

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: P1060474

Luminaire Tested: S124RDRP-S575D835-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060474  
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: S124RDRP-S575D835-X4F0-XX-UDD-SVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

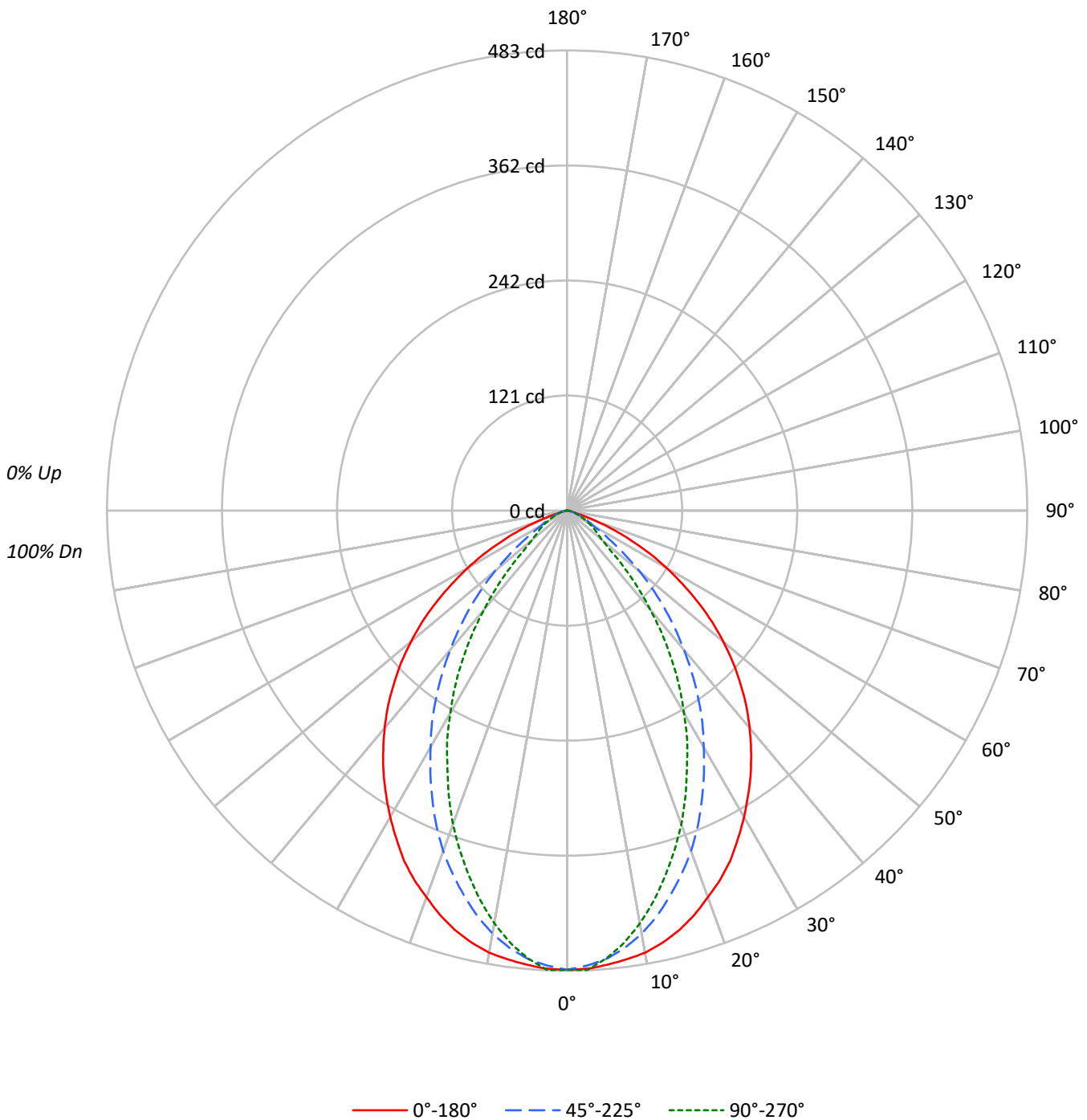
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 710.7 lumens  
Efficiency: N/A  
Efficacy: 36.3 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): 19.6  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63
5	84	74	66	61	82	73	66	60	71	65	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	48	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36

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

	0°	45°	90°
0°	4151	4151	4151
5°	4137	4084	4078
10°	4120	3942	3846
15°	4062	3728	3541
20°	3957	3484	3210
25°	3851	3180	2826
30°	3693	2849	2437
35°	3533	2520	2013
40°	3350	2145	1527
45°	3133	1752	1025
50°	2866	1328	636
55°	2518	877	540
60°	2080	537	444
65°	1508	416	361
70°	821	307	274
75°	180	226	250
80°	134	169	203
85°	138	138	198

