

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: P1060871

Luminaire Tested: S124RDR-H575D830-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060871  
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-H575D830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

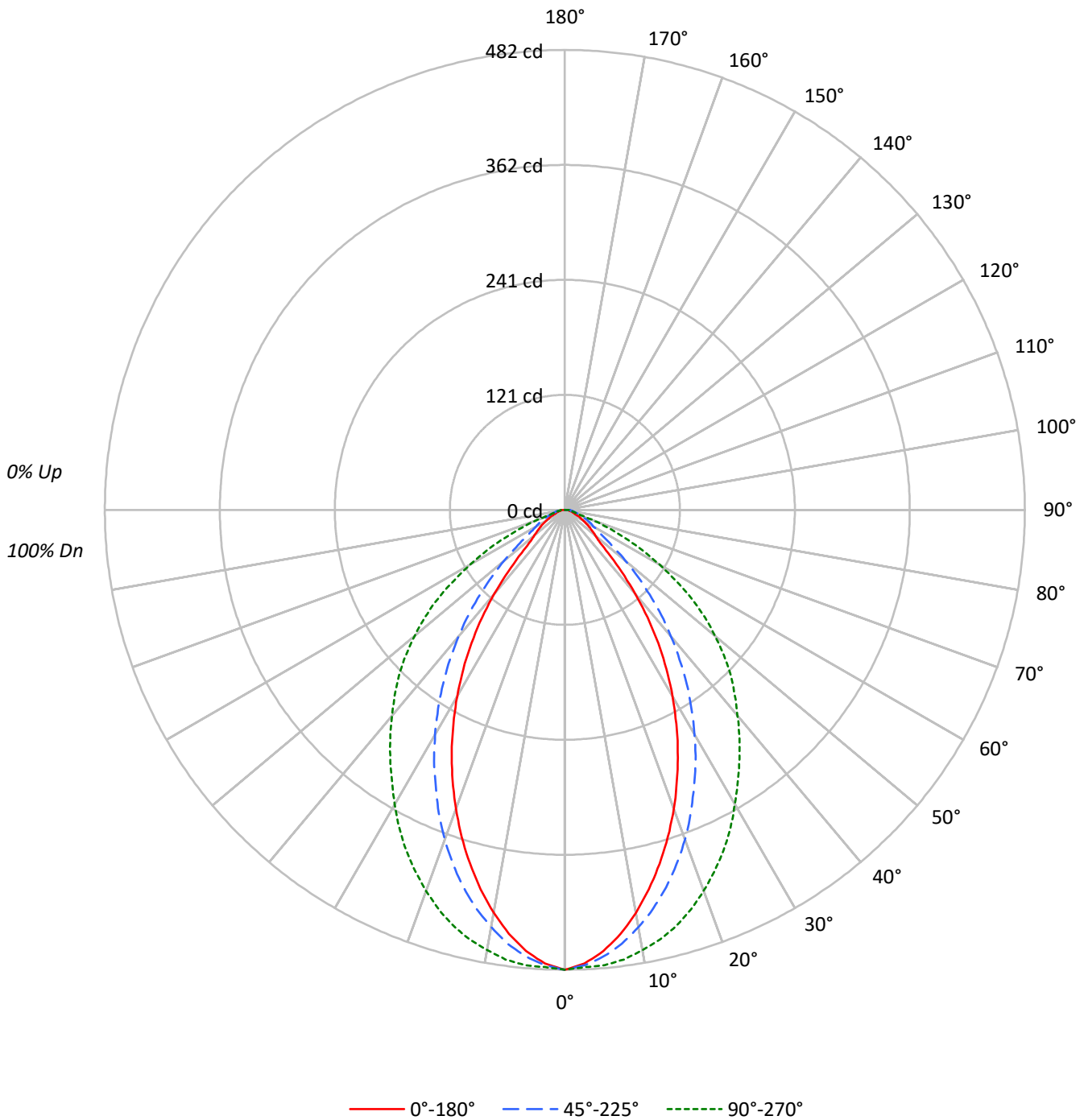
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 677.8 lumens  
Efficiency: N/A  
Efficacy: 39.0 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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	73	67	77	71	67	75	70	66	73	68	65	63				63
5	84	73	66	61	82	72	65	60	70	64	60	69	63	59	67	62	59	57				57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51				51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47				47
8	69	58	50	45	68	57	50	45	56	50	45	55	49	45	54	48	45	43				43
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	36				36

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

	0°	45°	90°
0°	4151	4151	4151
5°	4013	4061	4140
10°	3749	3882	4097
15°	3422	3652	4024
20°	3057	3372	3895
25°	2663	3041	3741
30°	2244	2702	3543
35°	1792	2340	3352
40°	1289	1944	3164
45°	777	1531	2995
50°	559	1109	2752
55°	470	746	2440
60°	381	591	1965
65°	300	538	1412
70°	262	448	755
75°	246	409	366
80°	243	426	332
85°	366	603	425

