

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: P1058057

Luminaire Tested: S122RDRP-S675D840-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058057  
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-S675D840-X4F0-XX-UDD-WVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

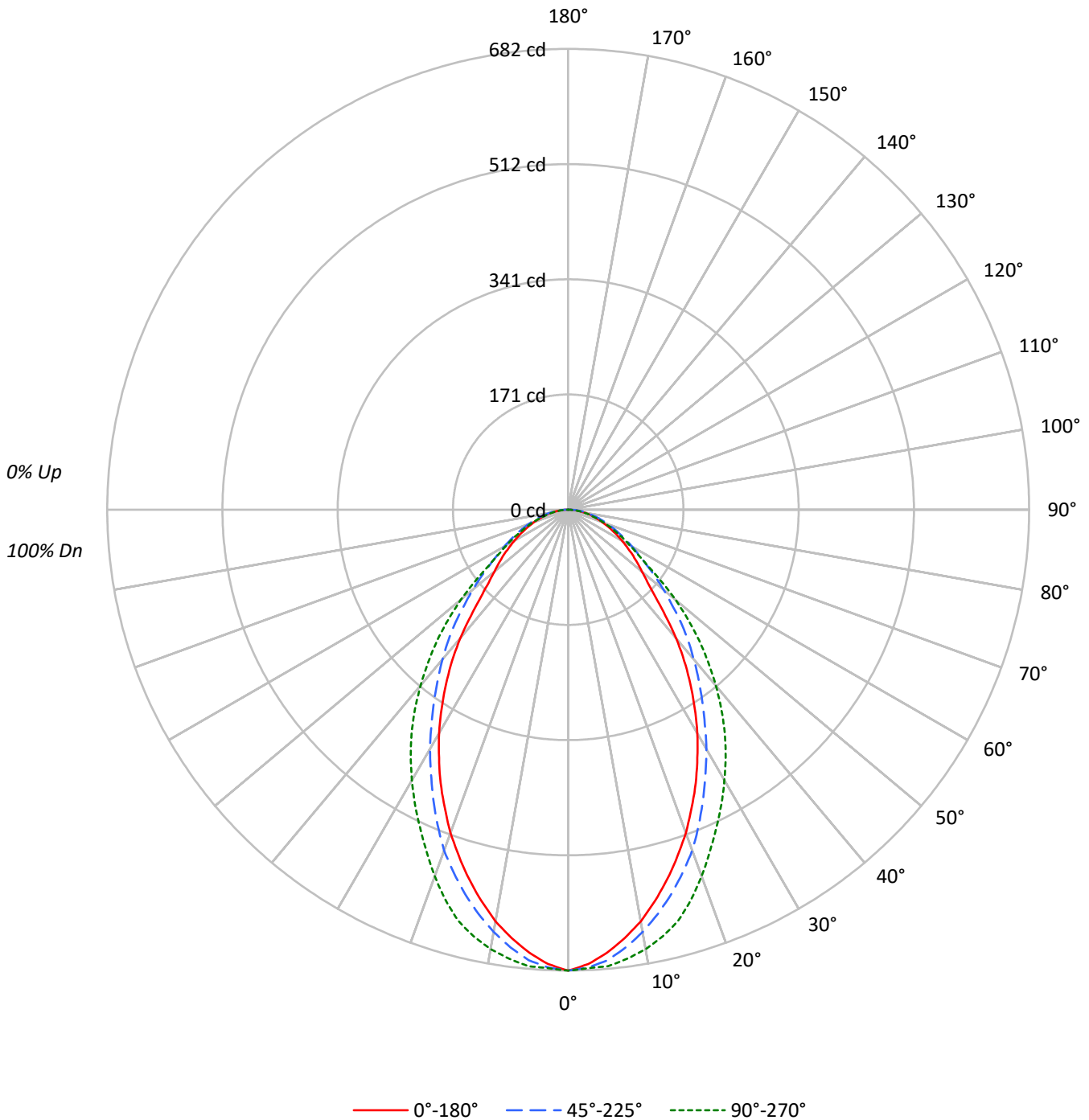
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1110.7 lumens  
Efficiency: N/A  
Efficacy: 43.0 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): 25.8  
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: P1058057

CATALOG NUMBER: S122RDRP-S675D840-X4F0-XX-UDD-WVL-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1058057

CATALOG NUMBER: S122RDRP-S675D840-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°	12586	12586	12586
5°	12194	12396	12560
10°	11593	11891	12372
15°	10818	11252	12028
20°	9993	10537	11334
25°	9091	9614	10563
30°	8141	8712	9850
35°	7091	7783	9098
40°	5986	6964	8180
45°	4755	6148	7155
50°	4094	5285	5939
55°	3725	4523	4555
60°	3399	4019	3871
65°	3113	3633	3414
70°	2886	3367	3043
75°	2681	3173	2681
80°	2529	3050	2423
85°	2519	3133	2096

