

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



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058469

Luminaire Tested: S122RDR-H675D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058469  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H675D850-X4F0-XX-UDD-SVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

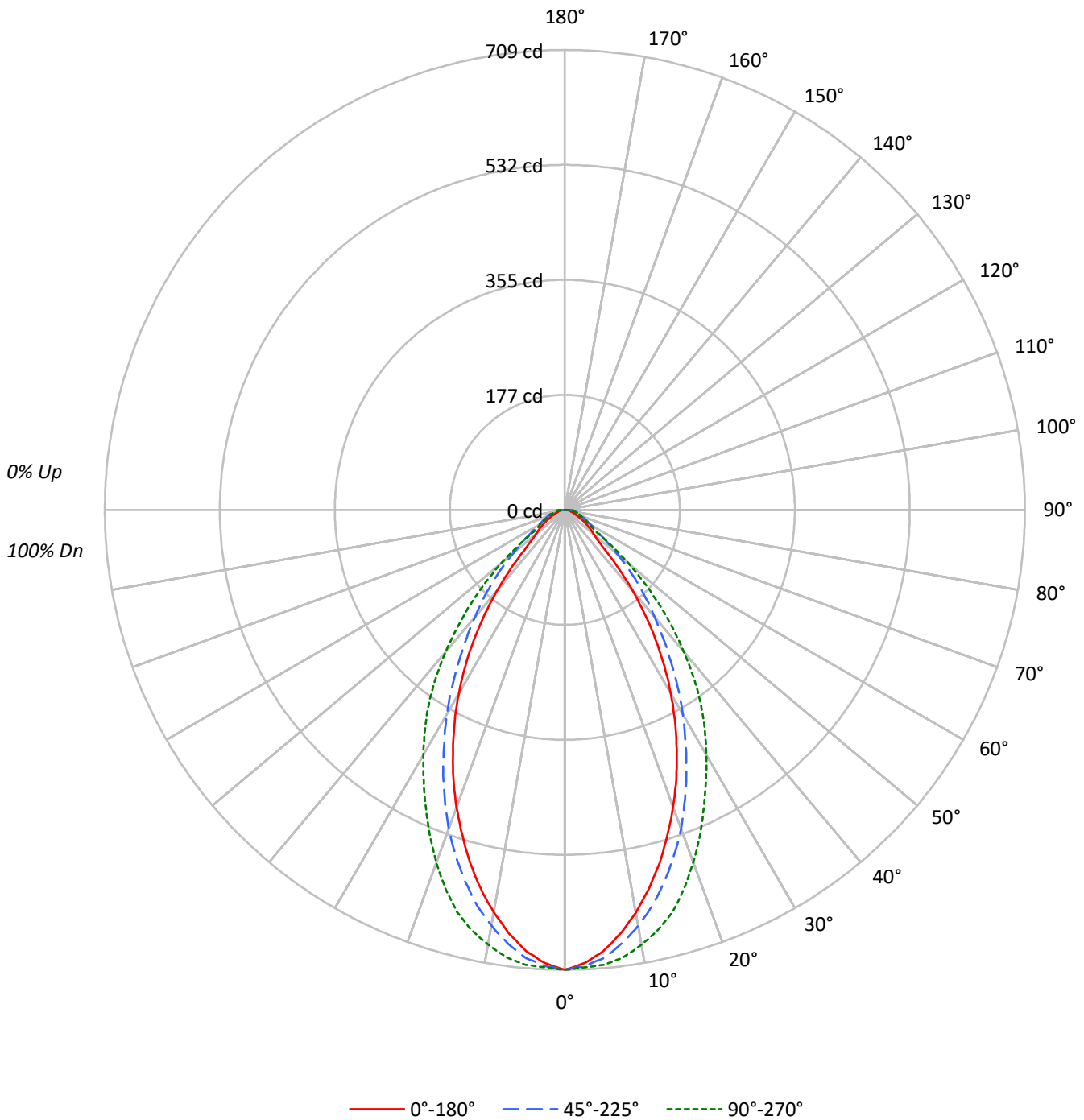
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 860.0 lumens  
Efficiency: N/A  
Efficacy: 36.6 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.5  
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

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### Luminous Intensity Polar Plot





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**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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39

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

	0°	45°	90°
0°	13083	13083	13083
5°	12646	12840	13035
10°	11804	12200	12752
15°	10767	11330	12257
20°	9579	10282	11358
25°	8301	9030	10316
30°	6959	7745	9294
35°	5483	6406	8236
40°	3907	5177	6877
45°	2309	4097	5334
50°	1662	2963	3629
55°	1390	2136	1831
60°	1129	1712	1554
65°	921	1519	1428
70°	793	1478	1365
75°	749	1504	1355
80°	786	1796	1456
85°	1122	2901	1778

