

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: P1060899

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060899  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)  
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-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

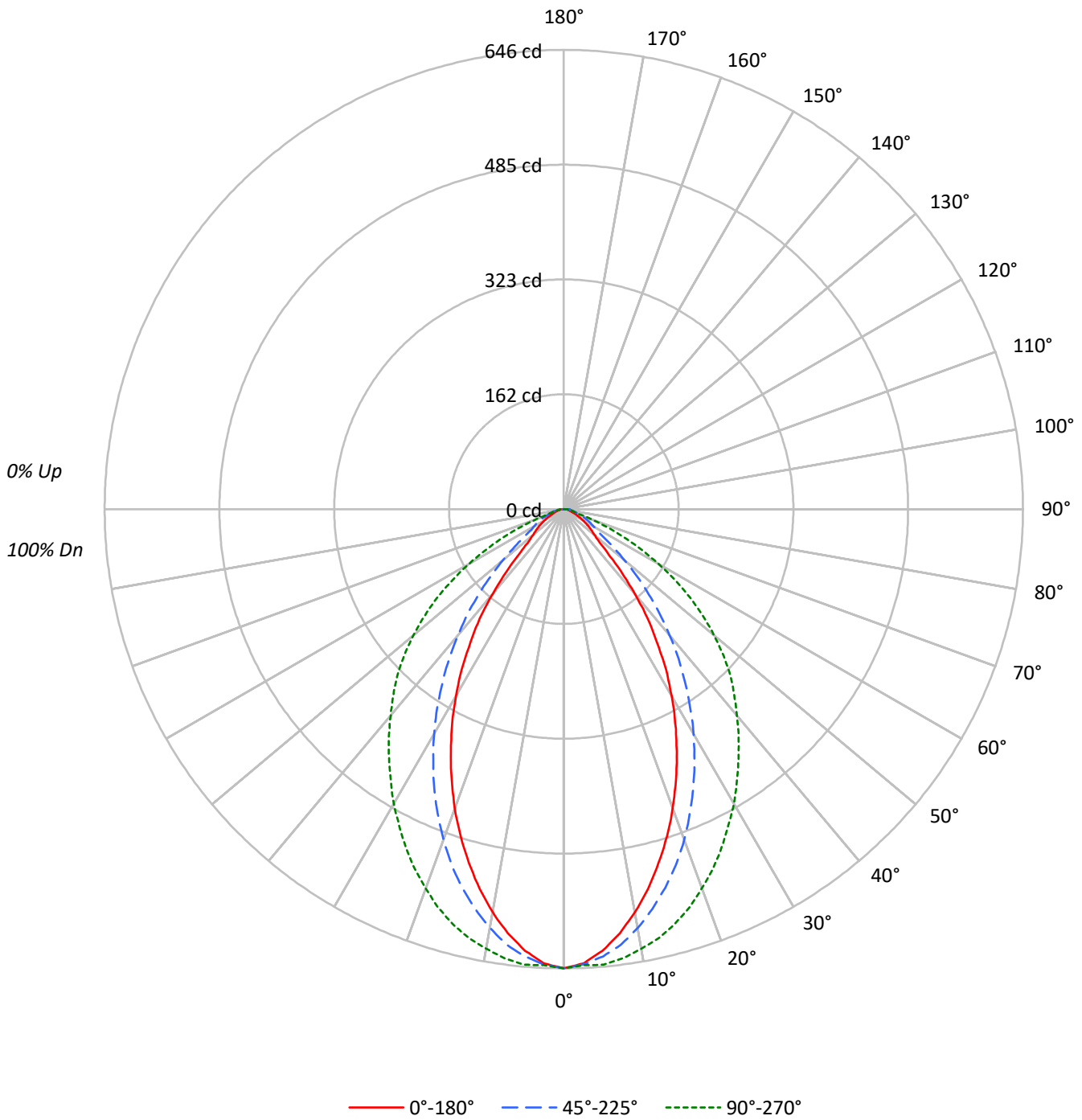
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 914.2 lumens  
Efficiency: N/A  
Efficacy: 52.5 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: P1060899

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

### Luminous Intensity Polar Plot





TEST NUMBER: P1060899

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

**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	104	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	66	75	70	66	73	68	65	63				63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57				57
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51				51
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47				47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43				43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36				36

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

	0°	45°	90°
0°	5562	5562	5562
5°	5390	5459	5558
10°	5036	5232	5490
15°	4594	4916	5385
20°	4107	4537	5205
25°	3573	4101	4992
30°	3014	3631	4758
35°	2398	3125	4507
40°	1745	2605	4259
45°	1055	2057	4035
50°	754	1488	3693
55°	640	1007	3261
60°	522	820	2635
65°	412	736	1897
70°	345	617	1000
75°	313	576	506
80°	322	570	501
85°	425	860	573