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7155 cd/sqm



TEST NUMBER: P1058057

CATALOG NUMBER: S122RDRP-S675D840-X4F0-XX-UDD-WVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.0	5.7
10°-20°	166.5	15.0
20°-30°	219.1	19.7
30°-40°	220.3	19.8
40°-50°	178.5	16.1
50°-60°	123.0	11.1
60°-70°	80.5	7.2
70°-80°	44.8	4.0
80°-90°	15.2	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°	448.5	40.4
0°-40°	668.7	60.2
0°-60°	970.2	87.4
0°-90°	1110.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1110.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	682	682	682	682	682	
5°	658	671	669	672	678	62
15°	566	580	589	611	630	159
25°	446	458	472	493	519	205
35°	315	330	346	376	404	196
45°	182	203	236	256	274	144
55°	116	129	141	144	142	104
65°	71	85	83	79	78	71
75°	38	46	44	40	38	40
85°	12	16	15	13	10	13
90°	0	0	0	0	0	



TEST NUMBER: P1058057

CATALOG NUMBER: S122RDRP-S675D840-X4F0-XX-UDD-WVL-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	682.1	682.1	682.1	682.1	682.1
2.5°	673.2	685.1	678.1	678.1	679.1
5°	658.3	671.2	669.2	672.2	678.1
7.5°	639.5	653.4	653.4	662.3	670.2
10°	618.7	632.6	634.6	648.4	660.3
12.5°	593.0	606.9	612.8	630.6	646.5
15°	566.3	580.1	589.0	610.8	629.6
17.5°	537.6	551.4	563.3	586.1	604.9
20°	508.9	521.7	536.6	556.4	577.2
22.5°	477.2	491.0	504.9	523.7	547.5
25°	446.5	458.4	472.2	493.0	518.8
27.5°	413.8	426.7	439.6	464.3	491.0
30°	382.1	395.0	408.9	434.6	462.3
32.5°	348.5	362.3	376.2	404.9	433.6
35°	314.8	329.7	345.5	376.2	403.9
37.5°	282.1	298.0	316.8	348.5	372.2
40°	248.5	265.3	289.1	316.8	339.6
42.5°	212.8	233.6	262.3	286.1	306.9
45°	182.2	202.9	235.6	256.4	274.2
47.5°	159.4	176.2	207.9	225.7	240.6
50°	142.6	155.4	184.1	197.0	206.9
52.5°	128.7	141.6	161.4	170.3	173.2
55°	115.8	128.7	140.6	143.5	141.6
57.5°	103.0	116.8	123.7	120.8	120.8
60°	92.1	106.9	108.9	104.9	104.9
62.5°	81.2	96.0	96.0	91.1	91.1
65°	71.3	85.1	83.2	79.2	78.2
67.5°	62.4	75.2	72.3	68.3	67.3
70°	53.5	65.3	62.4	57.4	56.4
72.5°	45.5	56.4	52.5	48.5	46.5
75°	37.6	46.5	44.5	39.6	37.6
77.5°	30.7	37.6	35.6	31.7	29.7
80°	23.8	29.7	28.7	24.7	22.8
82.5°	17.8	22.8	21.8	18.8	15.8
85°	11.9	15.8	14.8	12.9	9.9
87.5°	5.9	10.9	9.9	8.9	4.9
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058057  
 CATALOG NUMBER: S122RDRP-S675D840-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	15.53	16.97	15.89	17.28	17.60	15.89	17.33	16.25	17.64	17.96
	3H	17.07	18.36	17.45	18.69	19.05	17.23	18.52	17.61	18.85	19.22
	4H	17.64	18.85	18.04	19.20	19.58	17.72	18.92	18.12	19.27	19.65
	6H	18.07	19.19	18.49	19.56	19.95	18.07	19.19	18.48	19.55	19.95
	8H	18.23	19.29	18.66	19.68	20.08	18.19	19.25	18.61	19.64	20.04
	12H	18.34	19.36	18.77	19.74	20.17	18.26	19.28	18.69	19.66	20.09
4H	2H	16.11	17.32	16.52	17.67	18.05	16.40	17.61	16.81	17.96	18.34
	3H	17.94	18.94	18.35	19.34	19.74	17.98	18.98	18.39	19.38	19.78
	4H	18.68	19.58	19.12	20.00	20.44	18.58	19.48	19.01	19.90	20.34
	6H	19.27	20.05	19.73	20.50	20.96	19.06	19.84	19.52	20.29	20.75
	8H	19.48	20.21	19.95	20.66	21.13	19.23	19.96	19.69	20.40	20.87
	12H	19.65	20.30	20.13	20.78	21.25	19.35	20.00	19.83	20.48	20.95
8H	4H	18.97	19.70	19.43	20.14	20.61	18.88	19.61	19.35	20.06	20.53
	6H	19.72	20.33	20.22	20.82	21.30	19.50	20.10	20.00	20.60	21.07
	8H	20.05	20.59	20.56	21.10	21.59	19.75	20.29	20.26	20.80	21.29
	12H	20.33	20.81	20.84	21.31	21.87	19.96	20.44	20.47	20.93	21.50
12H	4H	18.99	19.64	19.47	20.12	20.59	18.92	19.57	19.40	20.05	20.52
	6H	19.78	20.33	20.30	20.84	21.33	19.58	20.12	20.09	20.63	21.12
	8H	20.18	20.66	20.69	21.16	21.72	19.89	20.37	20.41	20.87	21.43