

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: P1058451

Luminaire Tested: S122RDR-H675D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058451  
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-H675D835-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: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

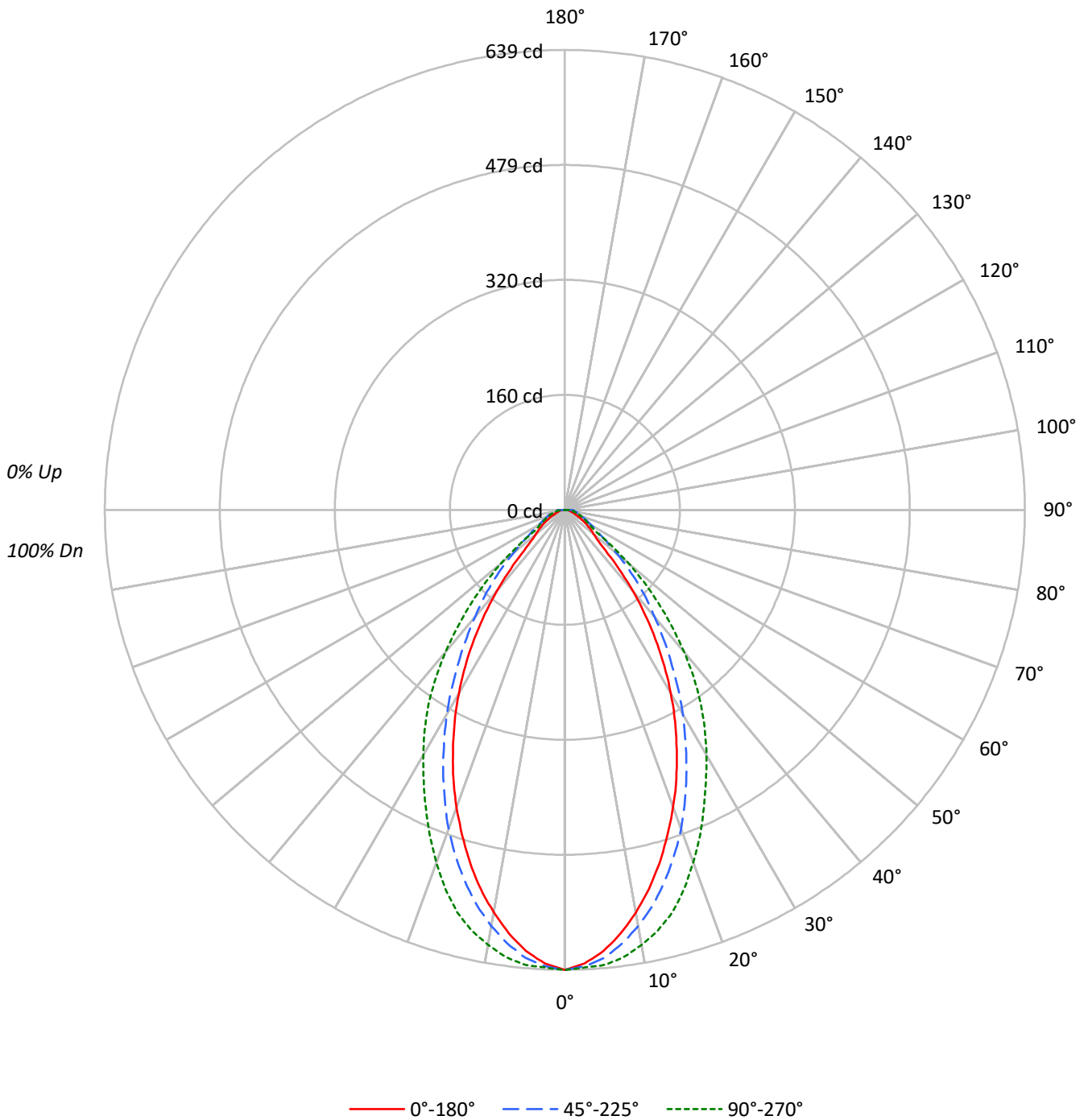
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 775.4 lumens  
Efficiency: N/A  
Efficacy: 33.0 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	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°	11797	11797	11797
5°	11403	11579	11755
10°	10645	11001	11499
15°	9708	10216	11051
20°	8636	9270	10241
25°	7484	8142	9303
30°	6275	6982	8380
35°	4942	5778	7425
40°	3524	4668	6200
45°	2082	3693	4809
50°	1499	2673	3273
55°	1251	1924	1650
60°	1015	1543	1402
65°	830	1367	1284
70°	718	1333	1230
75°	677	1355	1219
80°	701	1615	1307
85°	995	2604	1609

