

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058372

Luminaire Tested: S122RDRP-H485D835-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058372  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-H485D835-X4F0-XX-UDD-WVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

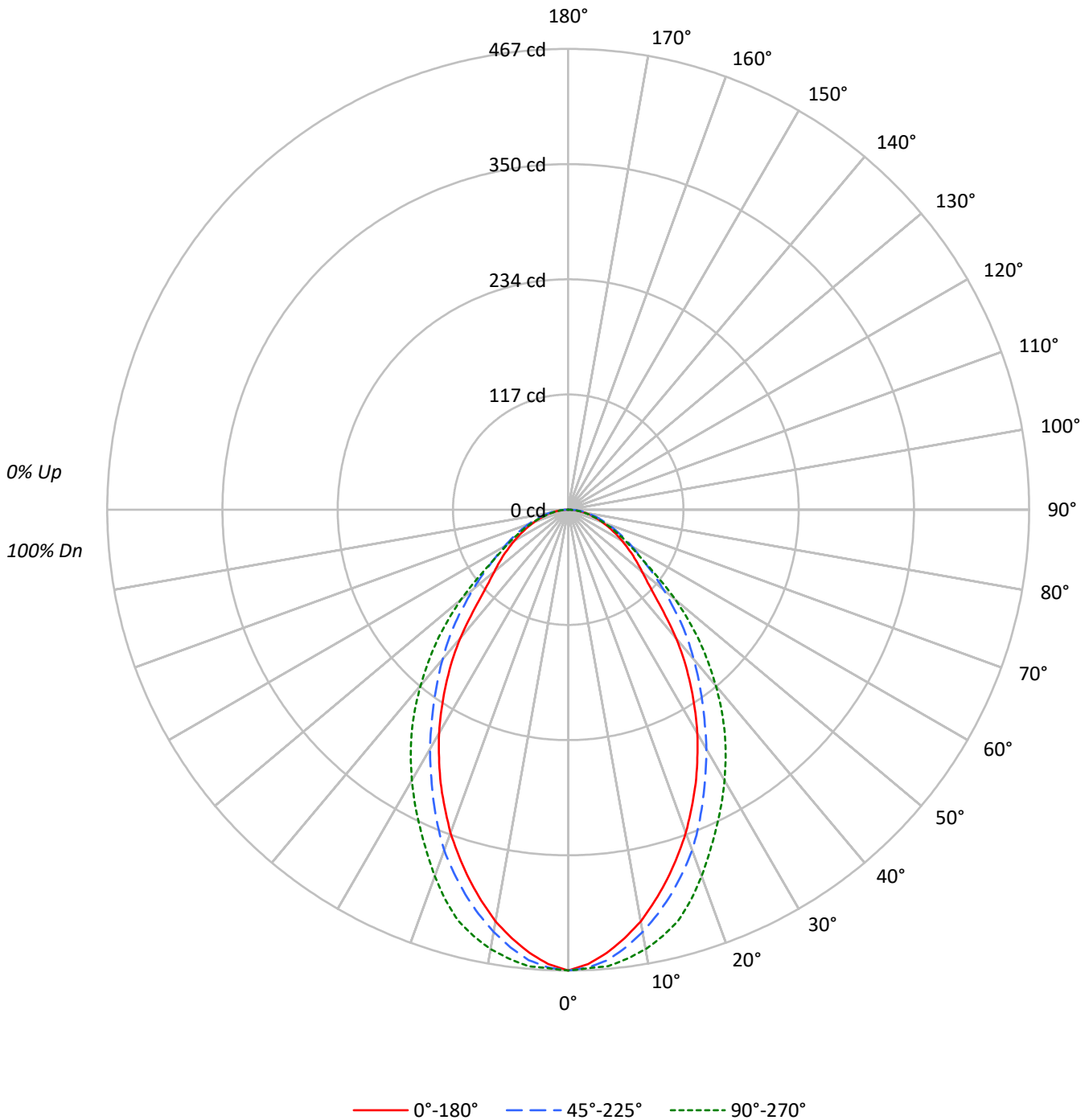
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 760.5 lumens  
Efficiency: N/A  
Efficacy: 43.7 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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: P1058372

CATALOG NUMBER: S122RDRP-H485D835-X4F0-XX-UDD-WVL-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1058372

CATALOG NUMBER: S122RDRP-H485D835-X4F0-XX-UDD-WVL-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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	79	84	80	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34	33

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

	0°	45°	90°
0°	8617	8617	8617
5°	8350	8487	8600
10°	7939	8141	8471
15°	7406	7704	8235
20°	6841	7215	7760
25°	6224	6582	7232
30°	5574	5964	6746
35°	4857	5330	6231
40°	4097	4767	5600
45°	3254	4209	4901
50°	2802	3620	4068
55°	2551	3098	3117
60°	2325	2753	2653
65°	2131	2484	2336
70°	1975	2304	2083
75°	1839	2174	1839
80°	1732	2093	1658
85°	1715	2160	1440

