

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: P1060909

Luminaire Tested: S124RDR-H575D927-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060909  
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: S124RDR-H575D927-X4F0-XX-UDD-WVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

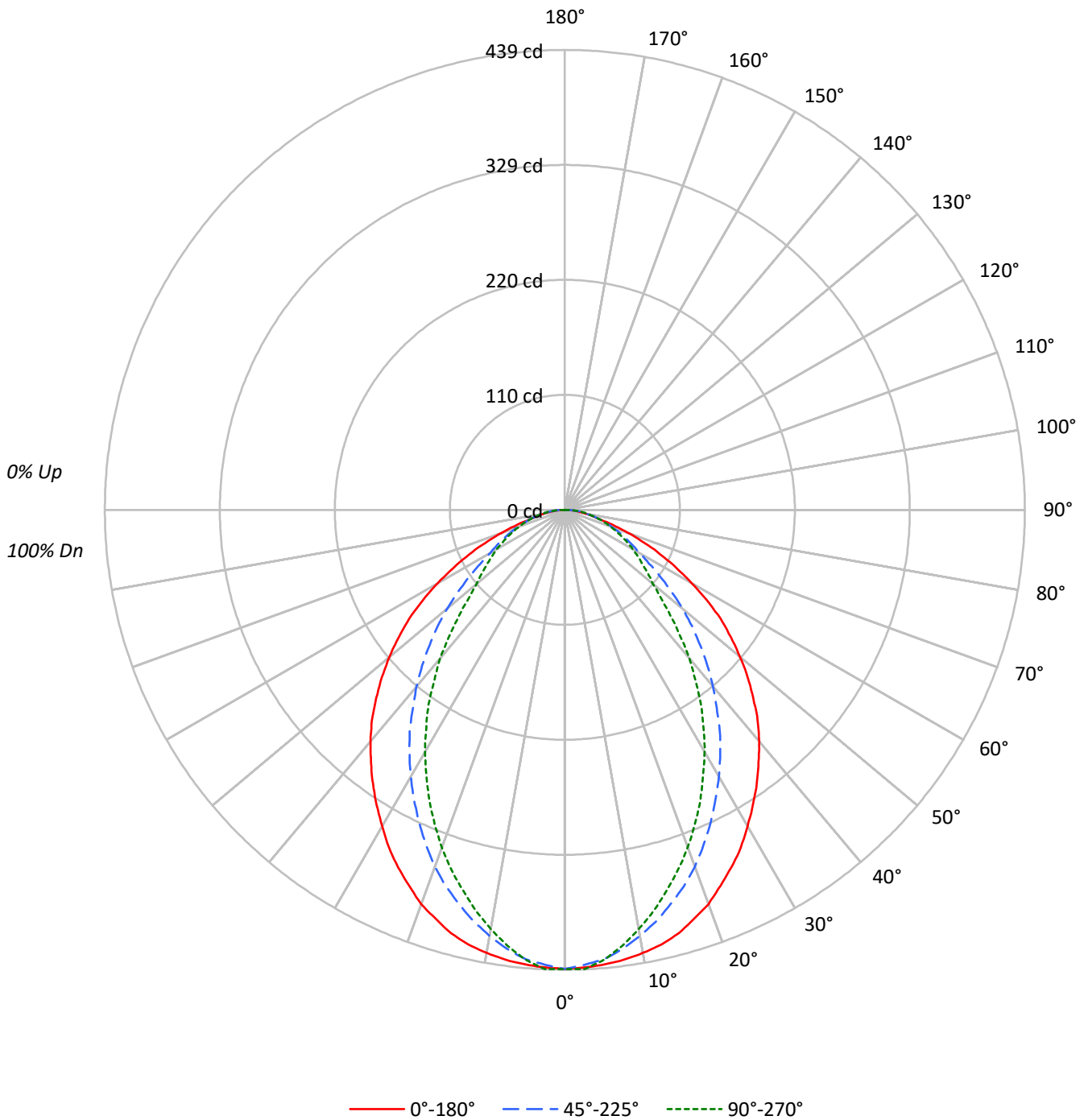
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 845.0 lumens  
Efficiency: N/A  
Efficacy: 48.6 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): 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: P1060909

CATALOG NUMBER: S124RDR-H575D927-X4F0-XX-UDD-WVL-B

### Luminous Intensity Polar Plot





TEST NUMBER: P1060909

CATALOG NUMBER: S124RDR-H575D927-X4F0-XX-UDD-WVL-B

**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	
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86	86	86	
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74	74	74	
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64	64	64	
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56	56	56	
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44	44	44	
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40	40	40	
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36	36	36	
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33	33	33	
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30	30	30	

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

	0°	45°	90°
0°	3773	3773	3773
5°	3766	3721	3726
10°	3756	3611	3553
15°	3733	3475	3351
20°	3671	3322	3143
25°	3576	3127	2906
30°	3466	2923	2653
35°	3357	2712	2382
40°	3242	2472	2078
45°	3098	2220	1737
50°	2924	1960	1470
55°	2722	1662	1360
60°	2413	1411	1287
65°	2056	1302	1216
70°	1609	1206	1153
75°	1098	1115	1115
80°	947	1046	1071
85°	810	1018	1116

