

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: P1060472

Luminaire Tested: S124RDRP-S575D835-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060472  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S575D835-X4F0-XX-UDD-BVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

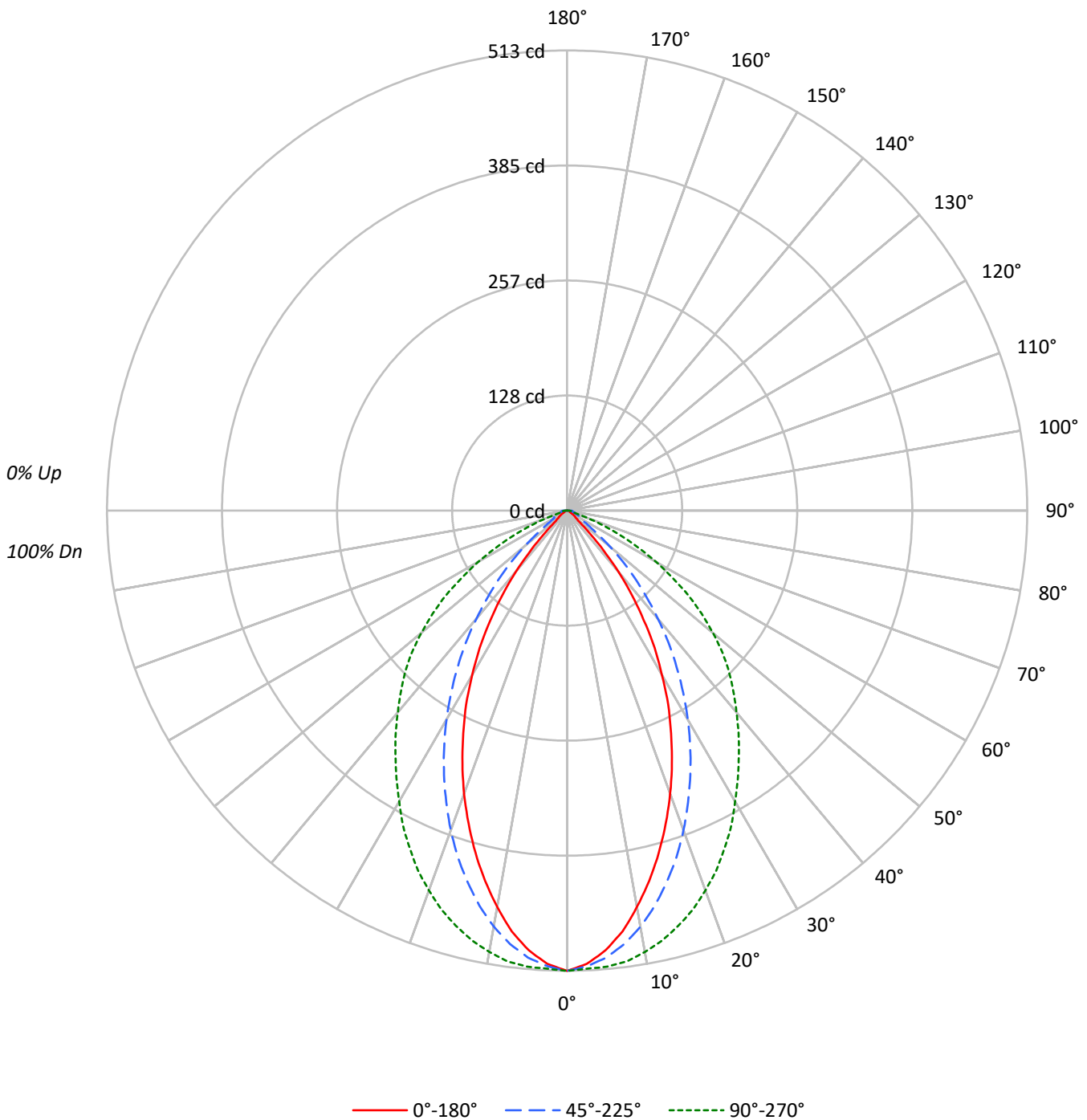
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 644.0 lumens  
Efficiency: N/A  
Efficacy: 32.9 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97  
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	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	88	85	83	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39

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

	0°	45°	90°
0°	4419	4419	4419
5°	4254	4324	4412
10°	3923	4118	4368
15°	3520	3824	4272
20°	3077	3476	4129
25°	2602	3087	3946
30°	2102	2676	3724
35°	1564	2236	3508
40°	994	1773	3300
45°	397	1299	3113
50°	173	829	2841
55°	132	428	2480
60°	93	293	1967
65°	69	291	1343
70°	68	257	617
75°	90	273	250
80°	134	302	268
85°	267	534	405

