

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: P1060897

Luminaire Tested: S124RDR-H575D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060897
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D850-X4F0-XX-UDD-SVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

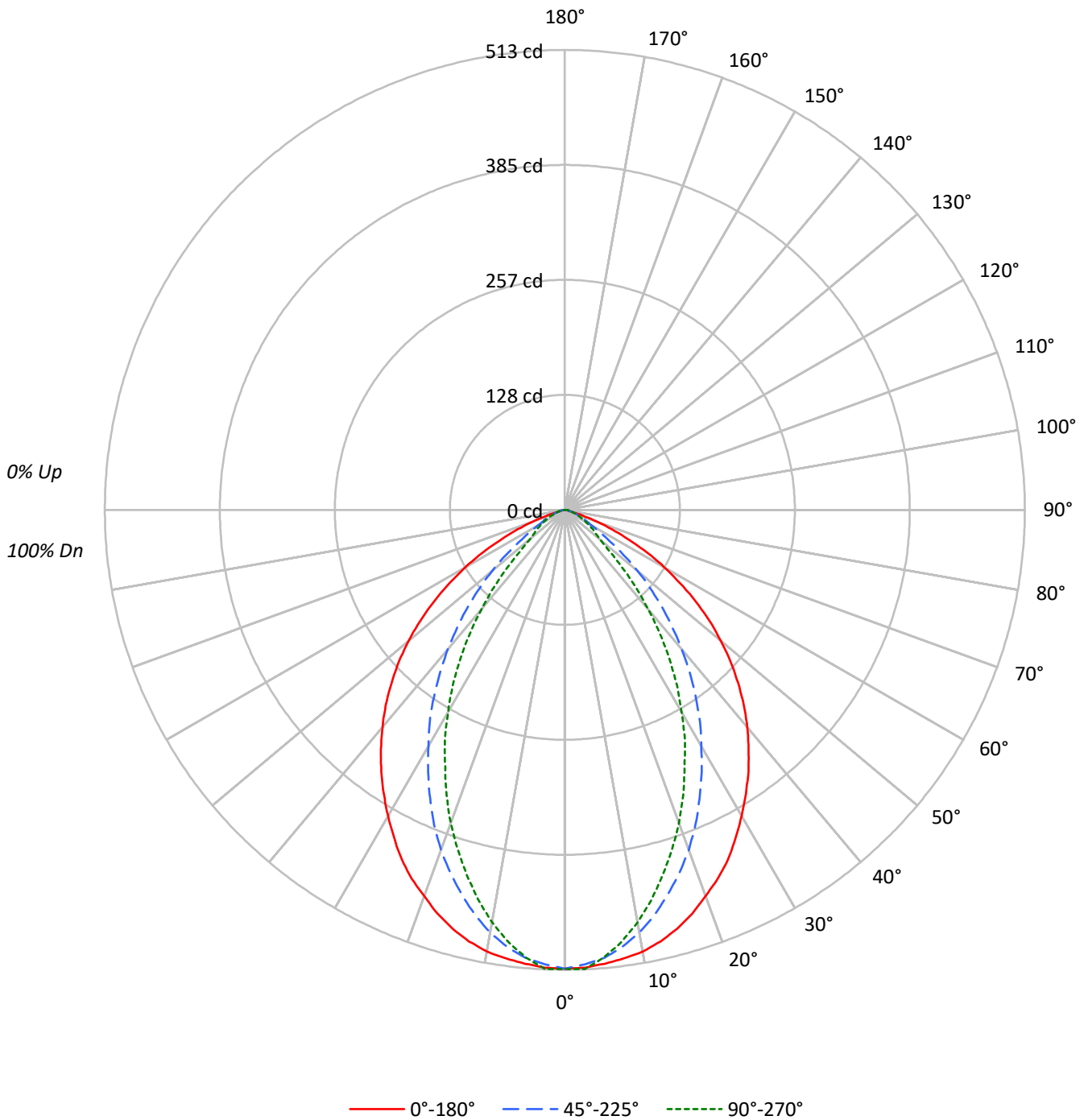
Lumens per Lamp: N/A
Luminaire Lumens: 754.7 lumens
Efficiency: N/A
Efficacy: 43.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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: P1060897

CATALOG NUMBER: S124RDR-H575D850-X4F0-XX-UDD-SVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1060897

CATALOG NUMBER: S124RDR-H575D850-X4F0-XX-UDD-SVL-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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100	
1	112	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90			90	
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80			80	
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71			71	
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63			63	
5	84	74	66	61	82	73	66	60	71	65	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	48	47			47	
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43			43	
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39			39	
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36			36	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4408	4408	4408
5°	4393	4338	4331
10°	4375	4186	4085
15°	4312	3959	3759
20°	4202	3699	3409
25°	4089	3377	3001
30°	3921	3025	2588
35°	3752	2675	2137
40°	3558	2277	1621
45°	3327	1861	1089
50°	3042	1411	677
55°	2674	931	573
60°	2210	572	472
65°	1602	440	381
70°	871	327	290
75°	193	240	263
80°	144	179	213
85°	138	138	217

