

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: P1058065

Luminaire Tested: S122RDRP-S675D850-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058065  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S675D850-X4F0-XX-UDD-WVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

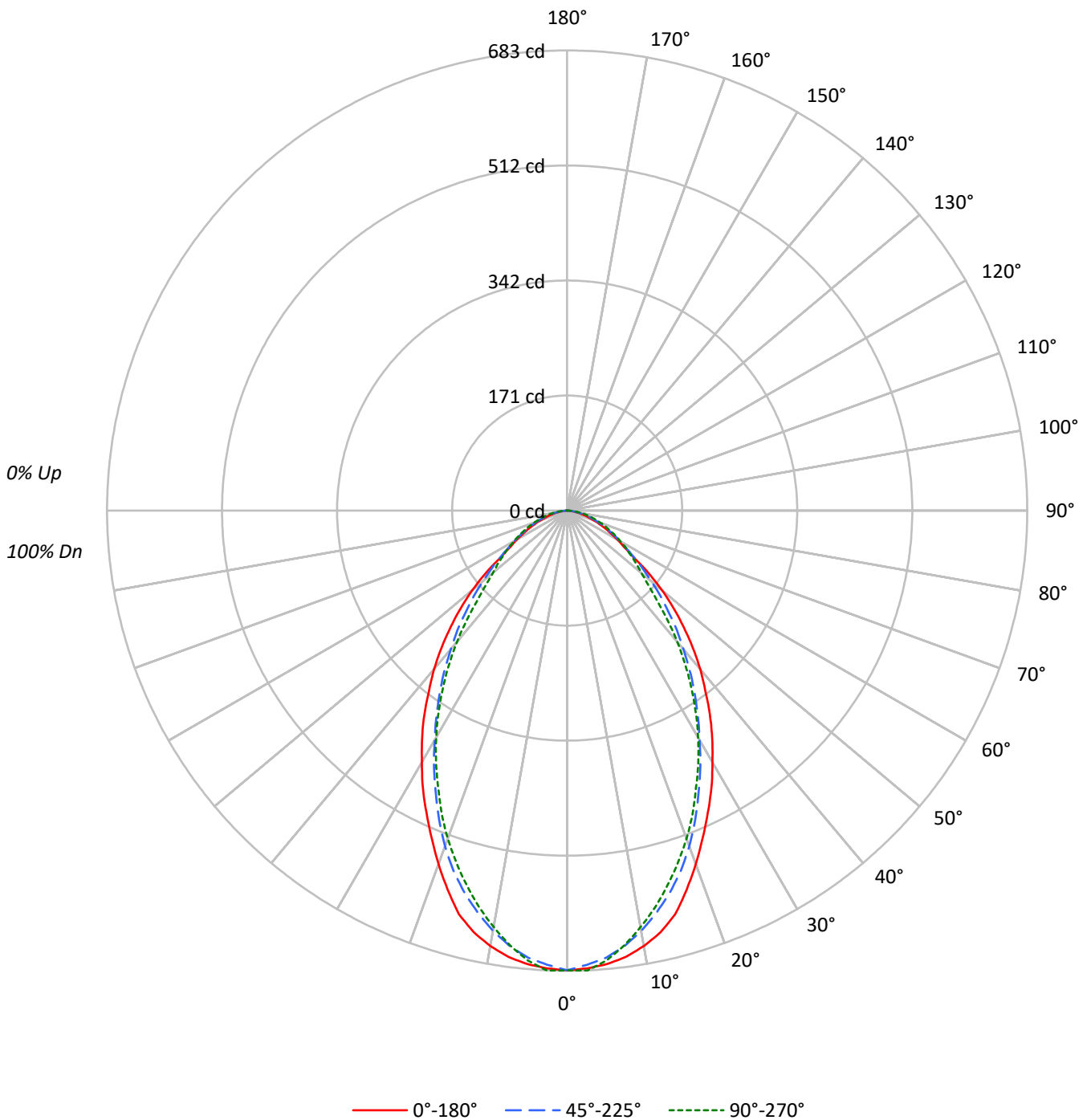
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1036.2 lumens  
Efficiency: N/A  
Efficacy: 40.2 lumens/watt  
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02  
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: P1058065

CATALOG NUMBER: S122RDRP-S675D850-X4F0-XX-UDD-WVL-B

### Luminous Intensity Polar Plot



TEST NUMBER: P1058065

CATALOG NUMBER: S122RDRP-S675D850-X4F0-XX-UDD-WVL-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	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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88																												
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77																												
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68																												
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61																												
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54																												
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49																												
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44																												
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41																												
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37																												
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34																												

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

	0°	45°	90°
0°	12590	12590	12590
5°	12516	12336	12416
10°	12295	11868	11765
15°	11850	11227	11000
20°	10965	10411	10176
25°	10064	9400	9223
30°	9190	8380	8286
35°	8321	7416	7244
40°	7407	6463	6123
45°	6378	5556	4903
50°	5271	4679	4117
55°	3809	3880	3706
60°	3166	3329	3369
65°	2703	2895	3083
70°	2228	2579	2811
75°	1861	2167	2559
80°	1381	1732	2306
85°	466	910	2075

