

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: P1060786

Luminaire Tested: S124RDRP-H350D830-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060786  
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-H350D830-X4F0-XX-UDD-BVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

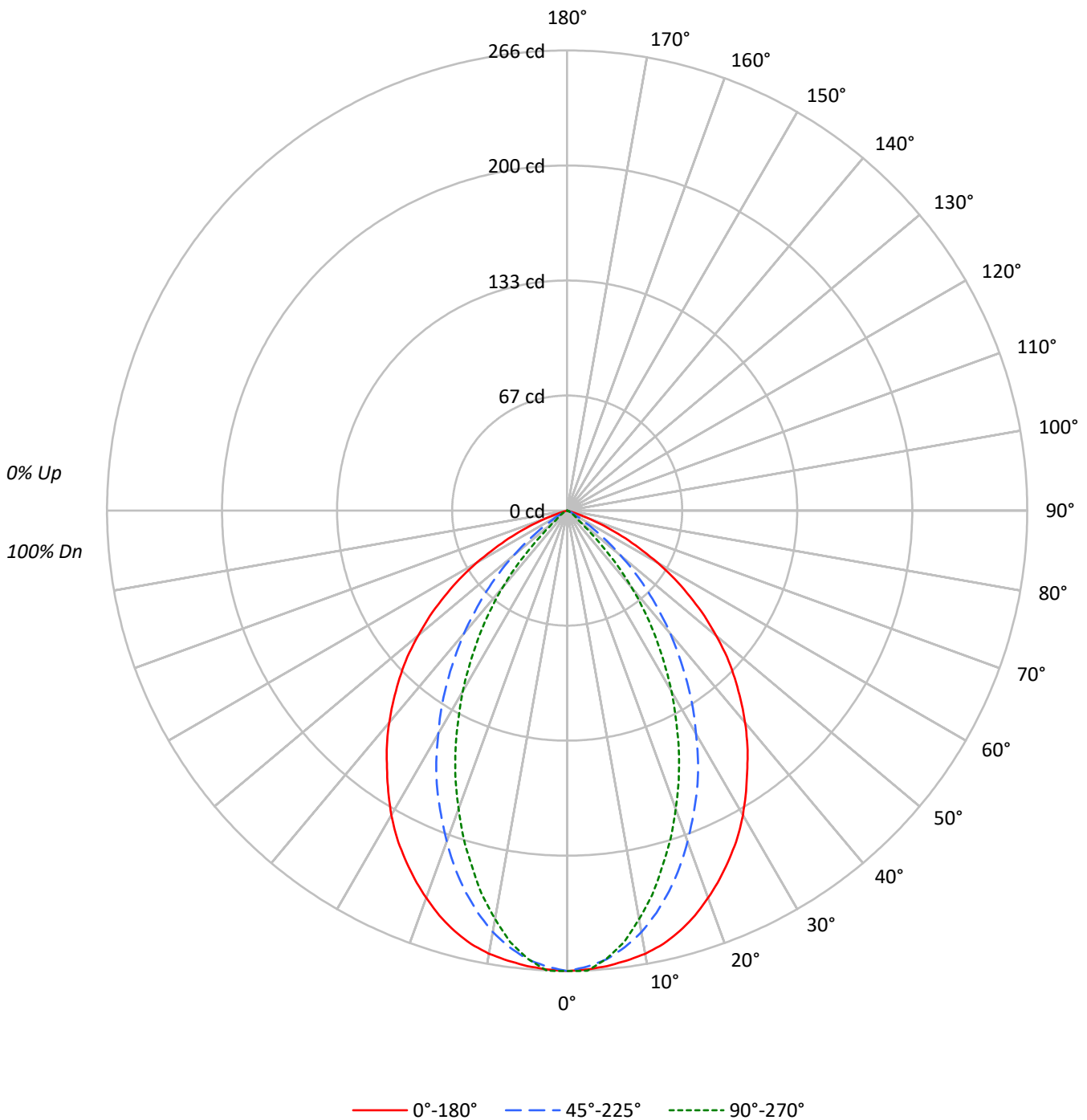
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 347.7 lumens  
Efficiency: N/A  
Efficacy: 29.7 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): 11.7  
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	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					100			
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91					91			
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82					82			
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74					74			
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66					66			
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60					60			
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55					55			
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50					50			
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46					46			
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42					42			
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39					39			

