

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: P1057953

Luminaire Tested: S122RDRP-S485D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057953  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S485D830-X4F0-XX-UDD-BVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

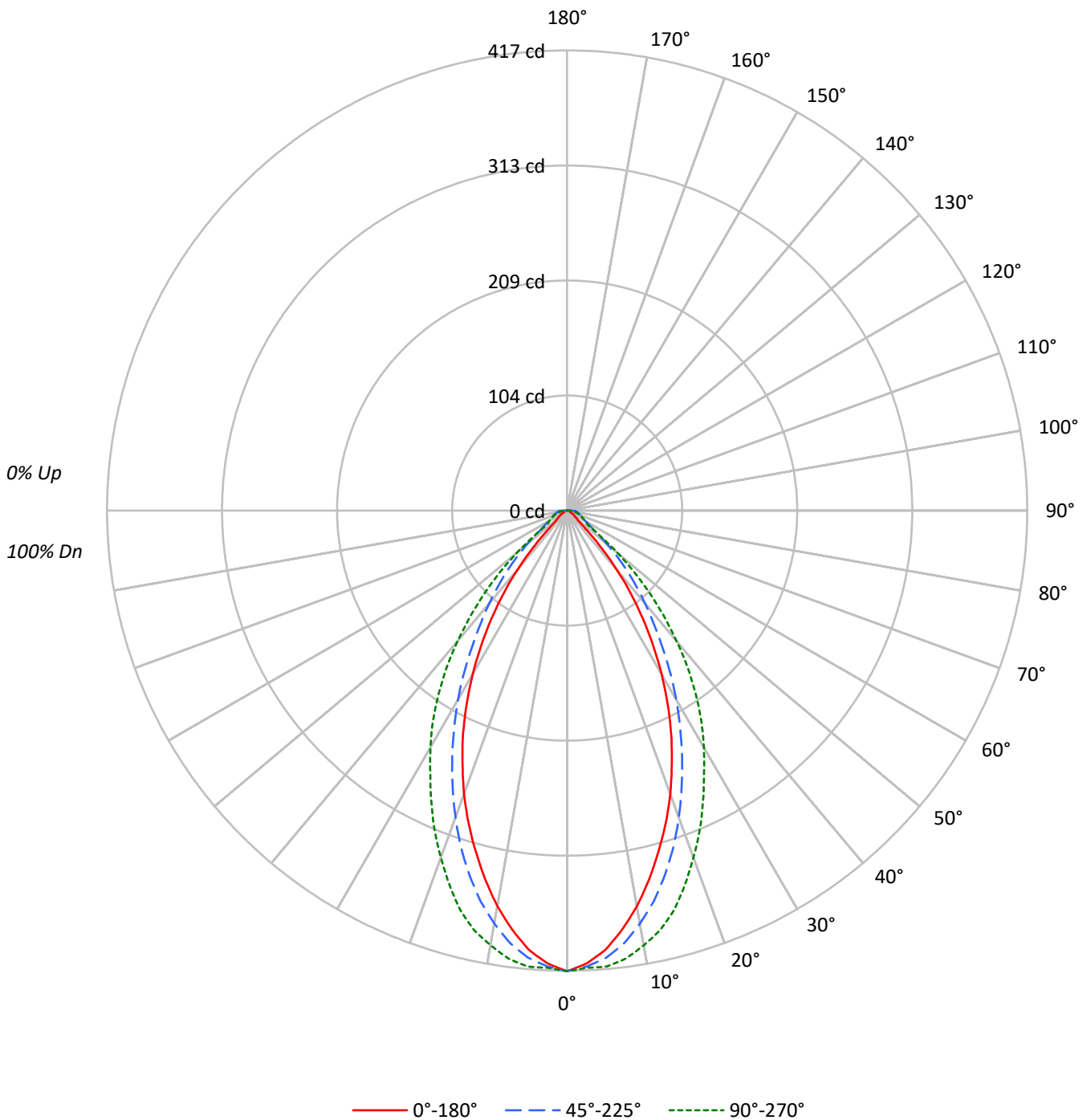
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 454.3 lumens  
Efficiency: N/A  
Efficacy: 23.2 lumens/watt  
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.6  
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: P1057953

CATALOG NUMBER: S122RDRP-S485D830-X4F0-XX-UDD-BVL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1057953

CATALOG NUMBER: S122RDRP-S485D830-X4F0-XX-UDD-BVL-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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42

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

	0°	45°	90°
0°	7702	7702	7702
5°	7398	7533	7681
10°	6820	7120	7495
15°	6111	6531	7158
20°	5365	5811	6570
25°	4542	5017	5929
30°	3644	4212	5280
35°	2692	3370	4573
40°	1689	2638	3717
45°	663	1986	2753
50°	327	1343	1688
55°	257	881	753
60°	196	716	690
65°	144	672	672
70°	178	685	685
75°	192	763	713
80°	287	999	776
85°	572	1694	1122

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 87.5°  
 Luminance: 3088 cd/sqm



