

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: P1060927

Luminaire Tested: S124RDR-H575D935-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060927  
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: S124RDR-H575D935-X4F0-XX-UDD-WVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

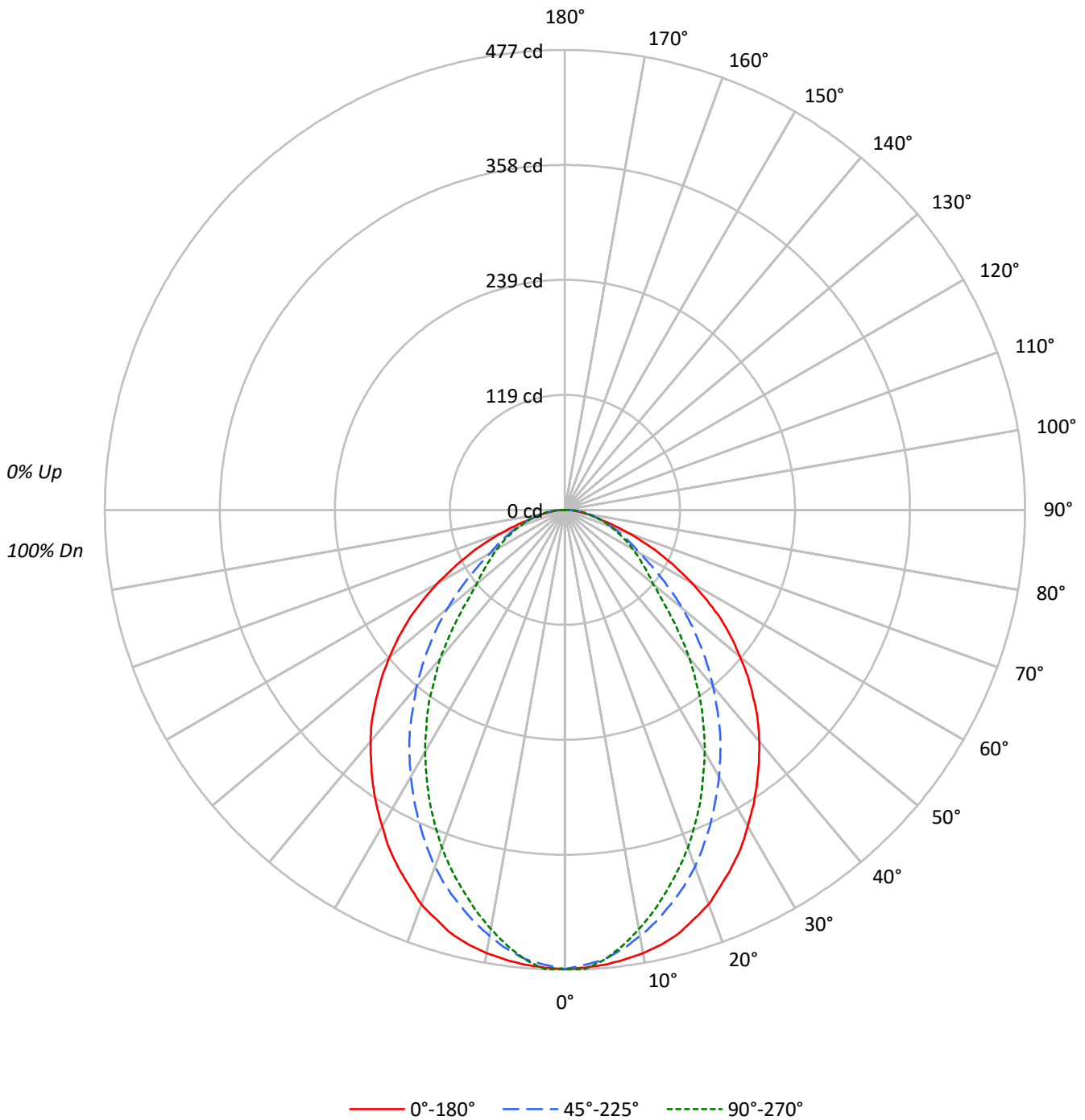
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 918.4 lumens  
Efficiency: N/A  
Efficacy: 52.8 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): 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									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	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°	4101	4101	4101
5°	4093	4045	4050
10°	4082	3925	3861
15°	4056	3777	3643
20°	3991	3611	3416
25°	3887	3399	3159
30°	3768	3178	2883
35°	3648	2948	2589
40°	3523	2687	2258
45°	3367	2412	1888
50°	3179	2130	1597
55°	2958	1806	1479
60°	2621	1533	1398
65°	2235	1414	1322
70°	1747	1312	1254
75°	1191	1211	1211
80°	1027	1136	1165
85°	889	1107	1215

