

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: P1060906

Luminaire Tested: S124RDR-H575D927-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060906  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H575D927-X4F0-XX-UDD-SVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

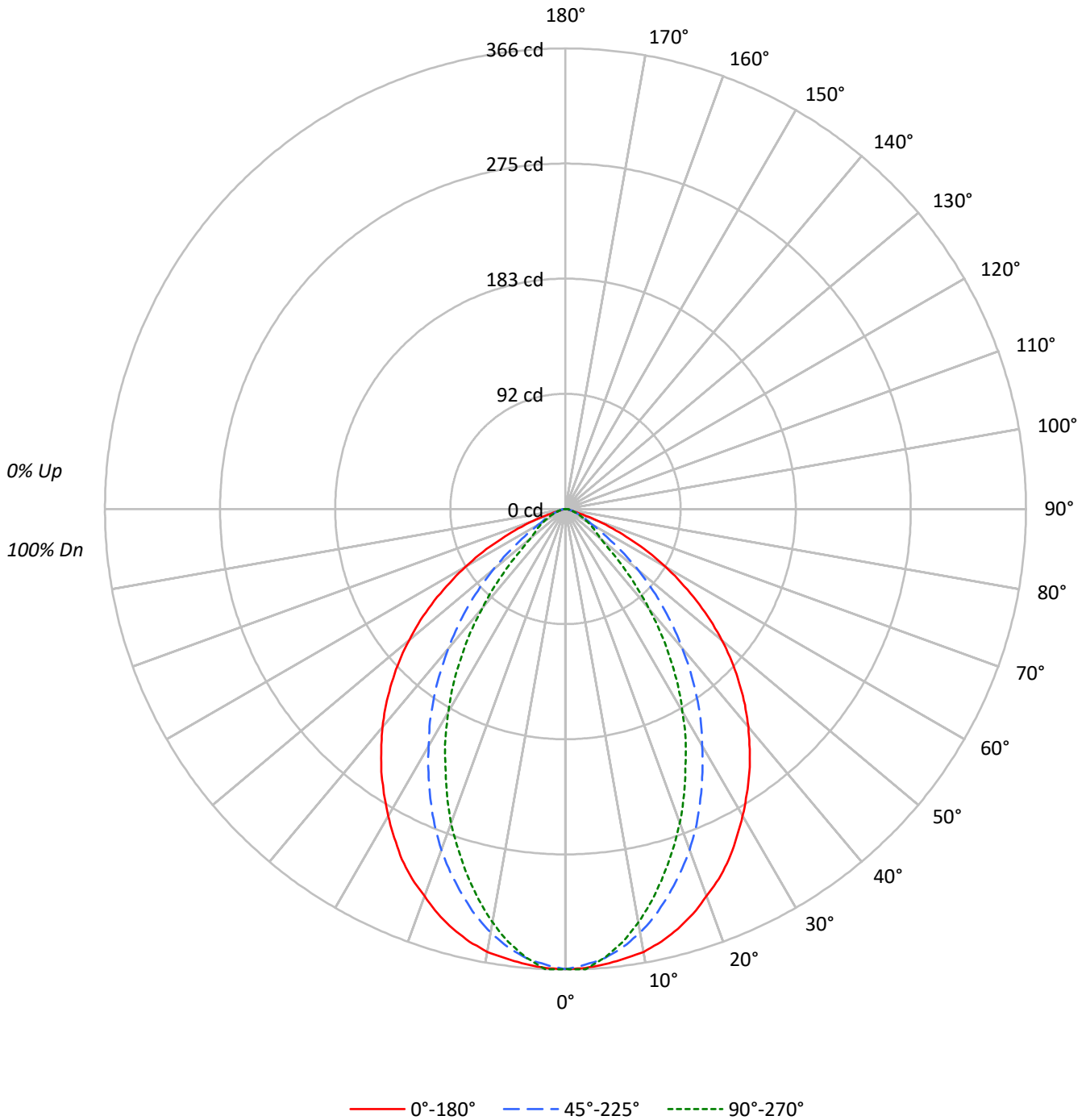
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 539.1 lumens  
Efficiency: N/A  
Efficacy: 31.0 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02  
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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90				90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80				80
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71				71
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63				63
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57				57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51				51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47				47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43				43
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36				36

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

	0°	45°	90°
0°	3148	3148	3148
5°	3139	3098	3094
10°	3125	2990	2918
15°	3080	2828	2686
20°	3001	2643	2435
25°	2921	2412	2144
30°	2801	2161	1848
35°	2680	1911	1526
40°	2542	1627	1158
45°	2377	1330	778
50°	2173	1007	482
55°	1910	665	410
60°	1579	408	338
65°	1143	314	273
70°	622	234	206
75°	136	170	190
80°	104	129	154
85°	99	99	148

