	80	83	98	139	170	72
65°	52	53	61	74	91	51
75°	28	31	32	31	30	30
85°	8	10	9	9	7	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	433.2	433.2	433.2	433.2	433.2
2.5°	427.7	433.2	430.0	430.9	432.3
5°	418.2	424.6	423.6	426.8	431.8
7.5°	406.4	413.2	414.6	421.8	429.1
10°	392.8	400.5	404.1	415.0	424.1
12.5°	377.8	386.0	392.3	405.9	419.1
15°	361.4	370.5	379.1	396.4	410.9
17.5°	344.6	353.7	365.1	384.1	400.5
20°	326.5	336.5	349.6	369.6	389.1
22.5°	307.9	318.3	332.4	354.2	376.9
25°	288.3	299.2	314.2	338.7	363.3
27.5°	268.8	279.7	296.5	322.4	349.2
30°	248.4	259.7	277.9	306.0	332.8
32.5°	227.9	240.2	258.8	288.8	317.4
35°	207.1	218.9	239.7	271.5	302.0
37.5°	186.2	198.4	220.7	254.7	286.5
40°	164.8	177.5	202.1	237.9	271.1
42.5°	143.5	157.1	183.0	220.7	255.6
45°	123.5	136.2	164.8	205.2	241.1
47.5°	108.5	117.1	146.7	190.3	224.8
50°	97.2	101.7	129.0	173.9	205.2
52.5°	88.5	91.7	112.6	156.2	189.3
55°	80.4	83.1	97.6	139.4	169.8
57.5°	73.1	74.5	86.3	123.1	151.2
60°	65.4	66.7	76.7	105.3	129.9
62.5°	58.6	59.5	69.0	88.5	110.3
65°	51.8	52.7	60.8	73.6	91.3
67.5°	45.4	46.8	53.1	59.9	72.7
70°	39.0	41.8	45.4	48.6	55.9
72.5°	33.6	36.3	38.1	39.0	39.5
75°	28.2	31.3	31.8	31.3	30.4
77.5°	22.7	25.4	25.4	24.5	23.6
80°	17.7	20.0	19.5	18.6	17.3
82.5°	13.2	14.5	14.1	13.2	11.8
85°	8.2	9.5	9.1	8.6	6.8
87.5°	4.1	5.4	5.0	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	11.01	12.49	11.37	12.81	13.12	14.78	16.27	15.15	16.58	16.89
	3H	12.66	13.99	13.04	14.32	14.68	15.90	17.22	16.27	17.55	17.92
	4H	13.33	14.58	13.73	14.93	15.31	16.18	17.43	16.59	17.78	18.16
	6H	13.85	15.00	14.26	15.36	15.75	16.38	17.53	16.79	17.90	18.29
	8H	14.03	15.12	14.45	15.51	15.91	16.44	17.53	16.86	17.92	18.32
	12H	14.15	15.20	14.58	15.58	16.01	16.46	17.51	16.89	17.89	18.32
4H	2H	11.79	13.03	12.19	13.38	13.76	14.94	16.19	15.34	16.53	16.91
	3H	13.65	14.68	14.06	15.08	15.49	16.25	17.28	16.66	17.68	18.09
	4H	14.46	15.39	14.89	15.80	16.24	16.66	17.59	17.09	18.00	18.44
	6H	15.11	15.91	15.56	16.36	16.82	16.97	17.78	17.43	18.23	18.69
	8H	15.33	16.09	15.80	16.53	17.00	17.07	17.82	17.53	18.27	18.73
	12H	15.51	16.18	15.99	16.66	17.13	17.13	17.80	17.61	18.28	18.75
8H	4H	14.81	15.56	15.27	16.01	16.47	16.79	17.55	17.26	17.99	18.46
	6H	15.60	16.22	16.10	16.72	17.19	17.20	17.83	17.70	18.32	18.80
	8H	15.92	16.48	16.44	16.99	17.48	17.35	17.91	17.87	18.42	18.91
	12H	16.19	16.68	16.70	17.17	17.74	17.48	17.97	17.99	18.47	19.03
12H	4H	14.84	15.51	15.32	15.99	16.46	16.80	17.47	17.28	17.95	18.42
	6H	15.66	16.22	16.18	16.73	17.22	17.23	17.79	17.74	18.30	18.78
	8H	16.05	16.54	16.56	17.04	17.60	17.43	17.92	17.94	18.41	18.98