

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: P1057959

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057959  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S485D830-X4F0-XX-UDD-WVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

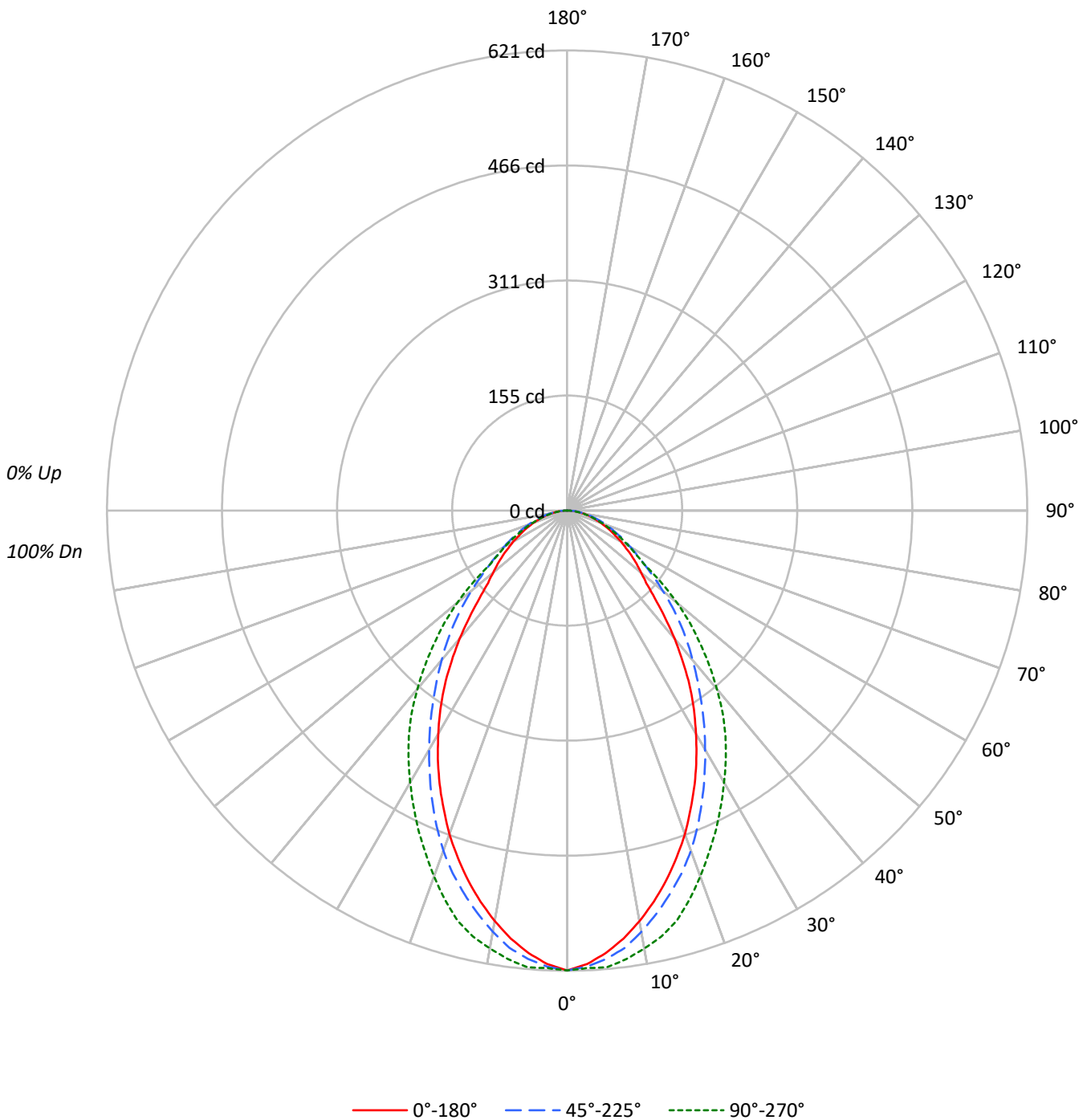
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1011.7 lumens  
Efficiency: N/A  
Efficacy: 51.6 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): 19.6  
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: P1057959

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

### Luminous Intensity Polar Plot





TEST NUMBER: P1057959

CATALOG NUMBER: S122RDRP-S485D830-X4F0-XX-UDD-WVL-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	110	106	103	100	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	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59
5	81	70	62	56	80	69	62	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	46	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	40	35	46	39	35	45	39	35	44	38	34	33

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

	0°	45°	90°
0°	11452	11452	11452
5°	11099	11247	11458
10°	10540	10815	11240
15°	9867	10236	10937
20°	9119	9593	10313
25°	8289	8777	9673
30°	7408	7935	9028
35°	6494	7109	8389
40°	5432	6350	7571
45°	4353	5624	6618
50°	3735	4846	5555
55°	3413	4121	4102
60°	3104	3646	3572
65°	2825	3262	3117
70°	2590	2989	2773
75°	2424	2759	2424
80°	2274	2550	2125
85°	2265	2689	1842

