

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: P1060478

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060478  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)  
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-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

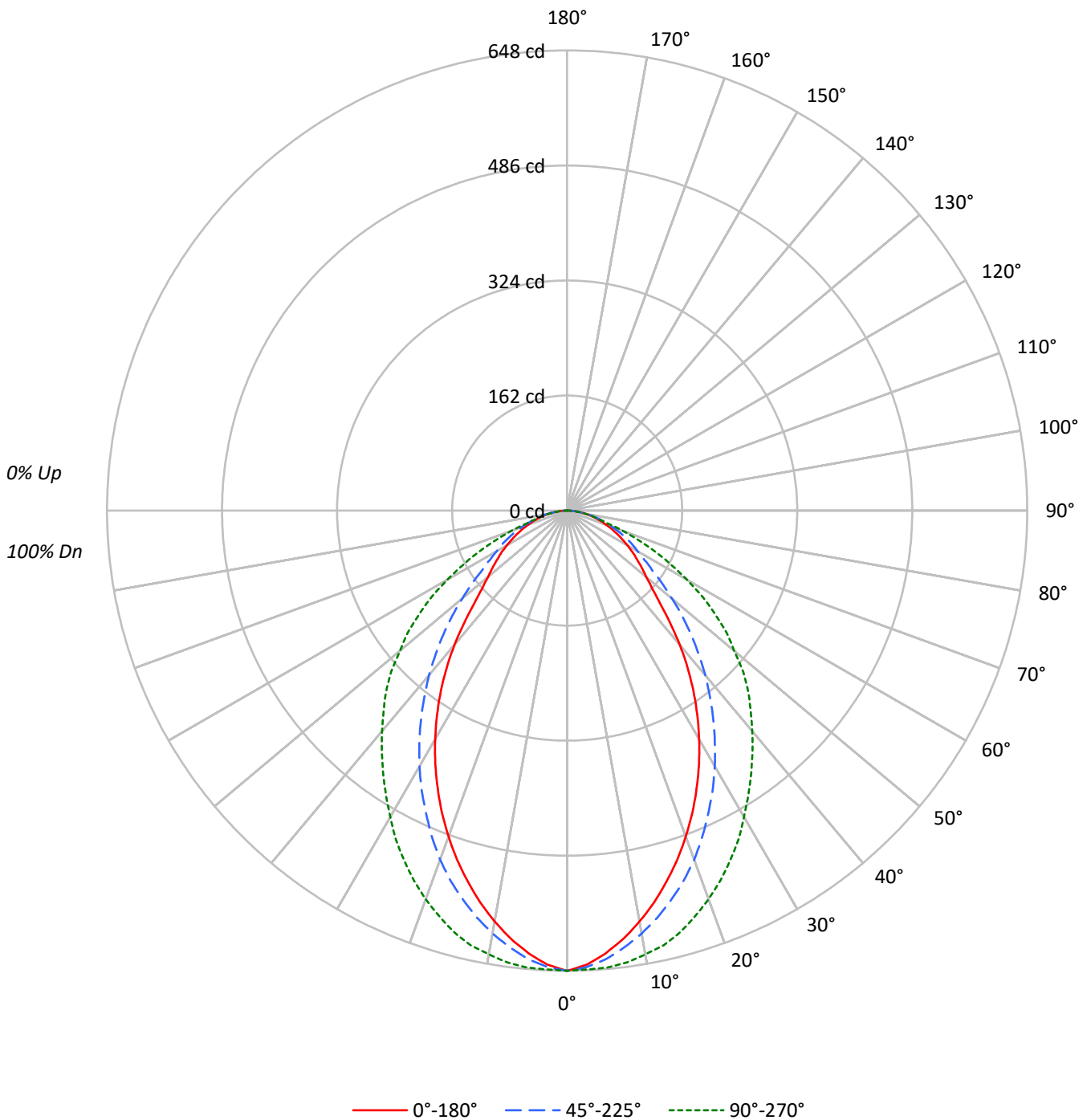
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1179.9 lumens  
Efficiency: N/A  
Efficacy: 60.2 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1  
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	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31

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

	0°	45°	90°
0°	5581	5581	5581
5°	5408	5479	5584
10°	5138	5287	5548
15°	4820	5057	5481
20°	4476	4794	5335
25°	4099	4467	5163
30°	3695	4133	4951
35°	3257	3771	4748
40°	2772	3398	4558
45°	2250	3003	4393
50°	1948	2584	4113
55°	1805	2193	3815
60°	1684	1977	3346
65°	1577	1854	2781
70°	1470	1710	2105
75°	1401	1584	1514
80°	1314	1448	1279
85°	1205	1344	1008