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

	0°	45°	90°
0°	2292	2292	2292
5°	2285	2252	2248
10°	2274	2163	2096
15°	2243	2031	1897
20°	2183	1865	1682
25°	2109	1689	1451
30°	2020	1481	1201
35°	1909	1270	935
40°	1800	1042	653
45°	1668	801	323
50°	1504	541	109
55°	1300	278	75
60°	1040	100	53
65°	713	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: 1668 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.6	7.1
10°-20°	64.4	18.5
20°-30°	83.4	24.0
30°-40°	79.3	22.8
40°-50°	56.1	16.1
50°-60°	28.8	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°	172.5	49.6
0°-40°	251.8	72.4
0°-60°	336.7	96.8
0°-90°	347.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	347.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	266	266	266	266	266	
5°	264	265	260	260	260	25
15°	252	244	228	217	213	71
25°	222	205	178	159	153	102
35°	182	155	121	97	89	114
45°	137	105	66	38	26	105
55°	87	57	18	5	5	77
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°	266.2	266.2	266.2	266.2	266.2
2.5°	265.5	266.2	263.9	265.9	266.2
5°	264.3	264.7	260.5	260.5	260.1
7.5°	262.4	261.6	254.7	252.0	251.6
10°	260.1	257.4	247.4	241.6	239.7
12.5°	256.6	251.6	238.2	229.7	227.4
15°	251.6	243.9	227.8	217.0	212.8
17.5°	245.5	235.5	216.2	203.2	198.9
20°	238.2	225.5	203.5	188.9	183.5
22.5°	230.5	215.8	190.5	173.9	168.5
25°	222.0	204.7	177.8	158.9	152.7
27.5°	213.2	192.8	163.9	144.3	136.2
30°	203.2	180.8	148.9	128.5	120.8
32.5°	192.4	167.8	135.4	113.5	104.3
35°	181.6	155.1	120.8	97.3	88.9
37.5°	171.2	143.1	106.2	81.6	73.5
40°	160.1	130.0	92.7	67.3	58.1
42.5°	148.5	117.3	78.9	52.7	42.7
45°	137.0	105.4	65.8	37.7	26.5
47.5°	125.4	92.7	53.1	23.9	14.2
50°	112.3	80.4	40.4	12.7	8.1
52.5°	100.0	68.9	28.9	7.3	6.2
55°	86.6	56.9	18.5	5.4	5.0
57.5°	73.9	45.4	10.4	4.2	3.8
60°	60.4	35.0	5.8	3.5	3.1
62.5°	46.9	25.4	3.8	2.3	1.9
65°	35.0	16.9	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	11.41	12.67	11.78	12.98	13.30	0.00	0.00	0.00	0.00	0.00
	3H	11.69	12.79	12.07	13.12	13.49	0.00	0.00	0.00	0.00	0.00
	4H	11.61	12.64	12.02	12.99	13.37	0.00	0.00	0.00	0.00	0.00
	6H	11.53	12.46	11.94	12.84	13.23	0.00	0.00	0.00	0.00	0.00
	8H	11.48	12.37	11.91	12.76	13.16	0.00	0.00	0.00	0.00	0.00
	12H	11.43	12.28	11.87	12.66	13.09	0.00	0.00	0.00	0.00	0.00
4H	2H	11.19	12.21	11.59	12.56	12.95	0.00	0.00	0.00	0.00	0.00
	3H	11.47	12.30	11.88	12.70	13.11	0.00	0.00	0.00	0.00	0.00
	4H	11.38	12.11	11.81	12.53	12.98	0.00	0.00	0.00	0.00	0.00
	6H	11.29	11.92	11.75	12.37	12.84	0.00	0.00	0.00	0.00	0.00
	8H	11.23	11.81	11.70	12.26	12.74	0.00	0.00	0.00	0.00	0.00
	12H	11.18	11.69	11.66	12.18	12.65	0.00	0.00	0.00	0.00	0.00
8H	4H	11.23	11.82	11.70	12.26	12.74	0.00	0.00	0.00	0.00	0.00
	6H	11.12	11.60	11.62	12.09	12.58	0.00	0.00	0.00	0.00	0.00
	8H	11.05	11.48	11.58	12.00	12.49	0.00	0.00	0.00	0.00	0.00
	12H	11.00	11.38	11.52	11.88	12.45	0.00	0.00	0.00	0.00	0.00
12H	4H	11.18	11.69	11.66	12.18	12.65	0.00	0.00	0.00	0.00	0.00
	6H	11.05	11.48	11.58	12.00	12.49	0.00	0.00	0.00	0.00	0.00
	8H	11.00	11.38	11.52	11.88	12.45	0.00	0.00	0.00	0.00	0.00