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6378 cd/sqm

TEST NUMBER: P1058065

CATALOG NUMBER: S122RDRP-S675D850-X4F0-XX-UDD-WVL-B

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.1	6.1
10°-20°	166.1	16.0
20°-30°	214.9	20.7
30°-40°	210.8	20.3
40°-50°	166.0	16.0
50°-60°	108.8	10.5
60°-70°	66.2	6.4
70°-80°	33.1	3.2
80°-90°	7.1	0.7
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°	444.1	42.9
0°-40°	654.9	63.2
0°-60°	929.7	89.7
0°-90°	1036.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1036.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	682	682	682	682	682	
5°	676	676	666	670	670	64
15°	620	612	588	580	576	173
25°	494	478	462	460	453	227
35°	369	349	329	328	322	230
45°	244	229	213	198	188	188
55°	118	125	121	116	115	112
65°	62	63	66	70	71	62
75°	26	27	30	35	36	28
85°	2	3	4	8	10	4
90°	0	0	0	0	0	



TEST NUMBER: P1058065

CATALOG NUMBER: S122RDRP-S675D850-X4F0-XX-UDD-WVL-B

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	682.3	682.3	682.3	682.3	682.3
2.5°	680.1	681.2	674.7	681.2	683.3
5°	675.7	675.7	666.0	670.3	670.3
7.5°	668.1	667.1	651.8	651.8	650.8
10°	656.2	651.8	633.4	630.1	627.9
12.5°	641.0	633.4	611.6	606.2	603.0
15°	620.3	611.6	587.7	580.1	575.8
17.5°	589.9	581.2	560.6	551.9	547.5
20°	558.4	545.4	530.2	522.6	518.2
22.5°	525.8	510.6	496.5	491.1	486.7
25°	494.3	478.0	461.7	459.5	453.0
27.5°	463.9	444.3	428.0	427.0	421.5
30°	431.3	410.7	393.3	394.4	388.9
32.5°	400.9	381.3	360.7	361.8	355.3
35°	369.4	348.7	329.2	328.1	321.6
37.5°	336.8	317.2	298.8	294.4	287.9
40°	307.5	287.9	268.3	260.7	254.2
42.5°	275.9	258.6	241.2	229.2	220.5
45°	244.4	229.2	212.9	197.7	187.9
47.5°	214.0	202.1	187.9	169.5	163.0
50°	183.6	174.9	163.0	146.7	143.4
52.5°	152.1	148.8	141.2	130.4	129.3
55°	118.4	124.9	120.6	116.2	115.2
57.5°	99.9	101.0	104.3	103.2	103.2
60°	85.8	85.8	90.2	91.3	91.3
62.5°	72.8	73.9	78.2	80.4	80.4
65°	61.9	63.0	66.3	69.5	70.6
67.5°	51.1	53.2	56.5	59.8	60.8
70°	41.3	43.5	47.8	51.1	52.1
72.5°	33.7	34.8	39.1	42.4	43.5
75°	26.1	27.2	30.4	34.8	35.9
77.5°	18.5	20.6	23.9	27.2	29.3
80°	13.0	14.1	16.3	20.6	21.7
82.5°	7.6	8.7	10.9	14.1	15.2
85°	2.2	3.3	4.3	7.6	9.8
87.5°	0.0	0.0	0.0	2.2	4.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058065  
 CATALOG NUMBER: S122RDRP-S675D850-X4F0-XX-UDD-WVL-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	14.92	16.32	15.29	16.63	16.94	15.10	16.50	15.47	16.81	17.13
	3H	16.05	17.30	16.43	17.63	17.99	16.56	17.81	16.94	18.14	18.50
	4H	16.41	17.57	16.81	17.92	18.30	17.10	18.27	17.51	18.62	19.00
	6H	16.59	17.66	17.00	18.03	18.42	17.52	18.59	17.93	18.96	19.35
	8H	16.62	17.63	17.05	18.02	18.43	17.64	18.66	18.07	19.05	19.45
	12H	16.60	17.57	17.03	17.96	18.39	17.73	18.70	18.16	19.08	19.51
4H	2H	15.38	16.54	15.78	16.89	17.27	15.53	16.69	15.93	17.04	17.42
	3H	16.72	17.68	17.13	18.08	18.48	17.20	18.16	17.61	18.56	18.96
	4H	17.16	18.02	17.60	18.44	18.88	17.87	18.73	18.30	19.14	19.59
	6H	17.44	18.18	17.90	18.62	19.09	18.40	19.14	18.86	19.59	20.05
	8H	17.48	18.17	17.95	18.62	19.09	18.57	19.26	19.04	19.71	20.18
	12H	17.47	18.09	17.96	18.57	19.04	18.69	19.31	19.17	19.79	20.26
8H	4H	17.38	18.07	17.85	18.52	18.99	18.02	18.71	18.48	19.16	19.63
	6H	17.72	18.29	18.22	18.79	19.27	18.65	19.22	19.15	19.71	20.19
	8H	17.80	18.31	18.32	18.83	19.32	18.88	19.39	19.40	19.90	20.39
	12H	17.82	18.27	18.33	18.76	19.33	19.06	19.51	19.58	20.01	20.58
12H	4H	17.39	18.01	17.87	18.49	18.96	18.00	18.62	18.49	19.10	19.57
	6H	17.75	18.26	18.27	18.77	19.26	18.64	19.15	19.16	19.66	20.16
	8H	17.87	18.32	18.38	18.81	19.38	18.92	19.37	19.43	19.86	20.43