

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: P1060943

Luminaire Tested: S124RDR-H575D950-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060943  
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-H575D950-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: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

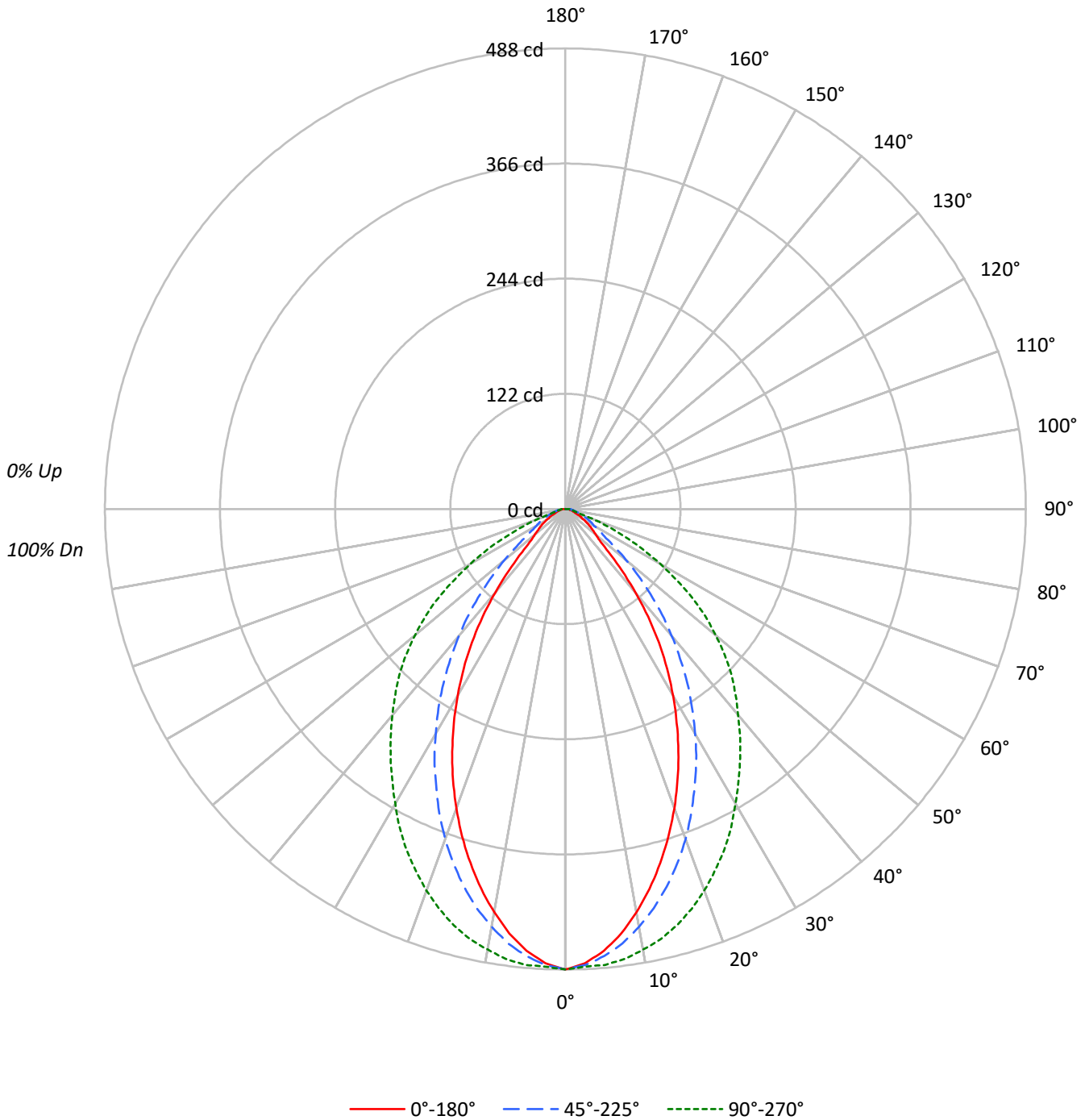
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 686.0 lumens  
Efficiency: N/A  
Efficacy: 39.4 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

TEST NUMBER: P1060943

CATALOG NUMBER: S124RDR-H575D950-X4F0-XX-UDD-SVL-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1060943

CATALOG NUMBER: S124RDR-H575D950-X4F0-XX-UDD-SVL-S

**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	72	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	49	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°	4201	4201	4201
5°	4062	4110	4191
10°	3794	3930	4146
15°	3464	3696	4072
20°	3095	3413	3942
25°	2696	3078	3786
30°	2271	2734	3586
35°	1814	2368	3393
40°	1305	1967	3203
45°	787	1549	3031
50°	565	1123	2785
55°	476	755	2470
60°	384	599	1989
65°	304	544	1428
70°	267	453	765
75°	246	413	373
80°	248	431	337
85°	366	613	425

