

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: P1060477

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060477  
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: S124RDRP-S575D835-X4F0-XX-UDD-WVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

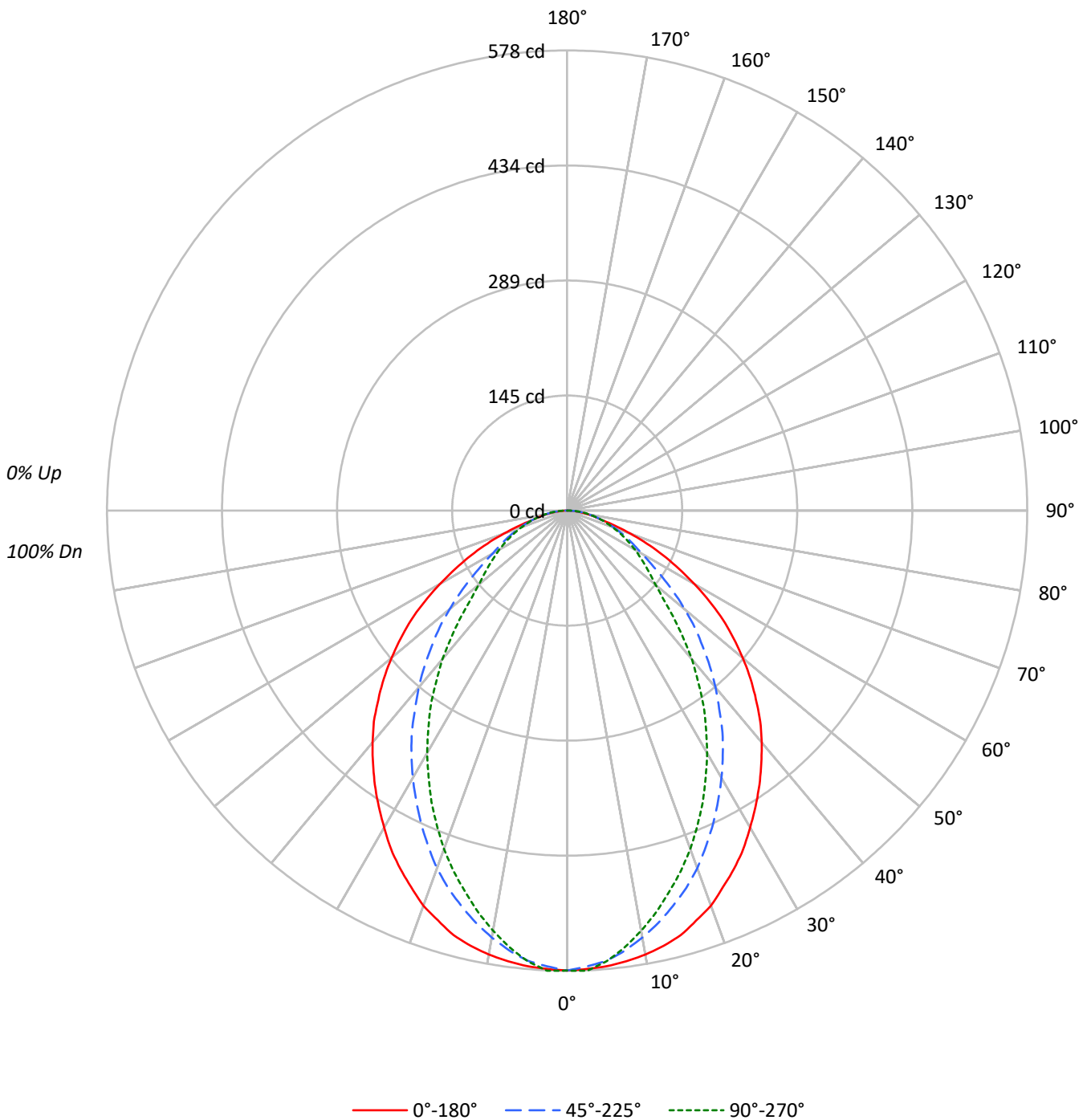
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1114.0 lumens  
Efficiency: N/A  
Efficacy: 56.8 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): 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	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°	4976	4976	4976
5°	4965	4906	4912
10°	4951	4761	4684
15°	4921	4581	4418
20°	4840	4380	4144
25°	4716	4122	3832
30°	4570	3855	3497
35°	4425	3575	3140
40°	4274	3259	2739
45°	4084	2926	2291
50°	3857	2583	1937
55°	3588	2192	1794
60°	3181	1858	1695
65°	2712	1716	1606
70°	2120	1589	1521
75°	1447	1467	1467
80°	1245	1379	1413
85°	1077	1344	1472