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2995 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.3	6.5
10°-20°	115.9	17.1
20°-30°	150.4	22.2
30°-40°	144.6	21.3
40°-50°	107.3	15.8
50°-60°	65.7	9.7
60°-70°	31.9	4.7
70°-80°	12.2	1.8
80°-90°	5.4	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°	310.6	45.8
0°-40°	455.2	67.2
0°-60°	628.2	92.7
0°-90°	677.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	677.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	482	482	482	482	482	
5°	464	471	470	474	479	43
15°	384	395	410	434	451	107
25°	280	294	320	361	394	128
35°	170	186	223	275	319	106
45°	64	80	126	192	246	53
55°	31	32	50	112	162	28
65°	15	16	26	42	69	15
75°	7	12	12	11	11	8
85°	4	6	6	6	4	4
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°	475.9	481.4	477.7	479.0	479.6
5°	464.2	471.0	469.8	474.1	479.0
7.5°	448.3	456.3	458.7	467.3	475.3
10°	428.7	438.5	444.0	458.1	468.5
12.5°	407.2	417.6	428.1	447.1	461.2
15°	383.9	394.9	409.7	434.2	451.4
17.5°	359.4	371.6	389.4	418.9	439.1
20°	333.6	346.5	368.0	400.5	425.0
22.5°	307.2	320.7	344.7	380.8	409.7
25°	280.3	294.4	320.1	361.2	393.7
27.5°	252.7	267.4	296.8	340.4	375.9
30°	225.7	239.8	271.7	318.9	356.3
32.5°	198.1	212.8	247.1	296.8	337.3
35°	170.5	185.8	222.6	275.4	318.9
37.5°	142.3	158.8	197.5	254.5	300.5
40°	114.7	130.6	172.9	233.0	281.5
42.5°	87.7	104.9	149.6	211.6	263.7
45°	63.8	79.7	125.7	192.0	245.9
47.5°	47.8	57.6	103.6	173.6	226.3
50°	41.7	43.5	82.8	153.3	205.4
52.5°	36.2	37.4	64.4	131.2	184.6
55°	31.3	32.5	49.7	112.2	162.5
57.5°	26.4	27.6	39.9	93.8	137.4
60°	22.1	23.3	34.3	74.8	114.1
62.5°	18.4	19.0	30.7	57.0	91.4
65°	14.7	15.9	26.4	41.7	69.3
67.5°	12.3	13.5	21.5	28.8	48.4
70°	10.4	13.5	17.8	20.2	30.0
72.5°	8.6	12.3	14.7	14.1	14.1
75°	7.4	11.7	12.3	11.0	11.0
77.5°	6.1	10.4	9.8	9.2	8.6
80°	4.9	8.6	8.6	7.4	6.7
82.5°	4.3	6.7	6.7	6.7	5.5
85°	3.7	6.1	6.1	5.5	4.3
87.5°	2.5	4.9	5.5	4.9	3.1
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	4.76	6.10	5.13	6.41	6.73	13.86	15.20	14.22	15.51	15.82
	3H	5.81	6.99	6.19	7.32	7.69	14.36	15.54	14.74	15.87	16.24
	4H	6.32	7.43	6.73	7.78	8.16	14.37	15.48	14.77	15.83	16.21
	6H	6.77	7.79	7.19	8.16	8.55	14.37	15.39	14.78	15.76	16.15
	8H	6.96	7.93	7.39	8.32	8.72	14.37	15.33	14.79	15.72	16.12
	12H	7.18	8.10	7.61	8.48	8.91	14.36	15.29	14.80	15.67	16.10
4H	2H	5.86	6.96	6.26	7.31	7.70	13.75	14.85	14.15	15.20	15.59
	3H	7.13	8.03	7.54	8.44	8.84	14.32	15.23	14.74	15.63	16.03
	4H	7.84	8.65	8.27	9.07	9.51	14.37	15.18	14.80	15.60	16.04
	6H	8.46	9.16	8.93	9.61	10.08	14.42	15.12	14.88	15.57	16.03
	8H	8.71	9.36	9.18	9.81	10.28	14.44	15.09	14.91	15.54	16.01
	12H	8.98	9.56	9.47	10.04	10.52	14.47	15.05	14.96	15.53	16.01
8H	4H	8.26	8.92	8.73	9.36	9.83	14.32	14.97	14.79	15.42	15.89
	6H	9.14	9.67	9.64	10.17	10.65	14.41	14.95	14.91	15.44	15.92
	8H	9.54	10.02	10.06	10.53	11.03	14.47	14.95	14.99	15.47	15.96
	12H	10.02	10.44	10.53	10.94	11.51	14.57	15.00	15.09	15.49	16.06
12H	4H	8.31	8.88	8.79	9.37	9.84	14.29	14.87	14.78	15.35	15.83
	6H	9.25	9.73	9.77	10.24	10.74	14.39	14.87	14.91	15.39	15.88
	8H	9.76	10.19	10.27	10.68	11.25	14.50	14.92	15.01	15.42	15.99