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5334 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.0	7.6
10°-20°	167.1	19.4
20°-30°	206.1	24.0
30°-40°	183.3	21.3
40°-50°	117.0	13.6
50°-60°	56.2	6.5
60°-70°	33.0	3.8
70°-80°	21.1	2.4
80°-90°	11.2	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°	438.2	51.0
0°-40°	621.5	72.3
0°-60°	794.7	92.4
0°-90°	860.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	860.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	709	709	709	709	709	
5°	683	695	693	697	704	63
15°	564	577	593	620	642	157
25°	408	424	444	475	507	187
35°	243	262	284	328	366	151
45°	88	115	157	182	204	74
55°	43	56	66	64	57	39
65°	21	38	35	32	33	21
75°	10	23	21	20	19	12
85°	5	13	14	12	8	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	709.0	709.0	709.0	709.0	709.0
2.5°	699.5	711.1	703.7	703.7	705.9
5°	682.7	695.3	693.2	697.4	703.7
7.5°	658.4	672.1	674.2	685.8	695.3
10°	630.0	644.7	651.1	667.9	680.6
12.5°	598.4	613.1	624.7	645.8	663.7
15°	563.6	577.3	593.1	620.5	641.6
17.5°	525.7	543.6	559.4	587.9	612.1
20°	487.8	504.6	523.6	551.0	578.4
22.5°	448.8	464.6	483.6	512.0	543.6
25°	407.7	423.5	443.5	475.1	506.7
27.5°	367.7	383.5	402.4	437.2	470.9
30°	326.6	342.4	363.5	399.3	436.2
32.5°	285.5	302.4	323.4	362.4	401.4
35°	243.4	262.3	284.4	327.6	365.6
37.5°	202.3	221.2	248.6	290.8	326.6
40°	162.2	184.4	214.9	252.8	285.5
42.5°	123.3	147.5	185.4	216.0	244.4
45°	88.5	114.8	157.0	182.3	204.4
47.5°	67.4	86.4	129.6	149.6	165.4
50°	57.9	69.5	103.2	118.0	126.4
52.5°	50.6	61.1	82.2	89.5	89.5
55°	43.2	55.8	66.4	64.3	56.9
57.5°	36.9	50.6	54.8	46.4	48.5
60°	30.6	46.4	46.4	41.1	42.1
62.5°	25.3	43.2	40.0	35.8	36.9
65°	21.1	37.9	34.8	31.6	32.7
67.5°	16.9	33.7	30.6	28.4	28.4
70°	14.7	30.6	27.4	25.3	25.3
72.5°	12.6	26.3	24.2	22.1	22.1
75°	10.5	23.2	21.1	20.0	19.0
77.5°	9.5	20.0	19.0	16.9	15.8
80°	7.4	16.9	16.9	15.8	13.7
82.5°	6.3	14.7	14.7	13.7	11.6
85°	5.3	12.6	13.7	11.6	8.4
87.5°	4.2	11.6	11.6	9.5	6.3
90°	0.0	0.0	0.0	0.0	0.0



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**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	10.61	11.89	10.98	12.20	12.51	10.40	11.68	10.77	11.99	12.31
	3H	11.84	12.98	12.22	13.31	13.67	11.99	13.12	12.37	13.45	13.82
	4H	12.29	13.35	12.69	13.70	14.08	12.71	13.76	13.11	14.12	14.50
	6H	12.67	13.65	13.09	14.02	14.41	13.36	14.33	13.77	14.70	15.10
	8H	12.83	13.75	13.26	14.14	14.55	13.69	14.61	14.12	15.00	15.41
	12H	12.98	13.87	13.42	14.25	14.68	13.99	14.87	14.42	15.25	15.68
4H	2H	11.16	12.22	11.56	12.57	12.95	10.99	12.05	11.40	12.40	12.79
	3H	12.85	13.72	13.27	14.13	14.53	12.83	13.70	13.24	14.10	14.51
	4H	13.65	14.43	14.08	14.85	15.29	13.70	14.48	14.14	14.90	15.35
	6H	14.29	14.97	14.75	15.42	15.88	14.55	15.22	15.01	15.67	16.14
	8H	14.54	15.17	15.01	15.62	16.09	14.97	15.60	15.44	16.05	16.52
	12H	14.79	15.35	15.27	15.83	16.30	15.37	15.93	15.86	16.41	16.89
8H	4H	14.07	14.70	14.54	15.15	15.62	14.12	14.75	14.59	15.20	15.67
	6H	15.04	15.56	15.55	16.06	16.54	15.21	15.72	15.71	16.22	16.70
	8H	15.53	16.00	16.06	16.52	17.01	15.80	16.26	16.32	16.78	17.27
	12H	16.03	16.45	16.55	16.94	17.51	16.40	16.81	16.91	17.31	17.88
12H	4H	14.13	14.69	14.62	15.18	15.65	14.19	14.75	14.68	15.24	15.71
	6H	15.21	15.68	15.73	16.19	16.69	15.37	15.84	15.89	16.35	16.84
	8H	15.85	16.26	16.36	16.75	17.32	16.08	16.49	16.60	16.99	17.56