

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060867

Luminaire Tested: S124RDR-H575D830-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060867  
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: S124RDR-H575D830-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: -

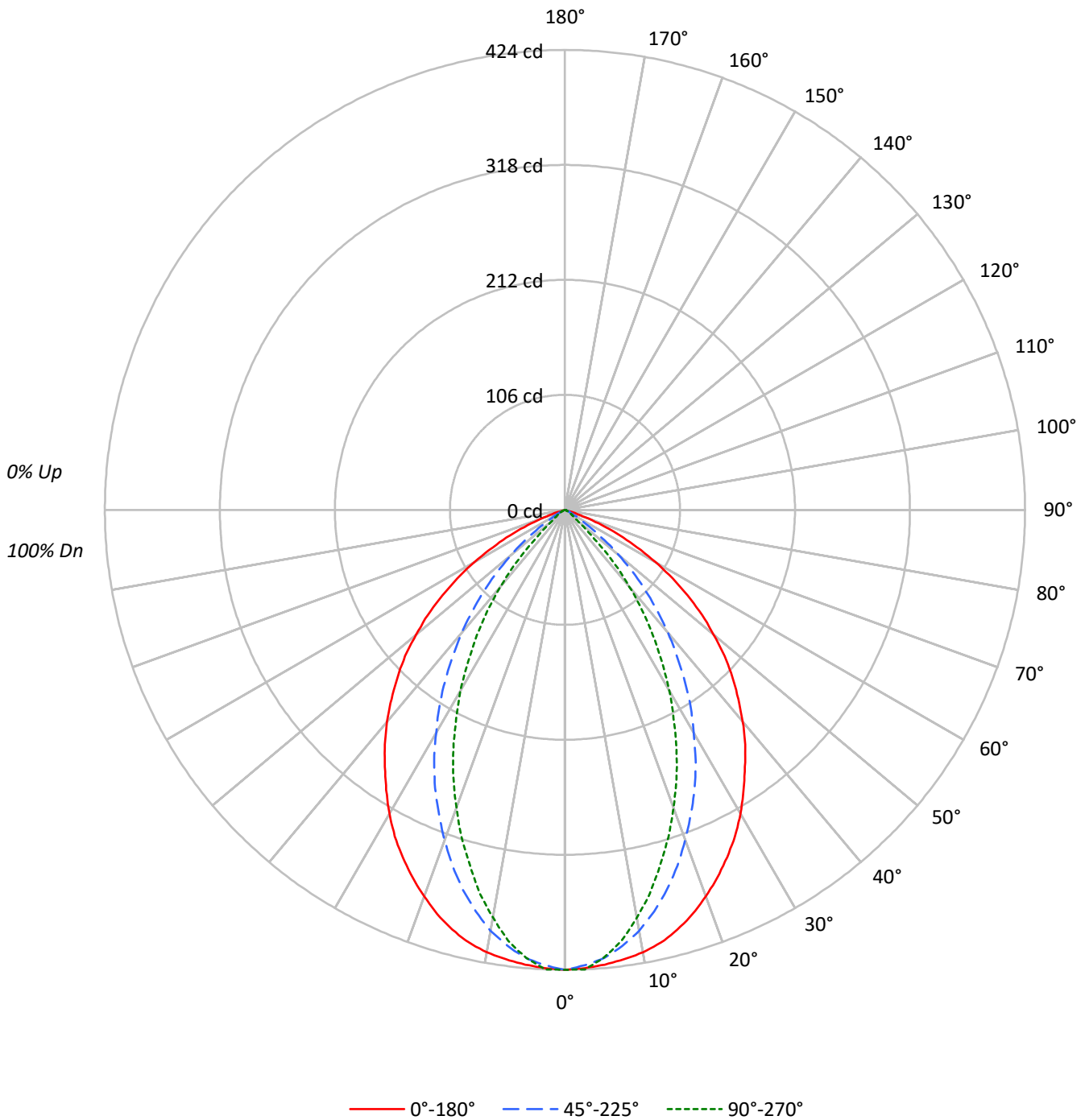
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 553.7 lumens  
Efficiency: N/A  
Efficacy: 31.8 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): 17.4  
Input Voltage (V): 120  
Input Current (Ain): 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				
RC	80					70					50					30				
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°	3651	3651	3651
5°	3638	3586	3580
10°	3622	3445	3338
15°	3572	3233	3020
20°	3476	2970	2679
25°	3359	2690	2312
30°	3217	2358	1913
35°	3040	2023	1487
40°	2865	1660	1040
45°	2656	1276	515
50°	2397	861	173
55°	2070	441	120
60°	1657	158	84
65°	1137	88	37
70°	509	45	30
75°	0	20	20
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2656 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.2	7.1
10°-20°	102.6	18.5
20°-30°	132.9	24.0
30°-40°	126.2	22.8
40°-50°	89.4	16.1
50°-60°	45.9	8.3
60°-70°	16.1	2.9
70°-80°	1.4	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°	274.7	49.6
0°-40°	400.9	72.4
0°-60°	536.2	96.8
0°-90°	553.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	553.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	424	424	424	424	424	
5°	421	422	415	415	414	40
15°	401	388	363	346	339	113
25°	354	326	283	253	243	163
35°	289	247	192	155	142	181
45°	218	168	105	60	42	168
55°	138	91	29	9	8	123
65°	56	27	4	2	2	56
75°	0	1	1	1	1	5
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°	424.0	424.0	424.0	424.0	424.0
2.5°	422.8	424.0	420.3	423.4	424.0
5°	420.9	421.6	414.8	414.8	414.2
7.5°	417.9	416.7	405.6	401.3	400.7
10°	414.2	409.9	394.0	384.8	381.7
12.5°	408.7	400.7	379.3	365.8	362.1
15°	400.7	388.5	362.7	345.6	338.8