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3367 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.3	4.8
10°-20°	120.3	13.1
20°-30°	167.1	18.2
30°-40°	179.1	19.5
40°-50°	158.7	17.3
50°-60°	119.6	13.0
60°-70°	77.4	8.4
70°-80°	39.7	4.3
80°-90°	12.2	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°	331.7	36.1
0°-40°	510.8	55.6
0°-60°	789.1	85.9
0°-90°	918.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	918.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	476	476	476	476	476	
5°	474	474	468	468	468	45
15°	455	445	424	413	409	128
25°	409	387	358	339	332	188
35°	347	316	280	255	246	217
45°	276	241	198	167	155	213
55°	197	164	120	101	98	175
65°	110	88	69	66	65	109
75°	36	38	36	36	36	42
85°	9	10	11	12	12	10
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	476.3	476.3	476.3	476.3	476.3
2.5°	475.2	476.9	472.4	475.8	476.9
5°	473.5	474.1	467.9	468.5	468.5
7.5°	470.7	469.6	459.5	456.7	456.2
10°	466.8	463.4	448.9	443.3	441.6
12.5°	461.8	455.6	437.1	429.3	425.9
15°	455.0	445.0	423.7	413.1	408.6
17.5°	445.0	432.1	409.7	396.3	391.2
20°	435.5	418.1	394.0	377.2	372.8
22.5°	422.0	403.6	376.1	358.2	352.6
25°	409.1	387.3	357.7	338.6	332.5
27.5°	395.2	370.5	338.6	318.5	310.6
30°	378.9	352.6	319.6	298.3	289.9
32.5°	363.3	335.3	300.0	276.5	267.5
35°	347.0	315.7	280.4	255.2	246.3
37.5°	330.2	297.2	258.6	234.0	222.2
40°	313.4	278.7	239.0	211.0	200.9
42.5°	296.1	259.7	218.8	189.7	176.9
45°	276.5	240.7	198.1	167.4	155.0
47.5°	257.5	222.2	179.1	145.5	134.3
50°	237.3	202.6	159.0	126.5	119.2
52.5°	217.2	182.5	139.4	111.9	108.6
55°	197.0	164.0	120.3	101.3	98.5
57.5°	174.6	145.0	103.5	91.8	89.6
60°	152.2	124.3	89.0	82.8	81.2
62.5°	130.4	106.3	78.9	73.9	72.8
65°	109.7	88.4	69.4	65.5	64.9
67.5°	89.6	72.8	60.4	58.2	57.1
70°	69.4	58.2	52.1	50.9	49.8
72.5°	51.5	47.0	44.2	43.7	43.1
75°	35.8	37.5	36.4	36.4	36.4
77.5°	28.5	29.1	29.7	30.2	29.7
80°	20.7	22.4	22.9	24.1	23.5
82.5°	14.6	15.7	17.4	17.9	18.5
85°	9.0	9.5	11.2	12.3	12.3
87.5°	3.9	4.5	5.6	6.7	7.3
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	15.34	16.84	15.71	17.16	17.47	11.91	13.41	12.27	13.72	14.03
	3H	16.55	17.89	16.93	18.22	18.58	13.60	14.95	13.98	15.27	15.64
	4H	16.86	18.11	17.26	18.46	18.84	14.28	15.54	14.68	15.89	16.27
	6H	17.06	18.22	17.47	18.59	18.98	14.83	15.99	15.24	16.36	16.75
	8H	17.12	18.22	17.54	18.61	19.01	15.05	16.16	15.47	16.55	16.95
	12H	17.15	18.21	17.58	18.59	19.02	15.22	16.28	15.65	16.66	17.09
4H	2H	15.49	16.74	15.89	17.09	17.47	12.57	13.83	12.97	14.18	14.56
	3H	16.89	17.93	17.30	18.33	18.73	14.48	15.52	14.89	15.92	16.32
	4H	17.31	18.25	17.75	18.67	19.11	15.28	16.22	15.71	16.64	17.08
	6H	17.64	18.46	18.10	18.90	19.36	15.97	16.79	16.43	17.23	17.69
	8H	17.74	18.50	18.20	18.94	19.41	16.24	17.01	16.71	17.45	17.92
	12H	17.81	18.49	18.29	18.97	19.44	16.47	17.15	16.95	17.63	18.10
8H	4H	17.44	18.21	17.90	18.65	19.12	15.60	16.36	16.06	16.81	17.27
	6H	17.86	18.49	18.36	18.99	19.46	16.43	17.06	16.92	17.55	18.03
	8H	18.02	18.59	18.53	19.10	19.59	16.79	17.36	17.31	17.87	18.36
	12H	18.15	18.65	18.66	19.14	19.71	17.12	17.63	17.63	18.12	18.68
12H	4H	17.45	18.13	17.93	18.61	19.08	15.63	16.31	16.11	16.79	17.26
	6H	17.89	18.45	18.40	18.96	19.45	16.49	17.05	17.00	17.56	18.05
	8H	18.10	18.60	18.61	19.09	19.66	16.92	17.42	17.43	17.91	18.48