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4084 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.8	4.8
10°-20°	146.0	13.1
20°-30°	202.7	18.2
30°-40°	217.2	19.5
40°-50°	192.5	17.3
50°-60°	145.0	13.0
60°-70°	93.9	8.4
70°-80°	48.2	4.3
80°-90°	14.8	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°	402.4	36.1
0°-40°	619.6	55.6
0°-60°	957.1	85.9
0°-90°	1114.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1114.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	578	578	578	578	578	
5°	574	575	568	568	568	55
15°	552	540	514	501	496	155
25°	496	470	434	411	403	228
35°	421	383	340	310	299	263
45°	335	292	240	203	188	259
55°	239	199	146	123	120	212
65°	133	107	84	79	79	132
75°	44	46	44	44	44	51
85°	11	12	14	15	15	13
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	577.8	577.8	577.8	577.8	577.8
2.5°	576.4	578.4	573.0	577.1	578.4
5°	574.4	575.1	567.6	568.3	568.3
7.5°	571.0	569.6	557.4	554.0	553.3
10°	566.2	562.2	544.5	537.7	535.7
12.5°	560.1	552.6	530.2	520.7	516.7
15°	552.0	539.7	513.9	501.0	495.6
17.5°	539.7	524.1	497.0	480.7	474.6
20°	528.2	507.2	478.0	457.6	452.2
22.5°	511.9	489.5	456.2	434.5	427.7
25°	496.3	469.8	433.8	410.8	403.3
27.5°	479.3	449.4	410.8	386.3	376.8
30°	459.6	427.7	387.7	361.9	351.7
32.5°	440.6	406.7	363.9	335.4	324.5
35°	420.9	382.9	340.1	309.6	298.7
37.5°	400.6	360.5	313.7	283.8	269.5
40°	380.2	338.1	289.9	256.0	243.7
42.5°	359.2	315.0	265.5	230.2	214.5
45°	335.4	291.9	240.3	203.0	188.1
47.5°	312.3	269.5	217.3	176.5	162.9
50°	287.9	245.8	192.8	153.4	144.6
52.5°	263.4	221.3	169.1	135.8	131.7
55°	239.0	198.9	146.0	122.9	119.5
57.5°	211.8	175.8	125.6	111.3	108.6
60°	184.7	150.7	107.9	100.5	98.4
62.5°	158.2	129.0	95.7	89.6	88.3
65°	133.1	107.3	84.2	79.4	78.8
67.5°	108.6	88.3	73.3	70.6	69.3
70°	84.2	70.6	63.1	61.8	60.4
72.5°	62.5	57.0	53.6	53.0	52.3
75°	43.5	45.5	44.1	44.1	44.1
77.5°	34.6	35.3	36.0	36.7	36.0
80°	25.1	27.2	27.8	29.2	28.5
82.5°	17.7	19.0	21.0	21.7	22.4
85°	10.9	11.5	13.6	14.9	14.9
87.5°	4.8	5.4	6.8	8.1	8.8
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	16.01	17.51	16.38	17.82	18.14	12.58	14.07	12.94	14.39	14.70
	3H	17.22	18.56	17.60	18.89	19.25	14.27	15.62	14.65	15.94	16.31
	4H	17.52	18.78	17.92	19.13	19.51	14.95	16.21	15.35	16.56	16.94
	6H	17.73	18.89	18.14	19.26	19.65	15.50	16.66	15.91	17.03	17.42
	8H	17.79	18.89	18.21	19.28	19.68	15.72	16.82	16.14	17.21	17.62
	12H	17.82	18.88	18.25	19.26	19.69	15.89	16.95	16.32	17.33	17.76
4H	2H	16.15	17.41	16.55	17.76	18.14	13.24	14.50	13.64	14.85	15.22
	3H	17.56	18.60	17.97	19.00	19.40	15.15	16.19	15.56	16.59	16.99
	4H	17.98	18.92	18.42	19.34	19.78	15.95	16.89	16.38	17.31	17.74
	6H	18.31	19.13	18.77	19.57	20.03	16.64	17.46	17.10	17.90	18.36
	8H	18.41	19.17	18.87	19.61	20.08	16.91	17.68	17.37	18.12	18.59
	12H	18.48	19.16	18.96	19.64	20.11	17.14	17.82	17.62	18.30	18.77
8H	4H	18.11	18.87	18.57	19.32	19.79	16.27	17.03	16.73	17.47	17.94
	6H	18.53	19.16	19.03	19.66	20.13	17.10	17.73	17.59	18.22	18.70
	8H	18.69	19.26	19.20	19.77	20.26	17.46	18.03	17.97	18.54	19.03
	12H	18.82	19.32	19.33	19.81	20.38	17.79	18.29	18.30	18.79	19.35
12H	4H	18.12	18.80	18.60	19.28	19.75	16.29	16.98	16.78	17.46	17.93
	6H	18.56	19.12	19.07	19.63	20.12	17.15	17.72	17.67	18.23	18.72
	8H	18.77	19.27	19.28	19.76	20.33	17.59	18.09	18.10	18.58	19.15