

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: P1060387

Luminaire Tested: S124RDRP-S350D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060387  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S350D830-X4F0-XX-UDD-WVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

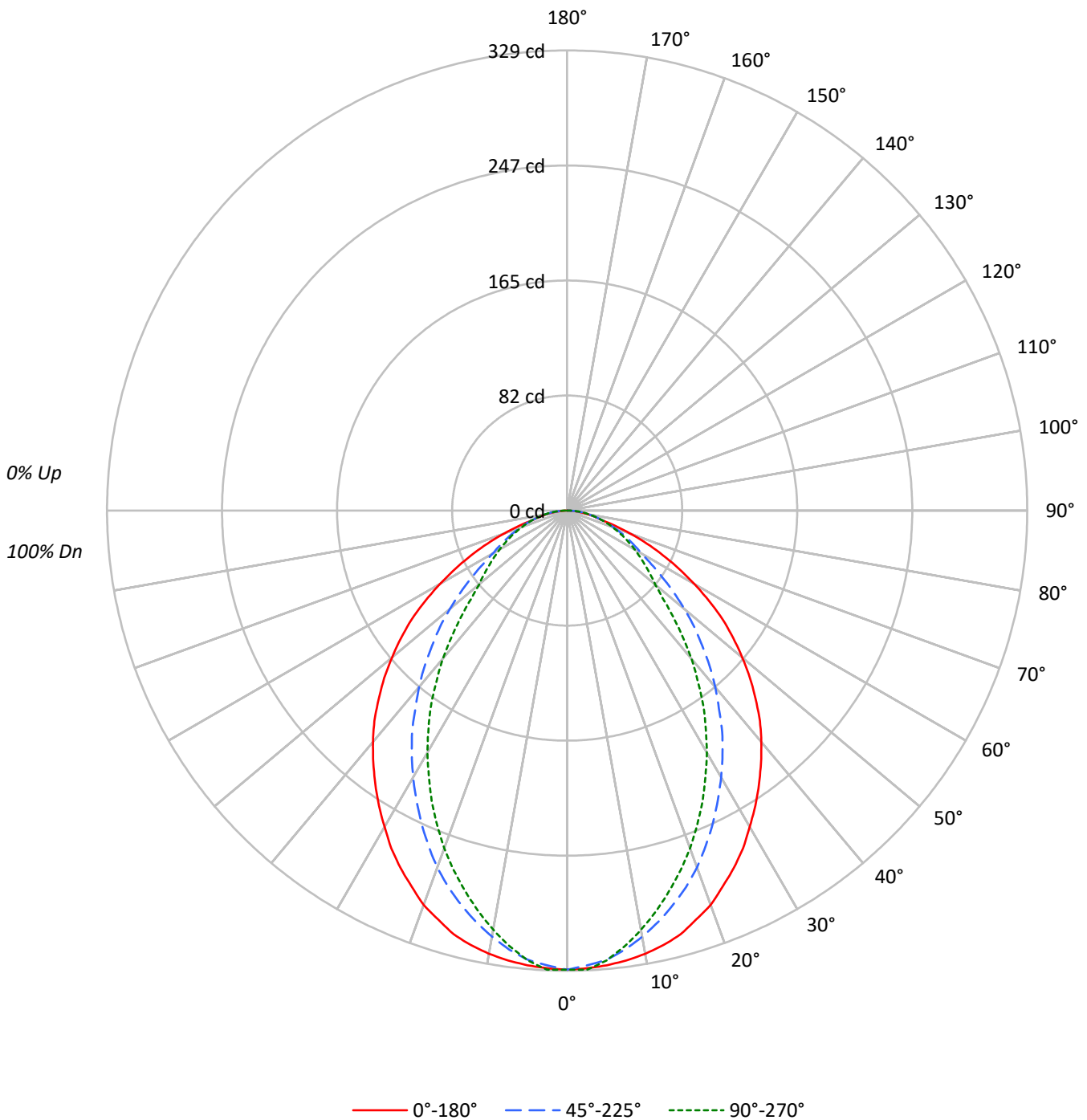
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 632.9 lumens  
Efficiency: N/A  
Efficacy: 50.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12  
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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30

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

	0°	45°	90°
0°	2826	2826	2826
5°	2821	2787	2790
10°	2813	2705	2661
15°	2796	2603	2510
20°	2750	2488	2354
25°	2678	2342	2177
30°	2596	2190	1987
35°	2513	2031	1784
40°	2428	1851	1557
45°	2320	1662	1301
50°	2190	1467	1101
55°	2039	1245	1019
60°	1807	1056	963
65°	1540	974	911
70°	1203	904	864
75°	822	835	835
80°	709	784	803
85°	613	761	840