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3327 cd/sqm



TEST NUMBER: P1060897

CATALOG NUMBER: S124RDR-H575D850-X4F0-XX-UDD-SVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.4	6.3
10°-20°	126.0	16.7
20°-30°	166.9	22.1
30°-40°	165.6	21.9
40°-50°	127.4	16.9
50°-60°	76.0	10.1
60°-70°	34.5	4.6
70°-80°	8.9	1.2
80°-90°	2.0	0.3
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°	340.2	45.1
0°-40°	505.8	67.0
0°-60°	709.2	94.0
0°-90°	754.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	754.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	512	512	512	512	512	
5°	508	509	502	502	501	48
15°	484	472	444	429	422	136
25°	430	399	355	326	316	198
35°	357	312	254	216	203	223
45°	273	220	153	107	89	210
55°	178	127	62	39	38	159
65°	79	47	22	19	19	79
75°	6	7	7	8	8	12
85°	1	1	1	2	2	2
90°	0	0	0	0	0	



TEST NUMBER: P1060897

CATALOG NUMBER: S124RDR-H575D850-X4F0-XX-UDD-SVL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	511.9	511.9	511.9	511.9	511.9
2.5°	511.1	511.9	507.5	511.1	512.6
5°	508.2	509.0	501.8	501.8	501.0
7.5°	504.6	503.2	491.7	487.3	485.9
10°	500.3	495.3	478.7	470.0	467.2
12.5°	493.1	485.2	462.8	450.6	445.5
15°	483.7	471.5	444.1	428.9	421.7
17.5°	472.2	457.1	424.6	405.2	397.2
20°	458.5	438.3	403.7	379.2	372.0
22.5°	445.5	420.3	380.6	352.5	344.6
25°	430.4	399.4	355.4	325.9	315.8
27.5°	412.4	379.2	330.2	299.9	289.8
30°	394.3	357.6	304.2	272.5	260.3
32.5°	375.6	335.2	280.4	244.4	232.9
35°	356.9	312.2	254.5	215.6	203.3
37.5°	336.7	289.1	228.5	188.2	174.5
40°	316.5	266.7	202.6	161.5	144.2
42.5°	295.6	243.7	177.3	134.1	116.8
45°	273.2	219.9	152.8	106.7	89.4
47.5°	250.9	197.5	128.3	80.0	64.2
50°	227.1	173.7	105.3	58.4	50.5
52.5°	203.3	150.7	82.2	45.4	43.3
55°	178.1	126.9	62.0	38.9	38.2
57.5°	152.1	105.3	44.7	33.9	32.4
60°	128.3	85.1	33.2	28.8	27.4
62.5°	103.8	64.2	27.4	23.8	22.3
65°	78.6	46.9	21.6	18.7	18.7
67.5°	57.0	31.7	17.3	15.1	14.4
70°	34.6	19.5	13.0	12.3	11.5
72.5°	17.3	11.5	10.1	9.4	9.4
75°	5.8	7.2	7.2	7.9	7.9
77.5°	4.3	5.0	5.0	5.8	5.8
80°	2.9	3.6	3.6	4.3	4.3
82.5°	2.2	2.2	2.9	2.9	3.6
85°	1.4	1.4	1.4	2.2	2.2
87.5°	0.7	0.7	0.7	1.4	1.4
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1060897
 CATALOG NUMBER: S124RDR-H575D850-X4F0-XX-UDD-SVL-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	14.27	15.61	14.64	15.92	16.24	5.82	7.16	6.19	7.47	7.78
	3H	14.78	15.96	15.16	16.29	16.66	6.64	7.82	7.02	8.15	8.51
	4H	14.75	15.85	15.15	16.20	16.58	6.92	8.02	7.32	8.37	8.75
	6H	14.69	15.69	15.10	16.06	16.46	7.09	8.10	7.51	8.47	8.86
	8H	14.65	15.60	15.08	15.99	16.40	7.16	8.11	7.59	8.50	8.91
	12H	14.61	15.52	15.04	15.90	16.33	7.20	8.11	7.64	8.50	8.93
4H	2H	14.12	15.21	14.52	15.57	15.95	6.26	7.36	6.67	7.71	8.09
	3H	14.67	15.56	15.08	15.97	16.37	7.23	8.12	7.64	8.52	8.93
	4H	14.64	15.44	15.07	15.85	16.30	7.59	8.39	8.02	8.80	9.25
	6H	14.59	15.27	15.05	15.72	16.19	7.84	8.53	8.30	8.97	9.44
	8H	14.54	15.18	15.01	15.63	16.10	7.93	8.57	8.40	9.02	9.49
	12H	14.50	15.07	14.99	15.55	16.02	8.01	8.57	8.49	9.05	9.53
8H	4H	14.53	15.17	15.00	15.62	16.09	7.68	8.32	8.15	8.76	9.23
	6H	14.47	14.99	14.97	15.49	15.97	7.99	8.51	8.49	9.01	9.49
	8H	14.42	14.89	14.94	15.40	15.90	8.12	8.59	8.64	9.10	9.60
	12H	14.39	14.80	14.90	15.30	15.87	8.26	8.67	8.77	9.17	9.74
12H	4H	14.49	15.05	14.97	15.53	16.01	7.65	8.22	8.14	8.70	9.17
	6H	14.41	14.88	14.93	15.40	15.89	7.97	8.44	8.49	8.95	9.44
	8H	14.39	14.80	14.90	15.29	15.87	8.14	8.55	8.65	9.05	9.62