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3031 cd/sqm



TEST NUMBER: P1060943

CATALOG NUMBER: S124RDR-H575D950-X4F0-XX-UDD-SVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.8	6.5
10°-20°	117.3	17.1
20°-30°	152.3	22.2
30°-40°	146.4	21.3
40°-50°	108.6	15.8
50°-60°	66.5	9.7
60°-70°	32.3	4.7
70°-80°	12.3	1.8
80°-90°	5.5	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°	314.4	45.8
0°-40°	460.8	67.2
0°-60°	635.9	92.7
0°-90°	686.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	686.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	488	488	488	488	488	
5°	470	477	476	480	485	44
15°	389	400	415	440	457	108
25°	284	298	324	366	398	130
35°	173	188	225	279	323	107
45°	65	81	127	194	249	54
55°	32	33	50	114	164	28
65°	15	16	27	42	70	15
75°	7	12	12	11	11	8
85°	4	6	6	6	4	4
90°	0	0	0	0	0	



TEST NUMBER: P1060943

CATALOG NUMBER: S124RDR-H575D950-X4F0-XX-UDD-SVL-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	487.9	487.9	487.9	487.9	487.9
2.5°	481.7	487.3	483.5	484.8	485.4
5°	469.9	476.7	475.5	479.8	484.8
7.5°	453.7	461.8	464.3	473.0	481.1
10°	433.9	443.8	449.4	463.7	474.2
12.5°	412.2	422.7	433.3	452.5	466.8
15°	388.6	399.7	414.6	439.5	456.8
17.5°	363.7	376.2	394.2	423.9	444.4
20°	337.7	350.7	372.4	405.3	430.2
22.5°	311.0	324.6	348.8	385.5	414.6
25°	283.7	297.9	324.0	365.6	398.5
27.5°	255.7	270.6	300.4	344.5	380.5
30°	228.4	242.7	275.0	322.8	360.6
32.5°	200.5	215.4	250.1	300.4	341.4
35°	172.6	188.1	225.3	278.7	322.8
37.5°	144.0	160.8	199.9	257.6	304.2
40°	116.1	132.2	175.0	235.9	284.9
42.5°	88.8	106.1	151.5	214.1	266.9
45°	64.6	80.7	127.2	194.3	248.9
47.5°	48.4	58.3	104.9	175.7	229.0
50°	42.2	44.1	83.8	155.2	207.9
52.5°	36.6	37.9	65.2	132.8	186.8
55°	31.7	32.9	50.3	113.6	164.5
57.5°	26.7	27.9	40.3	95.0	139.0
60°	22.3	23.6	34.8	75.7	115.5
62.5°	18.6	19.2	31.0	57.7	92.5
65°	14.9	16.1	26.7	42.2	70.1
67.5°	12.4	13.7	21.7	29.2	49.0
70°	10.6	13.7	18.0	20.5	30.4
72.5°	8.7	12.4	14.9	14.3	14.3
75°	7.4	11.8	12.4	11.2	11.2
77.5°	6.2	10.6	9.9	9.3	8.7
80°	5.0	8.7	8.7	7.4	6.8
82.5°	4.3	6.8	6.8	6.8	5.6
85°	3.7	6.2	6.2	5.6	4.3
87.5°	2.5	5.0	5.6	5.0	3.1
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060943  
 CATALOG NUMBER: S124RDR-H575D950-X4F0-XX-UDD-SVL-S

**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	4.79	6.13	5.16	6.45	6.76	13.90	15.24	14.27	15.55	15.87
	3H	5.85	7.03	6.23	7.36	7.73	14.40	15.59	14.78	15.92	16.28
	4H	6.36	7.46	6.76	7.82	8.20	14.42	15.52	14.82	15.87	16.26
	6H	6.81	7.83	7.23	8.20	8.59	14.41	15.43	14.83	15.80	16.20
	8H	7.00	7.96	7.43	8.35	8.76	14.41	15.37	14.84	15.77	16.17
	12H	7.21	8.13	7.64	8.51	8.94	14.41	15.33	14.84	15.71	16.14
4H	2H	5.89	7.00	6.29	7.35	7.73	13.79	14.90	14.19	15.25	15.63
	3H	7.17	8.07	7.58	8.48	8.88	14.37	15.27	14.78	15.68	16.08
	4H	7.87	8.68	8.31	9.10	9.54	14.41	15.22	14.85	15.64	16.09
	6H	8.51	9.20	8.97	9.65	10.12	14.47	15.17	14.93	15.61	16.08
	8H	8.75	9.40	9.22	9.85	10.32	14.48	15.14	14.95	15.58	16.05
	12H	9.02	9.60	9.51	10.08	10.55	14.52	15.09	15.00	15.58	16.05
8H	4H	8.30	8.95	8.77	9.40	9.87	14.36	15.02	14.83	15.46	15.93
	6H	9.18	9.71	9.68	10.21	10.69	14.46	14.99	14.96	15.49	15.97
	8H	9.58	10.06	10.10	10.58	11.07	14.52	15.00	15.04	15.51	16.00
	12H	10.05	10.48	10.57	10.97	11.55	14.62	15.04	15.13	15.54	16.11
12H	4H	8.34	8.92	8.83	9.40	9.87	14.34	14.91	14.82	15.40	15.87
	6H	9.29	9.77	9.81	10.28	10.78	14.44	14.92	14.96	15.43	15.92
	8H	9.80	10.23	10.32	10.72	11.29	14.54	14.97	15.05	15.46	16.03