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4035 cd/sqm



TEST NUMBER: P1060899

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

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.5	6.5
10°-20°	155.8	17.0
20°-30°	202.1	22.1
30°-40°	194.6	21.3
40°-50°	144.7	15.8
50°-60°	89.0	9.7
60°-70°	43.7	4.8
70°-80°	17.0	1.9
80°-90°	7.8	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°	417.4	45.7
0°-40°	611.9	66.9
0°-60°	845.7	92.5
0°-90°	914.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	914.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	646	646	646	646	646	
5°	624	633	632	637	643	58
15°	515	532	551	585	604	144
25°	376	396	432	486	525	172
35°	228	250	297	372	429	143
45°	87	108	169	260	331	72
55°	43	44	67	153	217	38
65°	20	22	36	58	93	21
75°	9	17	17	16	15	10
85°	4	8	9	9	6	4
90°	0	0	0	0	0	



TEST NUMBER: P1060899

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

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	645.9	645.9	645.9	645.9	645.9
2.5°	639.4	646.6	640.9	641.6	642.3
5°	623.6	632.9	631.5	637.3	643.0
7.5°	601.9	612.7	617.8	629.3	637.3
10°	575.9	588.2	598.3	617.1	627.9
12.5°	547.1	561.5	575.9	601.2	617.8
15°	515.3	531.9	551.4	584.6	604.1
17.5°	482.8	499.4	524.7	562.9	587.5
20°	448.2	466.2	495.1	537.7	568.0
22.5°	412.1	431.6	463.3	511.7	547.8
25°	376.0	396.2	431.6	485.7	525.4
27.5°	339.9	359.4	397.7	458.3	501.6
30°	303.1	323.3	365.2	428.7	478.5
32.5°	267.8	286.5	331.3	400.5	453.2
35°	228.1	249.7	297.3	371.7	428.7
37.5°	194.1	213.6	264.9	342.8	404.2
40°	155.2	176.8	231.7	314.7	378.9
42.5°	119.1	140.7	199.9	286.5	355.1
45°	86.6	107.5	168.9	260.5	331.3
47.5°	65.7	77.9	138.6	235.3	304.6
50°	56.3	59.9	111.1	207.9	275.7
52.5°	49.8	51.2	86.6	180.4	246.8
55°	42.6	44.0	67.1	153.0	217.2
57.5°	36.1	36.8	54.1	127.0	185.5
60°	30.3	31.0	47.6	101.8	153.0
62.5°	25.3	26.0	42.6	78.7	122.0
65°	20.2	21.7	36.1	57.7	93.1
67.5°	16.6	19.5	30.3	40.4	65.0
70°	13.7	18.8	24.5	28.1	39.7
72.5°	11.5	17.3	20.9	20.2	19.5
75°	9.4	16.6	17.3	15.9	15.2
77.5°	7.9	14.4	14.4	13.0	12.3
80°	6.5	11.5	11.5	11.5	10.1
82.5°	5.8	9.4	10.1	10.1	7.9
85°	4.3	7.9	8.7	8.7	5.8
87.5°	2.9	7.2	7.9	7.2	4.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060899  
 CATALOG NUMBER: S124RDR-H575D850-X4F0-XX-UDD-SVL-W

**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	5.75	7.09	6.11	7.40	7.72	14.91	16.26	15.28	16.57	16.88
	3H	6.86	8.05	7.24	8.38	8.74	15.42	16.61	15.80	16.94	17.31
	4H	7.38	8.49	7.78	8.84	9.22	15.44	16.55	15.84	16.90	17.28
	6H	7.81	8.83	8.22	9.20	9.59	15.45	16.47	15.87	16.84	17.24
	8H	8.00	8.97	8.43	9.36	9.76	15.46	16.42	15.89	16.81	17.22
	12H	8.18	9.10	8.61	9.49	9.92	15.46	16.38	15.89	16.77	17.20
4H	2H	6.89	8.00	7.29	8.35	8.74	14.81	15.92	15.21	16.27	16.65
	3H	8.23	9.14	8.65	9.55	9.95	15.40	16.30	15.81	16.71	17.11
	4H	8.97	9.78	9.40	10.20	10.64	15.45	16.27	15.89	16.69	17.13
	6H	9.57	10.28	10.04	10.72	11.19	15.53	16.23	15.99	16.68	17.14
	8H	9.82	10.47	10.28	10.92	11.39	15.56	16.22	16.03	16.66	17.13
	12H	10.05	10.63	10.54	11.12	11.59	15.60	16.18	16.09	16.66	17.14
8H	4H	9.43	10.09	9.90	10.54	11.01	15.41	16.07	15.88	16.52	16.99
	6H	10.28	10.81	10.78	11.31	11.79	15.54	16.08	16.04	16.57	17.05
	8H	10.69	11.17	11.21	11.68	12.18	15.62	16.11	16.14	16.62	17.11
	12H	11.11	11.53	11.62	12.03	12.60	15.74	16.17	16.26	16.67	17.24
12H	4H	9.49	10.07	9.97	10.55	11.02	15.39	15.97	15.87	16.45	16.92
	6H	10.41	10.89	10.93	11.41	11.90	15.52	16.00	16.04	16.52	17.01
	8H	10.93	11.36	11.45	11.86	12.43	15.65	16.08	16.17	16.58	17.15