

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: P1058467

Luminaire Tested: S122RDR-H675D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058467  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H675D850-X4F0-XX-UDD-SVL-B  
Description: DEFINE 2 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: -

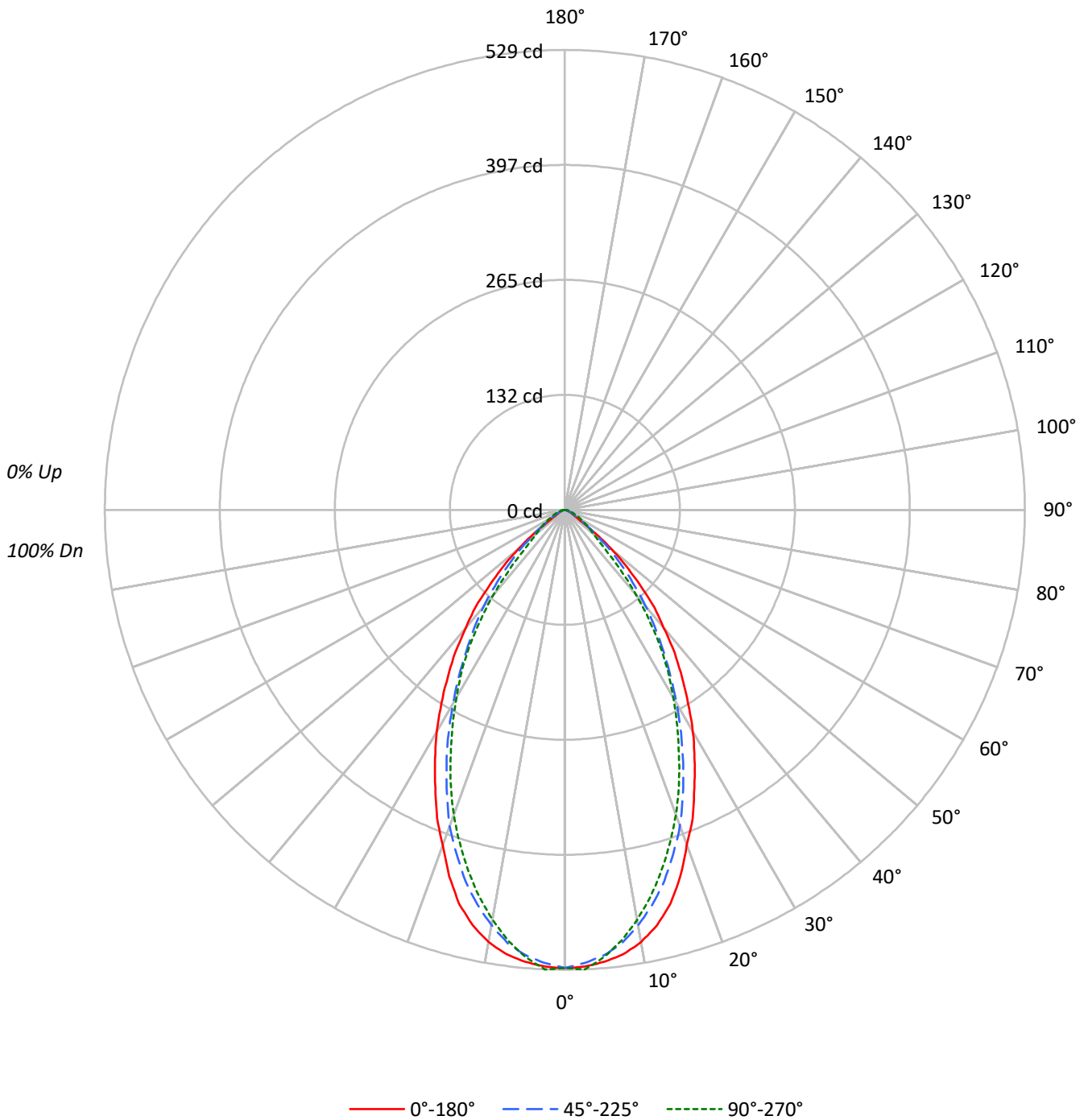
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 566.9 lumens  
Efficiency: N/A  
Efficacy: 24.1 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.5  
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: P1058467

CATALOG NUMBER: S122RDR-H675D850-X4F0-XX-UDD-SVL-B

### Luminous Intensity Polar Plot





TEST NUMBER: P1058467

CATALOG NUMBER: S122RDR-H675D850-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				
1	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92				
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84				
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76				
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70				
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64				
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59				
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54				
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50				
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47				
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44				

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

	0°	45°	90°
0°	9724	9724	9724
5°	9665	9528	9567
10°	9460	9088	8968
15°	8963	8440	8199
20°	8057	7601	7332
25°	7175	6554	6318
30°	6275	5470	5312
35°	5285	4431	4289
40°	4256	3498	3090
45°	3184	2526	1840
50°	1992	1631	1209
55°	676	881	981
60°	388	543	775
65°	275	367	598
70°	227	286	453
75°	150	228	378
80°	117	223	340
85°	0	0	233