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2377 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.9	6.3
10°-20°	90.0	16.7
20°-30°	119.2	22.1
30°-40°	118.3	21.9
40°-50°	91.0	16.9
50°-60°	54.3	10.1
60°-70°	24.7	4.6
70°-80°	6.4	1.2
80°-90°	1.4	0.3
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°	243.0	45.1
0°-40°	361.3	67.0
0°-60°	506.6	94.0
0°-90°	539.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	539.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	366	366	366	366	366	
5°	363	364	358	358	358	34
15°	346	337	317	306	301	97
25°	307	285	254	233	226	141
35°	255	223	182	154	145	159
45°	195	157	109	76	64	150
55°	127	91	44	28	27	113
65°	56	34	15	13	13	56
75°	4	5	5	6	6	9
85°	1	1	1	2	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	365.6	365.6	365.6	365.6	365.6
2.5°	365.1	365.6	362.5	365.1	366.1
5°	363.1	363.6	358.4	358.4	357.9
7.5°	360.5	359.4	351.2	348.1	347.1
10°	357.4	353.8	341.9	335.8	333.7
12.5°	352.2	346.6	330.6	321.9	318.3
15°	345.5	336.8	317.2	306.4	301.3
17.5°	337.3	326.5	303.3	289.4	283.7
20°	327.5	313.1	288.4	270.9	265.7
22.5°	318.3	300.2	271.9	251.8	246.2
25°	307.4	285.3	253.9	232.8	225.6
27.5°	294.6	270.9	235.9	214.2	207.0
30°	281.7	255.4	217.3	194.7	185.9
32.5°	268.3	239.5	200.3	174.6	166.3
35°	254.9	223.0	181.8	154.0	145.2
37.5°	240.5	206.5	163.2	134.4	124.6
40°	226.1	190.5	144.7	115.4	103.0
42.5°	211.1	174.1	126.7	95.8	83.4
45°	195.2	157.1	109.2	76.2	63.9
47.5°	179.2	141.1	91.7	57.2	45.8
50°	162.2	124.1	75.2	41.7	36.0
52.5°	145.2	107.6	58.7	32.4	30.9
55°	127.2	90.6	44.3	27.8	27.3
57.5°	108.7	75.2	31.9	24.2	23.2
60°	91.7	60.8	23.7	20.6	19.6
62.5°	74.2	45.8	19.6	17.0	16.0
65°	56.1	33.5	15.4	13.4	13.4
67.5°	40.7	22.7	12.4	10.8	10.3
70°	24.7	13.9	9.3	8.8	8.2
72.5°	12.4	8.2	7.2	6.7	6.7
75°	4.1	5.1	5.1	5.7	5.7
77.5°	3.1	3.6	3.6	4.1	4.1
80°	2.1	2.6	2.6	3.1	3.1
82.5°	1.5	1.5	2.1	2.1	2.6
85°	1.0	1.0	1.0	1.5	1.5
87.5°	0.5	0.5	0.5	1.0	1.0
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	13.11	14.44	13.47	14.75	15.07	4.65	5.99	5.02	6.30	6.62
	3H	13.61	14.80	13.99	15.13	15.49	5.47	6.65	5.85	6.98	7.34
	4H	13.58	14.68	13.98	15.03	15.41	5.76	6.85	6.16	7.20	7.59
	6H	13.52	14.52	13.93	14.89	15.29	5.93	6.93	6.34	7.30	7.70
	8H	13.48	14.43	13.91	14.82	15.23	5.99	6.95	6.42	7.34	7.74
	12H	13.44	14.35	13.87	14.73	15.16	6.04	6.95	6.47	7.33	7.76
4H	2H	12.95	14.05	13.35	14.40	14.78	5.09	6.19	5.49	6.54	6.92
	3H	13.50	14.40	13.91	14.80	15.20	6.06	6.95	6.47	7.36	7.76
	4H	13.47	14.27	13.90	14.69	15.13	6.43	7.22	6.86	7.64	8.08
	6H	13.42	14.10	13.88	14.55	15.02	6.68	7.36	7.14	7.81	8.27
	8H	13.37	14.01	13.84	14.46	14.93	6.77	7.41	7.24	7.85	8.32
	12H	13.33	13.90	13.82	14.38	14.85	6.84	7.40	7.33	7.89	8.36
8H	4H	13.36	14.00	13.83	14.45	14.92	6.51	7.15	6.98	7.60	8.07
	6H	13.30	13.82	13.80	14.32	14.80	6.82	7.35	7.33	7.84	8.32
	8H	13.25	13.72	13.77	14.23	14.73	6.96	7.43	7.48	7.94	8.43
	12H	13.22	13.63	13.73	14.13	14.70	7.09	7.50	7.61	8.00	8.57
12H	4H	13.32	13.88	13.80	14.36	14.84	6.49	7.05	6.97	7.53	8.01
	6H	13.24	13.71	13.76	14.23	14.72	6.80	7.27	7.33	7.79	8.28
	8H	13.22	13.63	13.73	14.12	14.70	6.98	7.39	7.49	7.89	8.46