

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: P1060381

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060381  
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-S350D830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

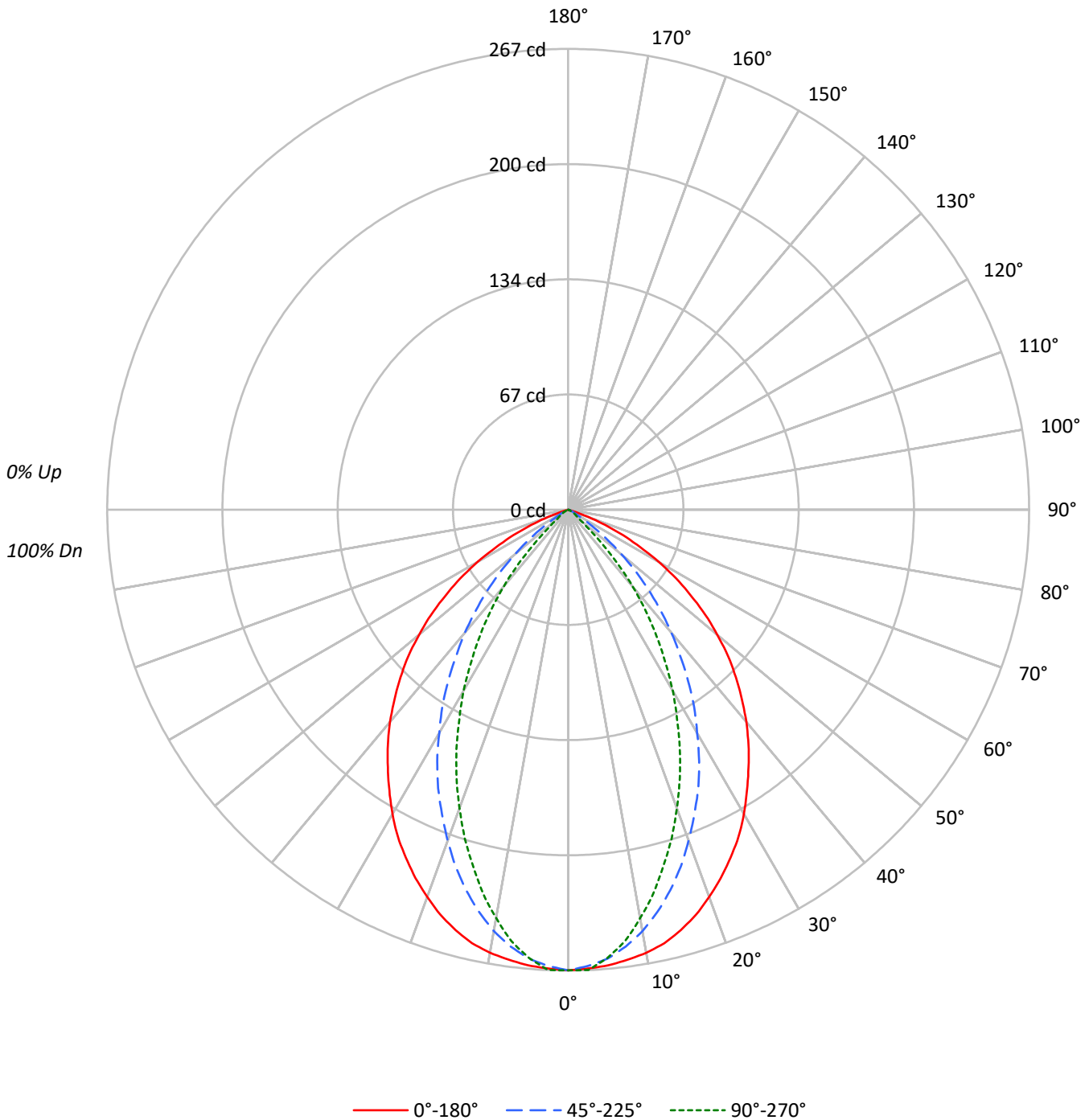
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 348.5 lumens  
Efficiency: N/A  
Efficacy: 27.9 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<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	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	44	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°	2298	2298	2298
5°	2291	2257	2253
10°	2280	2169	2101
15°	2248	2035	1902
20°	2187	1869	1686
25°	2114	1693	1455
30°	2024	1485	1204
35°	1914	1273	937
40°	1804	1045	654
45°	1672	804	324
50°	1508	543	109
55°	1303	278	75
60°	1044	100	53
65°	715	55	24
70°	320	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: 1672 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.7	7.1
10°-20°	64.6	18.5
20°-30°	83.6	24.0
30°-40°	79.5	22.8
40°-50°	56.3	16.1
50°-60°	28.9	8.3
60°-70°	10.1	2.9
70°-80°	0.9	0.3
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°	172.9	49.6
0°-40°	252.4	72.4
0°-60°	337.5	96.8
0°-90°	348.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	348.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	267	267	267	267	267	
5°	265	265	261	261	261	25
15°	252	244	228	218	213	71
25°	222	205	178	159	153	102
35°	182	155	121	98	89	114
45°	137	106	66	38	27	106
55°	87	57	18	5	5	78
65°	35	17	3	2	1	35
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°	266.9	266.9	266.9	266.9	266.9
2.5°	266.1	266.9	264.6	266.5	266.9
5°	265.0	265.4	261.1	261.1	260.7
7.5°	263.0	262.3	255.3	252.6	252.2
10°	260.7	258.0	248.0	242.2	240.3
12.5°	257.3	252.2	238.7	230.3	227.9
15°	252.2	244.5	228.3	217.5	213.3
17.5°	246.1	236.0	216.8	203.6	199.4
