

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: P1060386

Luminaire Tested: S124RDRP-S350D830-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060386  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S350D830-X4F0-XX-UDD-SVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

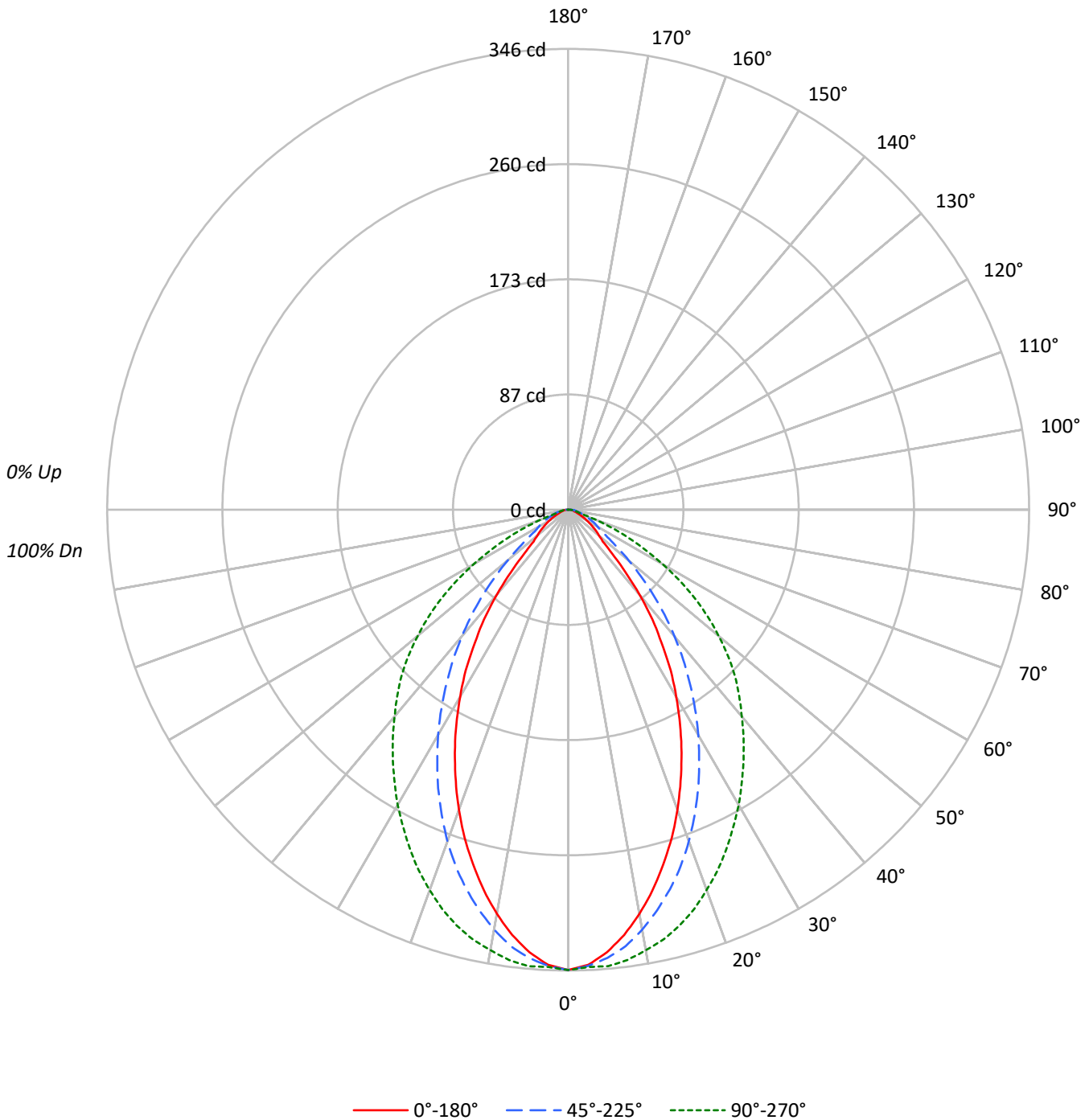
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 489.1 lumens  
Efficiency: N/A  
Efficacy: 39.1 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01  
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<sub>in</sub>): 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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2976	2976	2976
5°	2884	2920	2974
10°	2694	2799	2937
15°	2458	2630	2881
20°	2197	2427	2785
25°	1912	2194	2671
30°	1613	1943	2545
35°	1282	1672	2412
40°	933	1393	2279
45°	564	1101	2158
50°	403	797	1976
55°	342	539	1745
60°	279	439	1411
65°	220	393	1015
70°	184	330	534
75°	166	309	269
80°	174	307	268
85°	227	454	306