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2320 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.5	4.8
10°-20°	82.9	13.1
20°-30°	115.1	18.2
30°-40°	123.4	19.5
40°-50°	109.3	17.3
50°-60°	82.4	13.0
60°-70°	53.3	8.4
70°-80°	27.4	4.3
80°-90°	8.4	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°	228.6	36.1
0°-40°	352.0	55.6
0°-60°	543.7	85.9
0°-90°	632.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	632.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	328	328	328	328	328	
5°	326	327	322	323	323	31
15°	314	307	292	285	282	88
25°	282	267	246	233	229	130
35°	239	218	193	176	170	150
45°	190	166	136	115	107	147
55°	136	113	83	70	68	121
65°	76	61	48	45	45	75
75°	25	26	25	25	25	29
85°	6	7	8	8	8	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	328.2	328.2	328.2	328.2	328.2
2.5°	327.5	328.6	325.5	327.8	328.6
5°	326.3	326.7	322.4	322.8	322.8
7.5°	324.4	323.6	316.7	314.7	314.3
10°	321.7	319.4	309.3	305.5	304.3
12.5°	318.2	314.0	301.2	295.8	293.5
15°	313.6	306.6	292.0	284.6	281.6
17.5°	306.6	297.8	282.3	273.1	269.6
20°	300.1	288.1	271.5	260.0	256.9
22.5°	290.8	278.1	259.2	246.8	243.0
25°	281.9	266.9	246.5	233.3	229.1
27.5°	272.3	255.3	233.3	219.5	214.1
30°	261.1	243.0	220.2	205.6	199.8
32.5°	250.3	231.0	206.7	190.5	184.4
35°	239.1	217.5	193.2	175.9	169.7
37.5°	227.6	204.8	178.2	161.2	153.1
40°	216.0	192.1	164.7	145.4	138.5
42.5°	204.0	179.0	150.8	130.8	121.9
45°	190.5	165.9	136.5	115.3	106.8
47.5°	177.4	153.1	123.4	100.3	92.6
50°	163.5	139.6	109.5	87.2	82.2
52.5°	149.7	125.7	96.0	77.1	74.8
55°	135.8	113.0	82.9	69.8	67.9
57.5°	120.3	99.9	71.4	63.3	61.7
60°	104.9	85.6	61.3	57.1	55.9
62.5°	89.9	73.3	54.4	50.9	50.1
65°	75.6	60.9	47.8	45.1	44.7
67.5°	61.7	50.1	41.7	40.1	39.3
70°	47.8	40.1	35.9	35.1	34.3
72.5°	35.5	32.4	30.5	30.1	29.7
75°	24.7	25.8	25.1	25.1	25.1
77.5°	19.7	20.1	20.4	20.8	20.4
80°	14.3	15.4	15.8	16.6	16.2
82.5°	10.0	10.8	12.0	12.3	12.7
85°	6.2	6.6	7.7	8.5	8.5
87.5°	2.7	3.1	3.9	4.6	5.0
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	14.05	15.55	14.41	15.86	16.18	10.62	12.12	10.98	12.43	12.74
	3H	15.25	16.60	15.63	16.92	17.29	12.31	13.65	12.69	13.98	14.34
	4H	15.56	16.82	15.96	17.17	17.55	12.99	14.25	13.39	14.60	14.98
	6H	15.76	16.93	16.18	17.29	17.69	13.54	14.70	13.95	15.07	15.46
	8H	15.82	16.93	16.25	17.32	17.72	13.75	14.86	14.18	15.25	15.65
	12H	15.85	16.91	16.29	17.30	17.73	13.93	14.99	14.36	15.37	15.80
4H	2H	14.19	15.45	14.59	15.80	16.18	11.28	12.54	11.68	12.88	13.26
	3H	15.59	16.64	16.00	17.04	17.44	13.18	14.23	13.60	14.63	15.03
	4H	16.02	16.96	16.45	17.37	17.81	13.99	14.93	14.42	15.34	15.78
	6H	16.34	17.16	16.80	17.60	18.06	14.67	15.49	15.13	15.93	16.39
	8H	16.44	17.21	16.91	17.65	18.12	14.95	15.71	15.41	16.15	16.62
	12H	16.51	17.19	16.99	17.67	18.14	15.18	15.86	15.66	16.34	16.81
8H	4H	16.14	16.91	16.61	17.35	17.82	14.30	15.07	14.77	15.51	15.98
	6H	16.57	17.20	17.06	17.69	18.17	15.13	15.76	15.63	16.25	16.73
	8H	16.72	17.29	17.24	17.80	18.29	15.49	16.06	16.01	16.57	17.06
	12H	16.85	17.36	17.36	17.85	18.41	15.83	16.33	16.34	16.82	17.39
12H	4H	16.15	16.83	16.63	17.31	17.78	14.33	15.01	14.81	15.49	15.96
	6H	16.59	17.16	17.11	17.67	18.16	15.19	15.76	15.71	16.27	16.76
	8H	16.80	17.30	17.31	17.80	18.36	15.62	16.12	16.13	16.62	17.18