20°	238.7	226.0	204.0	189.4	184.0
22.5°	231.0	216.4	190.9	174.3	168.9
25°	222.5	205.2	178.2	159.3	153.1
27.5°	213.7	193.2	164.3	144.6	136.5
30°	203.6	181.3	149.3	128.8	121.1
32.5°	192.8	168.2	135.8	113.8	104.5
35°	182.1	155.4	121.1	97.6	89.1
37.5°	171.6	143.5	106.5	81.8	73.7
40°	160.5	130.4	93.0	67.5	58.2
42.5°	148.9	117.6	79.1	52.8	42.8
45°	137.3	105.7	66.0	37.8	26.6
47.5°	125.7	93.0	53.2	23.9	14.3
50°	112.6	80.6	40.5	12.7	8.1
52.5°	100.3	69.0	28.9	7.3	6.2
55°	86.8	57.1	18.5	5.4	5.0
57.5°	74.1	45.5	10.4	4.2	3.9
60°	60.6	35.1	5.8	3.5	3.1
62.5°	47.1	25.5	3.9	2.3	1.9
65°	35.1	17.0	2.7	1.5	1.2
67.5°	23.1	9.6	1.9	0.8	0.8
70°	12.7	4.6	1.2	0.8	0.8
72.5°	4.6	1.5	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	11.42	12.68	11.78	12.99	13.30	0.00	0.00	0.00	0.00	0.00
	3H	11.70	12.80	12.08	13.13	13.50	0.00	0.00	0.00	0.00	0.00
	4H	11.62	12.64	12.02	12.99	13.38	0.00	0.00	0.00	0.00	0.00
	6H	11.53	12.47	11.95	12.84	13.24	0.00	0.00	0.00	0.00	0.00
	8H	11.49	12.37	11.92	12.76	13.17	0.00	0.00	0.00	0.00	0.00
	12H	11.44	12.29	11.87	12.67	13.10	0.00	0.00	0.00	0.00	0.00
4H	2H	11.19	12.22	11.60	12.57	12.95	0.00	0.00	0.00	0.00	0.00
	3H	11.47	12.30	11.89	12.71	13.11	0.00	0.00	0.00	0.00	0.00
	4H	11.38	12.12	11.82	12.54	12.98	0.00	0.00	0.00	0.00	0.00
	6H	11.29	11.92	11.76	12.37	12.84	0.00	0.00	0.00	0.00	0.00
	8H	11.23	11.82	11.70	12.27	12.74	0.00	0.00	0.00	0.00	0.00
	12H	11.18	11.70	11.67	12.18	12.66	0.00	0.00	0.00	0.00	0.00
8H	4H	11.23	11.82	11.70	12.27	12.74	0.00	0.00	0.00	0.00	0.00
	6H	11.12	11.60	11.63	12.10	12.58	0.00	0.00	0.00	0.00	0.00
	8H	11.06	11.49	11.58	12.00	12.50	0.00	0.00	0.00	0.00	0.00
	12H	11.01	11.39	11.52	11.88	12.46	0.00	0.00	0.00	0.00	0.00
12H	4H	11.18	11.70	11.67	12.18	12.66	0.00	0.00	0.00	0.00	0.00
	6H	11.06	11.49	11.58	12.00	12.50	0.00	0.00	0.00	0.00	0.00
	8H	11.01	11.39	11.52	11.88	12.46	0.00	0.00	0.00	0.00	0.00