

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: P1060880

Luminaire Tested: S124RDR-H575D835-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060880  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-77)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H575D835-X4F0-XX-UDD-SVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

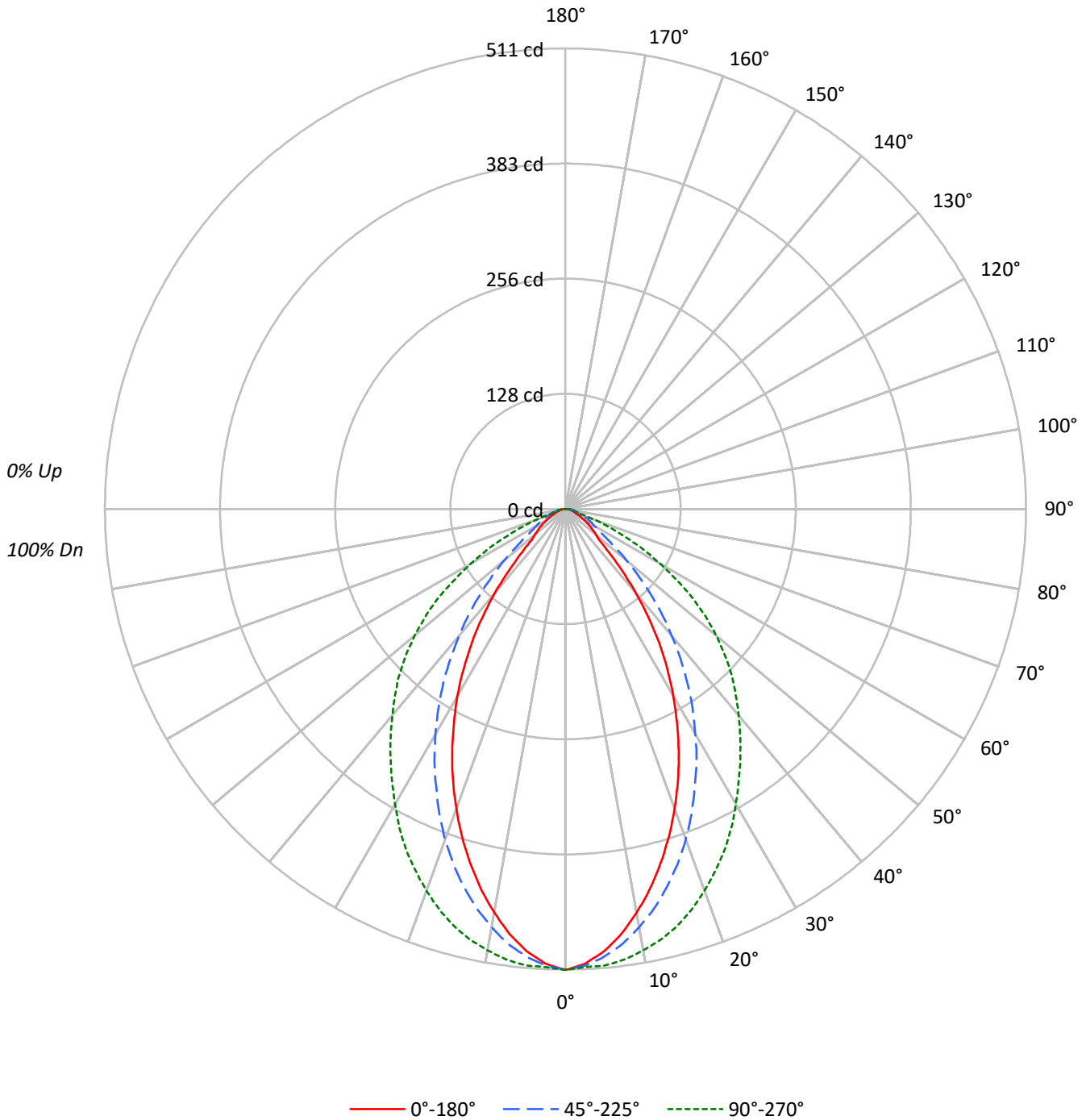
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 719.1 lumens  
Efficiency: N/A  
Efficacy: 41.3 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70
4	90	80	73	68	88	79	72	67	77	71	67	75	70	66	73	68	65	63
5	84	73	66	61	82	72	65	60	70	64	60	69	63	59	67	62	59	57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	45	43
9	65	54	46	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	36

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

	0°	45°	90°
0°	4404	4404	4404
5°	4257	4308	4393
10°	3977	4119	4347
15°	3631	3874	4269
20°	3244	3578	4132
25°	2825	3227	3969
30°	2380	2866	3759
35°	1902	2483	3556
40°	1368	2063	3357
45°	824	1625	3177
50°	592	1176	2920
55°	498	791	2588
60°	403	627	2084
65°	318	571	1498
70°	279	476	803
75°	260	433	389
80°	258	451	357
85°	385	642	454