TEST NUMBER: P1057953

CATALOG NUMBER: S122RDRP-S485D830-X4F0-XX-UDD-BVL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.1	8.4
10°-20°	96.4	21.2
20°-30°	115.3	25.4
30°-40°	97.0	21.4
40°-50°	55.2	12.2
50°-60°	21.8	4.8
60°-70°	13.7	3.0
70°-80°	10.2	2.2
80°-90°	6.5	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°	249.8	55.0
0°-40°	346.9	76.3
0°-60°	423.9	93.3
0°-90°	454.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	454.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	417	417	417	417	417	
5°	399	408	407	411	415	37
15°	320	331	342	362	375	89
25°	223	233	246	272	291	102
35°	120	130	150	182	203	74
45°	25	45	76	96	106	24
55°	8	17	27	28	23	7
65°	3	15	15	15	15	4
75°	3	11	11	10	10	3
85°	3	7	8	7	5	2
90°	0	0	0	0	0	



TEST NUMBER: P1057953

CATALOG NUMBER: S122RDRP-S485D830-X4F0-XX-UDD-BVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	417.4	417.4	417.4	417.4	417.4
2.5°	410.7	418.1	413.4	414.1	414.7
5°	399.4	408.1	406.7	411.4	414.7
7.5°	382.7	392.0	395.4	403.4	409.4
10°	364.0	374.7	380.0	392.7	400.0
12.5°	342.6	354.6	362.6	378.7	389.4
15°	319.9	331.3	341.9	362.0	374.7
17.5°	297.2	308.6	319.9	341.9	355.3
20°	273.2	283.8	295.9	319.2	334.6
22.5°	247.8	259.1	271.2	295.2	313.9
25°	223.1	233.1	246.4	271.8	291.2
27.5°	197.0	207.0	221.7	247.8	268.5
30°	171.0	181.0	197.7	224.4	247.8
32.5°	144.9	155.6	173.6	203.0	226.4
35°	119.5	130.2	149.6	181.7	203.0
37.5°	94.8	106.9	128.2	159.6	179.7
40°	70.1	84.2	109.5	137.6	154.3
42.5°	46.8	64.1	92.2	115.5	129.6
45°	25.4	44.7	76.1	95.5	105.5
47.5°	14.0	28.7	60.8	76.1	82.1
50°	11.4	20.0	46.8	58.1	58.8
52.5°	9.4	18.0	34.7	41.4	38.1
55°	8.0	17.4	27.4	28.1	23.4
57.5°	6.7	16.7	22.7	20.0	20.0
60°	5.3	16.7	19.4	18.0	18.7
62.5°	4.0	16.7	17.4	16.0	16.7
65°	3.3	15.4	15.4	14.7	15.4
67.5°	3.3	14.0	14.0	13.4	14.0
70°	3.3	13.4	12.7	12.7	12.7
72.5°	2.7	12.0	12.0	11.4	11.4
75°	2.7	10.7	10.7	10.0	10.0
77.5°	2.7	10.0	10.0	9.4	8.7
80°	2.7	8.7	9.4	8.7	7.3
82.5°	2.7	8.0	8.7	8.0	6.0
85°	2.7	7.3	8.0	7.3	5.3
87.5°	2.0	7.3	7.3	6.0	4.0
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1057953  
 CATALOG NUMBER: S122RDRP-S485D830-X4F0-XX-UDD-BVL-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	4.79	6.01	5.15	6.32	6.64	6.80	8.02	7.16	8.33	8.65
	3H	6.32	7.41	6.71	7.74	8.11	8.78	9.86	9.16	10.19	10.56
	4H	6.88	7.90	7.29	8.25	8.63	9.69	10.71	10.10	11.06	11.44
	6H	7.45	8.38	7.86	8.75	9.14	10.58	11.51	10.99	11.88	12.27
	8H	7.74	8.62	8.18	9.02	9.42	10.98	11.86	11.41	12.25	12.66
	12H	8.11	8.95	8.54	9.33	9.76	11.42	12.26	11.85	12.64	13.07
4H	2H	5.98	6.99	6.38	7.34	7.73	7.42	8.43	7.83	8.79	9.17
	3H	8.17	9.01	8.59	9.41	9.82	9.67	10.51	10.09	10.91	11.32
	4H	9.23	9.98	9.66	10.40	10.84	10.74	11.49	11.18	11.91	12.36
	6H	10.13	10.77	10.59	11.22	11.69	11.86	12.50	12.32	12.95	13.42
	8H	10.51	11.12	10.98	11.57	12.04	12.38	12.98	12.85	13.43	13.90
	12H	10.94	11.47	11.42	11.95	12.43	12.95	13.48	13.44	13.97	14.44
8H	4H	10.03	10.64	10.50	11.08	11.56	11.24	11.84	11.71	12.29	12.76
	6H	11.42	11.91	11.92	12.41	12.89	12.64	13.13	13.14	13.63	14.11
	8H	12.13	12.58	12.66	13.10	13.59	13.37	13.82	13.90	14.34	14.83
	12H	12.88	13.27	13.40	13.77	14.34	14.20	14.59	14.71	15.09	15.66
12H	4H	10.19	10.73	10.68	11.21	11.69	11.34	11.87	11.83	12.36	12.83
	6H	11.75	12.19	12.27	12.71	13.20	12.86	13.30	13.38	13.82	14.31
	8H	12.66	13.05	13.18	13.55	14.12	13.74	14.13	14.26	14.63	15.20