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4393 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.8	5.1
10°-20°	160.8	13.6
20°-30°	219.6	18.6
30°-40°	230.1	19.5
40°-50°	199.1	16.9
50°-60°	149.6	12.7
60°-70°	96.5	8.2
70°-80°	49.5	4.2
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°	440.3	37.3
0°-40°	670.3	56.8
0°-60°	1019.1	86.4
0°-90°	1179.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1179.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	648	648	648	648	648	
5°	626	635	634	638	646	59
15°	541	554	567	593	615	152
25°	431	448	470	507	543	198
35°	310	327	359	406	452	193
45°	185	204	247	307	361	146
55°	120	124	146	208	254	108
65°	77	79	91	110	136	77
75°	42	47	48	47	46	45
85°	12	14	14	13	10	14
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	648.1	648.1	648.1	648.1	648.1
2.5°	639.9	648.1	643.3	644.7	646.7
5°	625.6	635.2	633.8	638.5	646.0
7.5°	608.0	618.2	620.2	631.1	641.9
10°	587.6	599.1	604.6	620.9	634.5
12.5°	565.2	577.4	586.9	607.3	627.0
15°	540.7	554.3	567.2	593.0	614.8
17.5°	515.6	529.2	546.2	574.7	599.1
20°	488.4	503.4	523.1	553.0	582.2
22.5°	460.6	476.2	497.3	529.9	563.8
25°	431.4	447.7	470.1	506.8	543.4
27.5°	402.1	418.5	443.6	482.3	522.4
30°	371.6	388.6	415.7	457.9	497.9
32.5°	341.0	359.4	387.2	432.0	474.8
35°	309.8	327.4	358.7	406.2	451.7
37.5°	278.5	296.9	330.1	381.1	428.6
40°	246.6	265.6	302.3	356.0	405.5
42.5°	214.7	235.0	273.8	330.1	382.4
45°	184.8	203.8	246.6	307.0	360.7
47.5°	162.4	175.3	219.4	284.6	336.3
50°	145.4	152.2	192.9	260.2	307.0
52.5°	132.5	137.2	168.5	233.7	283.3
55°	120.2	124.3	146.1	208.5	254.1
57.5°	109.4	111.4	129.1	184.1	226.2
60°	97.8	99.9	114.8	157.6	194.3
62.5°	87.6	89.0	103.3	132.5	165.1
65°	77.4	78.8	91.0	110.0	136.5
67.5°	67.9	70.0	79.5	89.7	108.7
70°	58.4	62.5	67.9	72.7	83.6
72.5°	50.3	54.3	57.1	58.4	59.1
75°	42.1	46.9	47.6	46.9	45.5
77.5°	34.0	38.0	38.0	36.7	35.3
80°	26.5	29.9	29.2	27.9	25.8
82.5°	19.7	21.7	21.1	19.7	17.7
85°	12.2	14.3	13.6	12.9	10.2
87.5°	6.1	8.2	7.5	6.8	4.1
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	12.41	13.89	12.77	14.20	14.52	16.18	17.66	16.54	17.98	18.29
	3H	14.06	15.39	14.44	15.72	16.08	17.29	18.62	17.67	18.95	19.31
	4H	14.73	15.98	15.13	16.33	16.71	17.58	18.83	17.98	19.18	19.56
	6H	15.24	16.39	15.66	16.76	17.15	17.78	18.93	18.19	19.30	19.69
	8H	15.43	16.52	15.85	16.91	17.31	17.83	18.93	18.26	19.32	19.72
	12H	15.55	16.60	15.98	16.98	17.41	17.86	18.91	18.29	19.29	19.72
4H	2H	13.19	14.43	13.59	14.78	15.16	16.34	17.58	16.74	17.93	18.31
	3H	15.05	16.08	15.46	16.48	16.88	17.65	18.68	18.06	19.08	19.49
	4H	15.86	16.79	16.29	17.20	17.64	18.06	18.99	18.49	19.40	19.84
	6H	16.51	17.31	16.96	17.76	18.22	18.37	19.18	18.83	19.63	20.09
	8H	16.73	17.49	17.20	17.93	18.40	18.47	19.22	18.93	19.67	20.13
	12H	16.90	17.58	17.39	18.06	18.53	18.53	19.20	19.01	19.68	20.15
8H	4H	16.21	16.96	16.67	17.41	17.87	18.19	18.95	18.66	19.39	19.86
	6H	17.00	17.62	17.50	18.12	18.59	18.60	19.23	19.10	19.72	20.20
	8H	17.32	17.88	17.84	18.39	18.88	18.75	19.31	19.27	19.82	20.31
	12H	17.59	18.08	18.10	18.57	19.14	18.88	19.37	19.39	19.87	20.43
12H	4H	16.24	16.91	16.72	17.39	17.86	18.20	18.87	18.68	19.35	19.82
	6H	17.06	17.62	17.58	18.13	18.62	18.63	19.19	19.14	19.70	20.18
	8H	17.45	17.94	17.96	18.44	19.00	18.83	19.32	19.34	19.81	20.38