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2158 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.8	6.5
10°-20°	83.4	17.0
20°-30°	108.1	22.1
30°-40°	104.1	21.3
40°-50°	77.4	15.8
50°-60°	47.6	9.7
60°-70°	23.4	4.8
70°-80°	9.1	1.9
80°-90°	4.2	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°	223.3	45.7
0°-40°	327.4	66.9
0°-60°	452.5	92.5
0°-90°	489.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	489.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	346	346	346	346	346	
5°	334	339	338	341	344	31
15°	276	285	295	313	323	77
25°	201	212	231	260	281	92
35°	122	134	159	199	229	76
45°	46	58	90	139	177	38
55°	23	24	36	82	116	20
65°	11	12	19	31	50	11
75°	5	9	9	8	8	5
85°	2	4	5	5	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	345.6	345.6	345.6	345.6	345.6
2.5°	342.1	346.0	342.9	343.3	343.6
5°	333.6	338.6	337.8	340.9	344.0
7.5°	322.0	327.8	330.5	336.7	340.9
10°	308.1	314.7	320.1	330.1	335.9
12.5°	292.7	300.4	308.1	321.6	330.5
15°	275.7	284.6	295.0	312.8	323.2
17.5°	258.3	267.2	280.7	301.2	314.3
20°	239.8	249.4	264.9	287.7	303.9
22.5°	220.5	230.9	247.9	273.8	293.1
25°	201.2	212.0	230.9	259.9	281.1
27.5°	181.9	192.3	212.7	245.2	268.3
30°	162.2	173.0	195.4	229.4	256.0
32.5°	143.2	153.3	177.2	214.3	242.5
35°	122.0	133.6	159.1	198.8	229.4
37.5°	103.9	114.3	141.7	183.4	216.2
40°	83.0	94.6	123.9	168.3	202.7
42.5°	63.7	75.3	107.0	153.3	190.0
45°	46.3	57.5	90.4	139.4	177.2
47.5°	35.1	41.7	74.1	125.9	162.9
50°	30.1	32.0	59.5	111.2	147.5
52.5°	26.6	27.4	46.3	96.5	132.1
55°	22.8	23.6	35.9	81.9	116.2
57.5°	19.3	19.7	29.0	68.0	99.2
60°	16.2	16.6	25.5	54.4	81.9
62.5°	13.5	13.9	22.8	42.1	65.3
65°	10.8	11.6	19.3	30.9	49.8
67.5°	8.9	10.4	16.2	21.6	34.8
70°	7.3	10.0	13.1	15.1	21.2
72.5°	6.2	9.3	11.2	10.8	10.4
75°	5.0	8.9	9.3	8.5	8.1
77.5°	4.2	7.7	7.7	7.0	6.6
80°	3.5	6.2	6.2	6.2	5.4
82.5°	3.1	5.0	5.4	5.4	4.2
85°	2.3	4.2	4.6	4.6	3.1
87.5°	1.5	3.9	4.2	3.9	2.3
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	3.57	4.92	3.94	5.23	5.54	12.74	14.09	13.11	14.40	14.71
	3H	4.68	5.87	5.06	6.20	6.57	13.25	14.44	13.63	14.77	15.14
	4H	5.20	6.31	5.60	6.66	7.04	13.27	14.38	13.67	14.73	15.11
	6H	5.63	6.65	6.05	7.02	7.42	13.28	14.30	13.70	14.67	15.07
	8H	5.82	6.79	6.25	7.18	7.59	13.28	14.25	13.71	14.64	15.05
	12H	6.00	6.93	6.44	7.31	7.74	13.29	14.21	13.72	14.59	15.02
4H	2H	4.72	5.83	5.12	6.18	6.56	12.64	13.75	13.04	14.10	14.48
	3H	6.06	6.97	6.47	7.37	7.77	13.23	14.13	13.64	14.54	14.94
	4H	6.79	7.61	7.23	8.02	8.47	13.28	14.10	13.72	14.52	14.96
	6H	7.40	8.10	7.86	8.55	9.02	13.36	14.06	13.82	14.51	14.97
	8H	7.64	8.30	8.11	8.75	9.22	13.39	14.05	13.86	14.49	14.96
	12H	7.88	8.46	8.36	8.94	9.42	13.43	14.01	13.92	14.49	14.97
8H	4H	7.26	7.92	7.73	8.36	8.83	13.24	13.90	13.71	14.35	14.82
	6H	8.11	8.65	8.61	9.14	9.62	13.37	13.91	13.87	14.40	14.88
	8H	8.52	9.00	9.04	9.51	10.01	13.45	13.94	13.97	14.45	14.94
	12H	8.93	9.36	9.45	9.86	10.43	13.57	14.00	14.09	14.49	15.07
12H	4H	7.32	7.90	7.80	8.38	8.85	13.21	13.80	13.70	14.28	14.75
	6H	8.24	8.73	8.76	9.24	9.73	13.35	13.84	13.87	14.35	14.84
	8H	8.76	9.19	9.28	9.69	10.26	13.48	13.91	14.00	14.41	14.98