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3133 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.7	6.3
10°-20°	118.6	16.7
20°-30°	157.1	22.1
30°-40°	156.0	21.9
40°-50°	120.0	16.9
50°-60°	71.5	10.1
60°-70°	32.5	4.6
70°-80°	8.4	1.2
80°-90°	1.9	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°	320.4	45.1
0°-40°	476.4	67.0
0°-60°	667.9	94.0
0°-90°	710.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	710.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	482	482	482	482	482	
5°	479	479	472	472	472	45
15°	456	444	418	404	397	128
25°	405	376	335	307	297	186
35°	336	294	240	203	192	210
45°	257	207	144	100	84	198
55°	168	120	58	37	36	149
65°	74	44	20	18	18	74
75°	5	7	7	8	8	11
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°	482.0	482.0	482.0	482.0	482.0
2.5°	481.4	482.0	478.0	481.4	482.7
5°	478.6	479.3	472.5	472.5	471.8
7.5°	475.2	473.9	463.0	459.0	457.6
10°	471.2	466.4	450.8	442.7	439.9
12.5°	464.4	456.9	435.9	424.3	419.6
15°	455.6	444.0	418.2	404.0	397.2
17.5°	444.7	430.4	399.9	381.6	374.1
20°	431.8	412.8	380.2	357.1	350.3
22.5°	419.6	395.8	358.5	332.0	324.5
25°	405.3	376.1	334.7	306.9	297.4
27.5°	388.3	357.1	310.9	282.4	272.9
30°	371.4	336.7	286.5	256.6	245.1
32.5°	353.7	315.7	264.1	230.2	219.3
35°	336.1	294.0	239.7	203.0	191.5
37.5°	317.1	272.2	215.2	177.2	164.3
40°	298.0	251.2	190.8	152.1	135.8
42.5°	278.4	229.5	167.0	126.3	110.0
45°	257.3	207.1	143.9	100.5	84.2
47.5°	236.3	186.0	120.8	75.4	60.4
50°	213.9	163.6	99.1	55.0	47.5
52.5°	191.5	141.9	77.4	42.8	40.7
55°	167.7	119.5	58.4	36.7	36.0
57.5°	143.3	99.1	42.1	31.9	30.6
60°	120.8	80.1	31.2	27.2	25.8
62.5°	97.8	60.4	25.8	22.4	21.0
65°	74.0	44.1	20.4	17.7	17.7
67.5°	53.6	29.9	16.3	14.3	13.6
70°	32.6	18.3	12.2	11.5	10.9
72.5°	16.3	10.9	9.5	8.8	8.8
75°	5.4	6.8	6.8	7.5	7.5
77.5°	4.1	4.8	4.8	5.4	5.4
80°	2.7	3.4	3.4	4.1	4.1
82.5°	2.0	2.0	2.7	2.7	3.4
85°	1.4	1.4	1.4	2.0	2.0
87.5°	0.7	0.7	0.7	1.4	1.4
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	14.06	15.40	14.43	15.71	16.03	5.61	6.95	5.98	7.26	7.58
	3H	14.57	15.75	14.95	16.08	16.45	6.43	7.61	6.81	7.94	8.31
	4H	14.54	15.64	14.94	15.99	16.37	6.72	7.81	7.12	8.17	8.55
	6H	14.47	15.48	14.89	15.85	16.25	6.89	7.89	7.30	8.26	8.66
	8H	14.44	15.39	14.87	15.78	16.19	6.95	7.91	7.38	8.30	8.70
	12H	14.40	15.31	14.83	15.69	16.12	7.00	7.91	7.43	8.29	8.72
4H	2H	13.91	15.00	14.31	15.35	15.74	6.06	7.16	6.46	7.51	7.89
	3H	14.46	15.35	14.87	15.76	16.16	7.02	7.91	7.43	8.32	8.72
	4H	14.43	15.22	14.86	15.64	16.09	7.39	8.18	7.82	8.60	9.05
	6H	14.38	15.06	14.84	15.51	15.97	7.64	8.32	8.10	8.77	9.24
	8H	14.33	14.97	14.80	15.42	15.89	7.73	8.37	8.19	8.81	9.28
	12H	14.29	14.86	14.78	15.34	15.81	7.80	8.36	8.29	8.85	9.32
8H	4H	14.32	14.96	14.79	15.40	15.88	7.48	8.11	7.94	8.56	9.03
	6H	14.26	14.78	14.76	15.27	15.76	7.79	8.31	8.29	8.80	9.29
	8H	14.21	14.68	14.73	15.19	15.68	7.92	8.39	8.44	8.90	9.39
	12H	14.18	14.59	14.69	15.09	15.66	8.05	8.46	8.56	8.96	9.53
12H	4H	14.28	14.84	14.76	15.32	15.80	7.45	8.01	7.94	8.50	8.97
	6H	14.20	14.67	14.72	15.19	15.68	7.77	8.23	8.29	8.75	9.24
	8H	14.17	14.59	14.69	15.08	15.65	7.94	8.35	8.45	8.84	9.42