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3113 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.0	7.3
10°-20°	121.2	18.8
20°-30°	153.0	23.8
30°-40°	140.6	21.8
40°-50°	95.8	14.9
50°-60°	52.0	8.1
60°-70°	22.1	3.4
70°-80°	7.6	1.2
80°-90°	4.8	0.7
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°	321.2	49.9
0°-40°	461.7	71.7
0°-60°	609.5	94.6
0°-90°	644.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	644.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	513	513	513	513	513	
5°	492	500	500	504	510	46
15°	395	408	429	460	479	110
25°	274	292	325	375	415	125
35°	149	169	213	279	334	92
45°	33	52	107	189	256	30
55°	9	10	28	104	165	8
65°	3	4	14	33	66	4
75°	3	8	8	8	8	3
85°	3	5	5	5	4	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	513.2	513.2	513.2	513.2	513.2
2.5°	505.7	511.8	508.4	509.8	511.1
5°	492.1	499.6	500.2	504.3	510.4
7.5°	473.1	481.9	487.3	497.5	507.0
10°	448.6	459.5	471.0	487.3	499.6
12.5°	422.8	434.3	451.3	474.4	490.7
15°	394.9	407.8	428.9	459.5	479.2
17.5°	365.7	379.9	405.1	441.1	466.3
20°	335.8	351.4	379.3	420.0	450.6
22.5°	305.2	321.5	352.1	398.3	434.3
25°	273.9	291.6	324.9	375.2	415.3
27.5°	244.0	260.3	297.0	352.1	396.2
30°	211.4	229.7	269.1	328.3	374.5
32.5°	181.5	199.1	240.6	303.8	354.1
35°	148.8	168.6	212.7	279.3	333.7
37.5°	118.3	137.3	185.6	256.2	314.0
40°	88.4	108.1	157.7	233.1	293.6
42.5°	59.1	80.2	131.2	209.3	274.6
45°	32.6	52.3	106.7	188.9	255.6
47.5°	17.0	28.5	83.6	168.6	235.2
50°	12.9	15.6	61.9	146.1	212.1
52.5°	10.9	11.6	42.1	123.7	188.9
55°	8.8	9.5	28.5	104.0	165.2
57.5°	6.8	7.5	20.4	85.0	138.7
60°	5.4	6.1	17.0	65.2	114.2
62.5°	4.1	4.8	16.3	48.3	89.7
65°	3.4	4.1	14.3	32.6	65.9
67.5°	2.7	4.1	12.2	21.1	44.2
70°	2.7	5.4	10.2	13.6	24.5
72.5°	2.7	6.1	8.8	8.8	8.8
75°	2.7	7.5	8.2	7.5	7.5
77.5°	2.7	6.8	6.8	6.8	6.8
80°	2.7	6.1	6.1	6.1	5.4
82.5°	2.7	5.4	6.1	6.1	4.8
85°	2.7	5.4	5.4	5.4	4.1
87.5°	2.0	5.4	5.4	5.4	2.7
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	0.00	0.00	0.00	0.00	0.00	13.61	14.88	13.97	15.20	15.51
	3H	0.00	0.00	0.00	0.00	0.00	13.96	15.09	14.34	15.42	15.79
	4H	0.00	0.00	0.00	0.00	0.29	13.93	14.98	14.33	15.33	15.71
	6H	0.00	0.82	0.28	1.19	1.59	13.90	14.87	14.32	15.24	15.63
	8H	0.53	1.44	0.96	1.84	2.24	13.89	14.80	14.33	15.20	15.60
	12H	1.33	2.20	1.76	2.58	3.01	13.89	14.76	14.33	15.15	15.58
4H	2H	0.00	0.36	0.00	0.72	1.10	13.41	14.46	13.81	14.81	15.19
	3H	0.73	1.58	1.14	1.99	2.39	13.81	14.66	14.22	15.07	15.47
	4H	2.18	2.94	2.61	3.36	3.81	13.79	14.55	14.22	14.97	15.41
	6H	3.42	4.08	3.88	4.52	4.99	13.80	14.46	14.27	14.91	15.38
	8H	3.98	4.59	4.45	5.04	5.51	13.81	14.43	14.28	14.88	15.35
	12H	4.65	5.19	5.13	5.67	6.15	13.85	14.39	14.34	14.88	15.35
8H	4H	3.25	3.87	3.72	4.32	4.79	13.69	14.30	14.16	14.75	15.22
	6H	4.86	5.36	5.36	5.86	6.34	13.74	14.24	14.24	14.74	15.22
	8H	5.68	6.13	6.20	6.65	7.14	13.79	14.24	14.32	14.76	15.25
	12H	6.64	7.04	7.15	7.53	8.11	13.91	14.31	14.42	14.80	15.38
12H	4H	3.44	3.98	3.93	4.47	4.94	13.65	14.19	14.13	14.67	15.15
	6H	5.20	5.65	5.72	6.17	6.66	13.70	14.16	14.23	14.67	15.16
	8H	6.21	6.61	6.73	7.11	7.68	13.81	14.21	14.32	14.70	15.27