17.5°	390.9	375.0	344.3	323.5	316.8
20°	379.3	359.1	324.1	300.8	292.3
22.5°	367.0	343.7	303.3	276.9	268.4
25°	353.5	326.0	283.1	253.1	243.3
27.5°	339.4	307.0	261.0	229.8	216.9
30°	323.5	288.0	237.1	204.6	192.4
32.5°	306.4	267.1	215.7	180.8	166.0
35°	289.2	246.9	192.4	155.0	141.5
37.5°	272.7	227.9	169.1	129.9	117.0
40°	254.9	207.1	147.7	107.2	92.5
42.5°	236.5	186.9	125.6	83.9	68.0
45°	218.1	167.9	104.8	60.0	42.3
47.5°	199.7	147.7	84.6	38.0	22.7
50°	178.9	128.1	64.3	20.2	12.9
52.5°	159.3	109.7	46.0	11.6	9.8
55°	137.9	90.7	29.4	8.6	8.0
57.5°	117.6	72.3	16.5	6.7	6.1
60°	96.2	55.8	9.2	5.5	4.9
62.5°	74.8	40.4	6.1	3.7	3.1
65°	55.8	27.0	4.3	2.5	1.8
67.5°	36.8	15.3	3.1	1.2	1.2
70°	20.2	7.4	1.8	1.2	1.2
72.5°	7.4	2.5	1.2	0.6	0.6
75°	0.0	0.6	0.6	0.6	0.6
77.5°	0.0	0.0	0.0	0.0	0.6
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	13.03	14.28	13.39	14.60	14.91	0.00	0.00	0.00	0.00	0.00
	3H	13.31	14.41	13.69	14.74	15.11	0.00	0.00	0.00	0.00	0.00
	4H	13.23	14.25	13.63	14.61	14.99	0.00	0.00	0.00	0.00	0.00
	6H	13.14	14.08	13.56	14.45	14.85	0.00	0.00	0.00	0.00	0.00
	8H	13.10	13.98	13.53	14.37	14.78	0.00	0.00	0.00	0.00	0.00
	12H	13.05	13.90	13.48	14.28	14.71	0.00	0.00	0.00	0.00	0.00
4H	2H	12.80	13.83	13.20	14.18	14.56	0.00	0.00	0.00	0.00	0.00
	3H	13.08	13.91	13.50	14.32	14.72	0.00	0.00	0.00	0.00	0.00
	4H	12.99	13.73	13.43	14.15	14.59	0.00	0.00	0.00	0.00	0.00
	6H	12.90	13.54	13.37	13.98	14.45	0.00	0.00	0.00	0.00	0.00
	8H	12.84	13.43	13.32	13.88	14.35	0.00	0.00	0.00	0.00	0.00
	12H	12.79	13.31	13.28	13.79	14.27	0.00	0.00	0.00	0.00	0.00
8H	4H	12.84	13.43	13.32	13.88	14.35	0.00	0.00	0.00	0.00	0.00
	6H	12.74	13.21	13.24	13.71	14.19	0.00	0.00	0.00	0.00	0.00
	8H	12.67	13.10	13.19	13.61	14.11	0.00	0.00	0.00	0.00	0.00
	12H	12.62	13.00	13.13	13.49	14.07	0.00	0.00	0.00	0.00	0.00
12H	4H	12.79	13.31	13.28	13.79	14.27	0.00	0.00	0.00	0.00	0.00
	6H	12.67	13.10	13.19	13.61	14.11	0.00	0.00	0.00	0.00	0.00
	8H	12.62	13.00	13.13	13.49	14.07	0.00	0.00	0.00	0.00	0.00