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3177 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.9	6.5
10°-20°	123.0	17.1
20°-30°	159.6	22.2
30°-40°	153.4	21.3
40°-50°	113.8	15.8
50°-60°	69.7	9.7
60°-70°	33.9	4.7
70°-80°	12.9	1.8
80°-90°	5.8	0.8
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°	329.6	45.8
0°-40°	483.0	67.2
0°-60°	666.5	92.7
0°-90°	719.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	719.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	511	511	511	511	511	
5°	492	500	498	503	508	46
15°	407	419	435	461	479	114
25°	297	312	340	383	418	136
35°	181	197	236	292	338	112
45°	68	85	133	204	261	56
55°	33	34	53	119	172	30
65°	16	17	28	44	74	16
75°	8	12	13	12	12	8
85°	4	6	6	6	5	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	511.4	511.4	511.4	511.4	511.4
2.5°	504.9	510.8	506.9	508.2	508.8
5°	492.5	499.7	498.4	502.9	508.2
7.5°	475.6	484.1	486.7	495.8	504.3
10°	454.8	465.2	471.1	486.0	497.1
12.5°	432.0	443.1	454.2	474.3	489.3
15°	407.3	419.0	434.6	460.7	478.9
17.5°	381.3	394.3	413.2	444.4	465.9
20°	354.0	367.6	390.4	424.9	450.9
22.5°	326.0	340.3	365.7	404.1	434.6
25°	297.3	312.3	339.6	383.2	417.7
27.5°	268.1	283.7	314.9	361.1	398.8
30°	239.4	254.4	288.2	338.3	378.0
32.5°	210.2	225.8	262.2	314.9	357.9
35°	180.9	197.1	236.2	292.1	338.3
37.5°	150.9	168.5	209.5	270.0	318.8
40°	121.7	138.6	183.5	247.2	298.6
42.5°	93.0	111.3	158.8	224.5	279.8
45°	67.7	84.6	133.4	203.7	260.9
47.5°	50.8	61.2	110.0	184.1	240.1
50°	44.2	46.2	87.8	162.7	218.0
52.5°	38.4	39.7	68.3	139.2	195.8
55°	33.2	34.5	52.7	119.1	172.4
57.5°	28.0	29.3	42.3	99.5	145.7
60°	23.4	24.7	36.4	79.4	121.0
62.5°	19.5	20.2	32.5	60.5	96.9
65°	15.6	16.9	28.0	44.2	73.5
67.5°	13.0	14.3	22.8	30.6	51.4
70°	11.1	14.3	18.9	21.5	31.9
72.5°	9.1	13.0	15.6	15.0	15.0
75°	7.8	12.4	13.0	11.7	11.7
77.5°	6.5	11.1	10.4	9.8	9.1
80°	5.2	9.1	9.1	7.8	7.2
82.5°	4.6	7.2	7.2	7.2	5.9
85°	3.9	6.5	6.5	5.9	4.6
87.5°	2.6	5.2	5.9	5.2	3.3
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	4.97	6.31	5.33	6.62	6.93	14.06	15.40	14.43	15.71	16.03
	3H	6.01	7.20	6.39	7.53	7.89	14.56	15.75	14.94	16.08	16.44
	4H	6.53	7.63	6.93	7.98	8.37	14.58	15.68	14.98	16.03	16.42
	6H	6.98	7.99	7.39	8.36	8.76	14.58	15.59	14.99	15.96	16.36
	8H	7.17	8.13	7.60	8.52	8.93	14.57	15.54	15.00	15.93	16.33
	12H	7.38	8.31	7.82	8.69	9.12	14.57	15.49	15.01	15.88	16.31
4H	2H	6.06	7.17	6.46	7.52	7.90	13.95	15.06	14.35	15.41	15.79
	3H	7.33	8.24	7.74	8.64	9.04	14.53	15.43	14.94	15.84	16.24
	4H	8.04	8.85	8.47	9.27	9.71	14.58	15.39	15.01	15.80	16.25
	6H	8.67	9.37	9.13	9.81	10.28	14.63	15.33	15.09	15.77	16.24
	8H	8.92	9.57	9.39	10.02	10.49	14.65	15.30	15.12	15.75	16.22
	12H	9.19	9.77	9.68	10.25	10.73	14.68	15.26	15.17	15.74	16.22
8H	4H	8.46	9.12	8.93	9.56	10.04	14.52	15.18	14.99	15.63	16.10
	6H	9.34	9.88	9.84	10.37	10.85	14.62	15.15	15.12	15.65	16.13
	8H	9.75	10.23	10.27	10.75	11.24	14.68	15.16	15.20	15.68	16.17
	12H	10.23	10.66	10.75	11.15	11.72	14.78	15.21	15.30	15.70	16.27
12H	4H	8.51	9.09	8.99	9.57	10.04	14.50	15.08	14.98	15.56	16.03
	6H	9.45	9.94	9.98	10.45	10.94	14.60	15.08	15.12	15.59	16.09
	8H	9.98	10.40	10.49	10.90	11.47	14.71	15.13	15.22	15.63	16.20