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4901 cd/sqm



TEST NUMBER: P1058372

CATALOG NUMBER: S122RDRP-H485D835-X4F0-XX-UDD-WVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.1	5.7
10°-20°	114.0	15.0
20°-30°	150.0	19.7
30°-40°	150.8	19.8
40°-50°	122.2	16.1
50°-60°	84.2	11.1
60°-70°	55.1	7.2
70°-80°	30.7	4.0
80°-90°	10.4	1.4
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°	307.1	40.4
0°-40°	457.9	60.2
0°-60°	664.3	87.3
0°-90°	760.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	760.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	467	467	467	467	467	
5°	451	460	458	460	464	42
15°	388	397	403	418	431	109
25°	306	314	323	338	355	140
35°	216	226	237	258	277	134
45°	125	139	161	176	188	99
55°	79	88	96	98	97	71
65°	49	58	57	54	54	49
75°	26	32	30	27	26	28
85°	8	11	10	9	7	9
90°	0	0	0	0	0	



TEST NUMBER: P1058372

CATALOG NUMBER: S122RDRP-H485D835-X4F0-XX-UDD-WVL-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	467.0	467.0	467.0	467.0	467.0
2.5°	460.9	469.1	464.3	464.3	465.0
5°	450.8	459.6	458.2	460.3	464.3
7.5°	437.9	447.4	447.4	453.5	458.9
10°	423.7	433.1	434.5	444.0	452.1
12.5°	406.0	415.5	419.6	431.8	442.6
15°	387.7	397.2	403.3	418.2	431.1
17.5°	368.1	377.6	385.7	401.3	414.2
20°	348.4	357.2	367.4	380.9	395.2
22.5°	326.7	336.2	345.7	358.6	374.8
25°	305.7	313.8	323.3	337.6	355.2
27.5°	283.3	292.2	301.0	317.9	336.2
30°	261.6	270.5	279.9	297.6	316.6
32.5°	238.6	248.1	257.6	277.2	296.9
35°	215.6	225.7	236.6	257.6	276.6
37.5°	193.2	204.0	216.9	238.6	254.9
40°	170.1	181.7	197.9	216.9	232.5
42.5°	145.7	160.0	179.6	195.9	210.1
45°	124.7	139.0	161.3	175.6	187.8
47.5°	109.1	120.7	142.3	154.5	164.7
50°	97.6	106.4	126.1	134.9	141.7
52.5°	88.1	96.9	110.5	116.6	118.6
55°	79.3	88.1	96.3	98.3	96.9
57.5°	70.5	80.0	84.7	82.7	82.7
60°	63.0	73.2	74.6	71.9	71.9
62.5°	55.6	65.8	65.8	62.4	62.4
65°	48.8	58.3	56.9	54.2	53.5
67.5°	42.7	51.5	49.5	46.8	46.1
70°	36.6	44.7	42.7	39.3	38.6
72.5°	31.2	38.6	35.9	33.2	31.9
75°	25.8	31.9	30.5	27.1	25.8
77.5°	21.0	25.8	24.4	21.7	20.3
80°	16.3	20.3	19.7	16.9	15.6
82.5°	12.2	15.6	14.9	12.9	10.8
85°	8.1	10.8	10.2	8.8	6.8
87.5°	4.1	7.5	6.8	6.1	3.4
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058372  
 CATALOG NUMBER: S122RDRP-H485D835-X4F0-XX-UDD-WVL-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	14.21	15.65	14.58	15.97	16.28	14.57	16.01	14.94	16.33	16.64
	3H	15.76	17.05	16.14	17.37	17.74	15.92	17.21	16.30	17.54	17.90
	4H	16.33	17.54	16.73	17.89	18.27	16.40	17.61	16.80	17.96	18.34
	6H	16.76	17.87	17.17	18.24	18.64	16.76	17.87	17.17	18.24	18.63
	8H	16.91	17.97	17.34	18.36	18.77	16.87	17.93	17.30	18.32	18.72
	12H	17.03	18.04	17.46	18.42	18.85	16.95	17.96	17.38	18.34	18.77
4H	2H	14.80	16.01	15.20	16.36	16.74	15.09	16.29	15.49	16.64	17.02
	3H	16.62	17.62	17.03	18.02	18.42	16.66	17.66	17.07	18.06	18.46
	4H	17.37	18.27	17.80	18.69	19.13	17.26	18.16	17.70	18.58	19.02
	6H	17.96	18.74	18.41	19.18	19.64	17.74	18.53	18.20	18.97	19.43
	8H	18.16	18.90	18.63	19.34	19.81	17.91	18.64	18.37	19.08	19.55
	12H	18.33	18.98	18.82	19.46	19.94	18.03	18.68	18.51	19.16	19.63
8H	4H	17.65	18.38	18.12	18.83	19.30	17.56	18.30	18.03	18.74	19.21
	6H	18.41	19.01	18.91	19.51	19.98	18.18	18.79	18.68	19.28	19.76
	8H	18.73	19.28	19.25	19.79	20.28	18.43	18.97	18.95	19.48	19.97
	12H	19.02	19.50	19.53	19.99	20.56	18.64	19.12	19.15	19.61	20.18
12H	4H	17.67	18.32	18.16	18.80	19.28	17.60	18.25	18.08	18.73	19.20
	6H	18.47	19.01	18.99	19.52	20.01	18.26	18.80	18.78	19.31	19.80
	8H	18.87	19.35	19.38	19.84	20.41	18.58	19.06	19.09	19.55	20.12