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3098 cd/sqm



TEST NUMBER: P1060909

CATALOG NUMBER: S124RDR-H575D927-X4F0-XX-UDD-WVL-B

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.8	4.8
10°-20°	110.7	13.1
20°-30°	153.7	18.2
30°-40°	164.8	19.5
40°-50°	146.0	17.3
50°-60°	110.0	13.0
60°-70°	71.2	8.4
70°-80°	36.6	4.3
80°-90°	11.2	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°	305.2	36.1
0°-40°	470.0	55.6
0°-60°	726.0	85.9
0°-90°	845.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	845.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	438	438	438	438	438	
5°	436	436	430	431	431	41
15°	419	409	390	380	376	118
25°	376	356	329	312	306	173
35°	319	290	258	235	227	200
45°	254	221	182	154	143	196
55°	181	151	111	93	91	161
65°	101	81	64	60	60	100
75°	33	34	34	34	34	39
85°	8	9	10	11	11	9
90°	0	0	0	0	0	



TEST NUMBER: P1060909

CATALOG NUMBER: S124RDR-H575D927-X4F0-XX-UDD-WVL-B

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	438.2	438.2	438.2	438.2	438.2
2.5°	437.2	438.8	434.6	437.7	438.8
5°	435.7	436.2	430.5	431.0	431.0
7.5°	433.1	432.1	422.8	420.2	419.7
10°	429.5	426.4	413.0	407.9	406.3
12.5°	424.9	419.2	402.2	395.0	391.9
15°	418.7	409.4	389.8	380.1	375.9
17.5°	409.4	397.6	377.0	364.6	360.0
20°	400.6	384.7	362.5	347.1	343.0
22.5°	388.3	371.3	346.1	329.6	324.4
25°	376.4	356.4	329.1	311.6	305.9
27.5°	363.6	340.9	311.6	293.0	285.8
30°	348.6	324.4	294.0	274.5	266.8
32.5°	334.2	308.5	276.0	254.4	246.2
35°	319.3	290.4	258.0	234.8	226.6
37.5°	303.8	273.5	237.9	215.3	204.4
40°	288.4	256.5	219.9	194.1	184.9
42.5°	272.4	238.9	201.4	174.6	162.7
45°	254.4	221.4	182.3	154.0	142.6
47.5°	236.9	204.4	164.8	133.9	123.6
50°	218.3	186.4	146.3	116.4	109.7
52.5°	199.8	167.9	128.2	103.0	99.9
55°	181.3	150.9	110.7	93.2	90.6
57.5°	160.7	133.4	95.3	84.5	82.4
60°	140.1	114.3	81.9	76.2	74.7
62.5°	120.0	97.8	72.6	68.0	66.9
65°	100.9	81.4	63.9	60.3	59.7
67.5°	82.4	66.9	55.6	53.6	52.5
70°	63.9	53.6	47.9	46.9	45.8
72.5°	47.4	43.3	40.7	40.2	39.7
75°	33.0	34.5	33.5	33.5	33.5
77.5°	26.3	26.8	27.3	27.8	27.3
80°	19.1	20.6	21.1	22.1	21.6
82.5°	13.4	14.4	16.0	16.5	17.0
85°	8.2	8.8	10.3	11.3	11.3
87.5°	3.6	4.1	5.1	6.2	6.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060909  
 CATALOG NUMBER: S124RDR-H575D927-X4F0-XX-UDD-WVL-B

**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	15.05	16.55	15.42	16.87	17.18	11.62	13.12	11.99	13.43	13.75
	3H	16.26	17.60	16.64	17.93	18.29	13.32	14.66	13.69	14.99	15.35
	4H	16.57	17.83	16.97	18.17	18.55	13.99	15.25	14.39	15.60	15.98
	6H	16.77	17.93	17.18	18.30	18.69	14.54	15.70	14.95	16.07	16.46
	8H	16.83	17.93	17.25	18.32	18.73	14.76	15.87	15.19	16.26	16.66
	12H	16.86	17.92	17.29	18.30	18.73	14.93	15.99	15.36	16.37	16.80
4H	2H	15.20	16.46	15.60	16.80	17.18	12.28	13.54	12.68	13.89	14.27
	3H	16.60	17.64	17.01	18.04	18.45	14.19	15.24	14.60	15.64	16.04
	4H	17.03	17.97	17.46	18.38	18.82	14.99	15.93	15.43	16.35	16.79
	6H	17.35	18.17	17.81	18.61	19.07	15.68	16.50	16.14	16.94	17.40
	8H	17.45	18.21	17.91	18.66	19.12	15.95	16.72	16.42	17.16	17.63
	12H	17.52	18.20	18.00	18.68	19.15	16.18	16.86	16.66	17.34	17.81
8H	4H	17.15	17.92	17.62	18.36	18.83	15.31	16.07	15.77	16.52	16.99
	6H	17.57	18.21	18.07	18.70	19.18	16.14	16.77	16.63	17.26	17.74
	8H	17.73	18.30	18.25	18.81	19.30	16.50	17.07	17.02	17.58	18.07
	12H	17.86	18.36	18.37	18.85	19.42	16.83	17.34	17.34	17.83	18.39
12H	4H	17.16	17.84	17.64	18.32	18.79	15.34	16.02	15.82	16.50	16.97
	6H	17.60	18.17	18.11	18.68	19.17	16.20	16.76	16.71	17.27	17.76
	8H	17.81	18.31	18.32	18.80	19.37	16.63	17.13	17.14	17.62	18.19