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6618 cd/sqm



TEST NUMBER: P1057959

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

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.3	5.7
10°-20°	151.7	15.0
20°-30°	200.0	19.8
30°-40°	201.4	19.9
40°-50°	163.9	16.2
50°-60°	111.8	11.0
60°-70°	72.6	7.2
70°-80°	39.9	3.9
80°-90°	13.0	1.3
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°	409.0	40.4
0°-40°	610.4	60.3
0°-60°	886.2	87.6
0°-90°	1011.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1011.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	621	621	621	621	621	
5°	599	611	607	613	619	56
15°	516	530	536	558	572	145
25°	407	420	431	450	475	187
35°	288	303	316	343	372	179
45°	167	188	216	234	254	131
55°	106	117	128	129	128	95
65°	65	77	75	71	71	64
75°	34	42	39	35	34	36
85°	11	14	13	10	9	12
90°	0	0	0	0	0	

TEST NUMBER: P1057959

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

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	620.6	620.6	620.6	620.6	620.6
2.5°	612.6	622.6	615.9	616.6	617.9
5°	599.2	610.6	607.2	612.6	618.6
7.5°	582.6	593.9	595.2	603.2	610.6
10°	562.5	575.2	577.2	589.2	599.9
12.5°	540.5	554.5	557.2	574.5	588.6
15°	516.5	529.8	535.8	557.9	572.5
17.5°	491.1	503.8	513.2	533.2	549.9
20°	464.4	476.4	488.5	506.5	525.2
22.5°	435.7	449.1	460.4	478.5	499.8
25°	407.1	420.4	431.1	450.4	475.1
27.5°	377.7	391.0	401.7	422.4	449.1
30°	347.7	361.7	372.4	395.7	423.7
32.5°	318.3	332.3	344.3	369.0	398.4
35°	288.3	303.0	315.6	343.0	372.4
37.5°	256.2	272.9	288.9	316.3	345.0
40°	225.5	244.2	263.6	288.9	314.3
42.5°	194.9	215.5	239.6	260.9	284.3
45°	166.8	187.5	215.5	234.2	253.6
47.5°	144.8	162.2	192.2	207.5	224.9
50°	130.1	142.1	168.8	180.8	193.5
52.5°	118.1	128.1	146.8	154.8	161.5
55°	106.1	116.8	128.1	128.8	127.5
57.5°	94.1	106.1	112.1	107.4	110.1
60°	84.1	96.1	98.8	94.1	96.8
62.5°	73.4	86.7	86.7	82.1	83.4
65°	64.7	76.7	74.7	70.7	71.4
67.5°	56.1	68.1	64.7	60.7	60.7
70°	48.0	59.4	55.4	51.4	51.4
72.5°	40.7	50.0	47.4	42.7	42.0
75°	34.0	42.0	38.7	34.7	34.0
77.5°	27.4	34.0	31.4	28.0	26.7
80°	21.4	27.4	24.0	21.4	20.0
82.5°	16.0	20.7	18.0	15.3	14.0
85°	10.7	14.0	12.7	10.0	8.7
87.5°	5.3	9.3	8.0	6.7	5.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1057959  
 CATALOG NUMBER: S122RDRP-S485D830-X4F0-XX-UDD-WVL-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	15.19	16.63	15.56	16.94	17.26	15.44	16.87	15.80	17.19	17.50
	3H	16.72	18.01	17.10	18.33	18.70	16.79	18.08	17.17	18.41	18.77
	4H	17.28	18.48	17.68	18.83	19.21	17.27	18.48	17.68	18.83	19.21
	6H	17.70	18.82	18.12	19.18	19.58	17.62	18.73	18.04	19.10	19.50
	8H	17.86	18.91	18.29	19.30	19.71	17.73	18.79	18.16	19.18	19.58
	12H	17.97	18.98	18.40	19.36	19.79	17.80	18.81	18.23	19.19	19.62
4H	2H	15.76	16.97	16.16	17.32	17.70	15.96	17.16	16.36	17.51	17.89
	3H	17.57	18.56	17.98	18.97	19.37	17.53	18.53	17.95	18.93	19.34
	4H	18.31	19.20	18.74	19.62	20.06	18.13	19.03	18.56	19.44	19.88
	6H	18.89	19.67	19.35	20.12	20.58	18.60	19.38	19.06	19.82	20.28
	8H	19.10	19.83	19.57	20.28	20.75	18.75	19.48	19.21	19.92	20.39
	12H	19.27	19.92	19.75	20.40	20.87	18.86	19.50	19.34	19.98	20.46
8H	4H	18.57	19.30	19.04	19.75	20.21	18.42	19.15	18.88	19.59	20.06
	6H	19.33	19.93	19.83	20.42	20.90	19.01	19.61	19.51	20.10	20.58
	8H	19.65	20.19	20.17	20.71	21.20	19.23	19.77	19.75	20.28	20.77
	12H	19.94	20.41	20.45	20.91	21.47	19.41	19.89	19.93	20.38	20.95
12H	4H	18.59	19.24	19.07	19.72	20.19	18.45	19.10	18.94	19.58	20.05
	6H	19.37	19.91	19.89	20.43	20.92	19.08	19.62	19.59	20.13	20.62
	8H	19.77	20.25	20.28	20.74	21.31	19.36	19.84	19.87	20.33	20.90