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3184 cd/sqm



TEST NUMBER: P1058467

CATALOG NUMBER: S122RDR-H675D850-X4F0-XX-UDD-SVL-B

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.6	8.6
10°-20°	124.4	21.9
20°-30°	149.7	26.4
30°-40°	127.9	22.6
40°-50°	75.0	13.2
50°-60°	27.1	4.8
60°-70°	9.6	1.7
70°-80°	3.9	0.7
80°-90°	0.7	0.1
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°	322.7	56.9
0°-40°	450.6	79.5
0°-60°	552.7	97.5
0°-90°	566.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	566.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	527	527	527	527	527	
5°	522	523	514	516	516	49
15°	469	462	442	433	429	130
25°	352	338	322	317	310	162
35°	235	217	197	195	190	146
45°	122	109	97	81	70	94
55°	21	30	27	28	30	26
65°	6	7	8	12	14	7
75°	2	3	3	4	5	3
85°	0	0	0	1	1	0
90°	0	0	0	0	0	



TEST NUMBER: P1058467

CATALOG NUMBER: S122RDR-H675D850-X4F0-XX-UDD-SVL-B

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	527.0	527.0	527.0	527.0	527.0
2.5°	526.0	527.0	521.8	527.0	529.1
5°	521.8	522.8	514.4	516.5	516.5
7.5°	515.5	514.4	502.8	500.7	499.7
10°	504.9	501.8	485.0	481.8	478.6
12.5°	489.2	482.9	465.0	459.7	455.5
15°	469.2	461.8	441.8	433.4	429.2
17.5°	441.8	433.4	414.5	406.1	401.8
20°	410.3	401.8	387.1	377.7	373.4
22.5°	384.0	370.3	354.5	348.2	342.9
25°	352.4	337.7	321.9	316.6	310.3
27.5°	323.0	305.1	289.3	285.1	279.8
30°	294.5	275.6	256.7	256.7	249.3
32.5°	264.0	246.2	226.2	225.1	220.9
35°	234.6	216.7	196.7	194.6	190.4
37.5°	207.2	189.4	170.4	164.1	158.8
40°	176.7	161.0	145.2	134.7	128.3
42.5°	152.5	134.7	118.9	106.2	97.8
45°	122.0	109.4	96.8	81.0	70.5
47.5°	94.7	86.3	75.7	57.9	52.6
50°	69.4	65.2	56.8	43.1	42.1
52.5°	44.2	46.3	41.0	33.7	36.8
55°	21.0	29.5	27.4	28.4	30.5
57.5°	13.7	14.7	20.0	23.1	25.2
60°	10.5	10.5	14.7	18.9	21.0
62.5°	8.4	8.4	11.6	15.8	16.8
65°	6.3	7.4	8.4	11.6	13.7
67.5°	5.3	5.3	6.3	9.5	10.5
70°	4.2	4.2	5.3	7.4	8.4
72.5°	3.2	3.2	4.2	6.3	6.3
75°	2.1	3.2	3.2	4.2	5.3
77.5°	2.1	2.1	2.1	3.2	4.2
80°	1.1	1.1	2.1	2.1	3.2
82.5°	1.1	1.1	1.1	1.1	2.1
85°	0.0	0.0	0.0	1.1	1.1
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058467  
 CATALOG NUMBER: S122RDR-H675D850-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	3.78	4.94	4.14	5.25	5.57	7.17	8.33	7.54	8.64	8.96
	3H	4.30	5.33	4.69	5.66	6.02	7.90	8.93	8.28	9.26	9.62
	4H	4.44	5.39	4.85	5.74	6.13	8.12	9.07	8.53	9.42	9.81
	6H	4.52	5.39	4.94	5.76	6.15	8.27	9.14	8.69	9.51	9.91
	8H	4.53	5.35	4.96	5.74	6.15	8.31	9.13	8.74	9.52	9.92
	12H	4.49	5.28	4.93	5.66	6.09	8.31	9.09	8.74	9.47	9.90
4H	2H	4.09	5.03	4.49	5.39	5.77	7.14	8.08	7.54	8.44	8.82
	3H	4.75	5.52	5.17	5.93	6.33	8.02	8.79	8.43	9.19	9.60
	4H	5.00	5.68	5.44	6.11	6.55	8.30	8.98	8.74	9.41	9.85
	6H	5.12	5.71	5.59	6.16	6.63	8.53	9.12	9.00	9.56	10.04
	8H	5.15	5.69	5.62	6.14	6.62	8.58	9.12	9.05	9.57	10.05
	12H	5.11	5.59	5.60	6.08	6.55	8.60	9.08	9.09	9.56	10.04
8H	4H	5.11	5.66	5.58	6.10	6.58	8.23	8.78	8.71	9.23	9.70
	6H	5.28	5.72	5.79	6.22	6.71	8.50	8.94	9.00	9.44	9.92
	8H	5.34	5.73	5.87	6.25	6.75	8.56	8.96	9.09	9.48	9.97
	12H	5.32	5.66	5.84	6.16	6.74	8.63	8.98	9.15	9.47	10.05
12H	4H	5.10	5.57	5.58	6.06	6.54	8.19	8.66	8.67	9.15	9.62
	6H	5.28	5.68	5.81	6.20	6.69	8.45	8.84	8.98	9.36	9.86
	8H	5.37	5.71	5.88	6.21	6.79	8.54	8.88	9.06	9.38	9.96