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4809 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.6	7.6
10°-20°	150.6	19.4
20°-30°	185.8	24.0
30°-40°	165.3	21.3
40°-50°	105.5	13.6
50°-60°	50.7	6.5
60°-70°	29.7	3.8
70°-80°	19.0	2.4
80°-90°	10.1	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°	395.1	51.0
0°-40°	560.4	72.3
0°-60°	716.6	92.4
0°-90°	775.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	775.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	639	639	639	639	639	
5°	616	627	625	629	635	57
15°	508	521	535	560	578	142
25°	368	382	400	428	457	168
35°	219	236	256	295	330	136
45°	80	104	142	164	184	67
55°	39	50	60	58	51	35
65°	19	34	31	28	29	19
75°	10	21	19	18	17	10
85°	5	11	12	10	8	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	639.3	639.3	639.3	639.3	639.3
2.5°	630.8	641.2	634.6	634.6	636.5
5°	615.6	627.0	625.1	628.9	634.6
7.5°	593.7	606.1	608.0	618.4	627.0
10°	568.1	581.4	587.1	602.3	613.7
12.5°	539.6	552.9	563.3	582.3	598.5
15°	508.2	520.6	534.8	559.5	578.5
17.5°	474.0	490.2	504.4	530.1	551.9
20°	439.8	455.0	472.1	496.8	521.5
22.5°	404.7	418.9	436.0	461.7	490.2
25°	367.6	381.9	399.9	428.4	456.9
27.5°	331.5	345.8	362.9	394.2	424.6
30°	294.5	308.7	327.7	360.0	393.3
32.5°	257.4	272.6	291.6	326.8	361.9
35°	219.4	236.5	256.5	295.4	329.6
37.5°	182.4	199.5	224.2	262.2	294.5
40°	146.3	166.2	193.8	228.0	257.4
42.5°	111.1	133.0	167.2	194.7	220.4
45°	79.8	103.5	141.5	164.3	184.3
47.5°	60.8	77.9	116.8	134.9	149.1
50°	52.2	62.7	93.1	106.4	114.0
52.5°	45.6	55.1	74.1	80.7	80.7
55°	38.9	50.3	59.8	57.9	51.3
57.5°	33.2	45.6	49.4	41.8	43.7
60°	27.5	41.8	41.8	37.0	38.0
62.5°	22.8	38.9	36.1	32.3	33.2
65°	19.0	34.2	31.3	28.5	29.4
67.5°	15.2	30.4	27.5	25.6	25.6
70°	13.3	27.5	24.7	22.8	22.8
72.5°	11.4	23.7	21.8	19.9	19.9
75°	9.5	20.9	19.0	18.0	17.1
77.5°	8.5	18.0	17.1	15.2	14.2
80°	6.6	15.2	15.2	14.2	12.3
82.5°	5.7	13.3	13.3	12.3	10.4
85°	4.7	11.4	12.3	10.4	7.6
87.5°	3.8	10.4	10.4	8.5	5.7
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	10.25	11.52	10.61	11.83	12.15	10.04	11.31	10.40	11.63	11.94
	3H	11.48	12.61	11.86	12.94	13.31	11.63	12.76	12.01	13.09	13.46
	4H	11.93	12.99	12.33	13.34	13.72	12.34	13.40	12.74	13.75	14.13
	6H	12.31	13.28	12.72	13.65	14.04	12.99	13.96	13.40	14.33	14.73
	8H	12.46	13.38	12.89	13.77	14.18	13.32	14.24	13.75	14.63	15.04
	12H	12.62	13.50	13.05	13.88	14.31	13.61	14.50	14.05	14.88	15.31
4H	2H	10.79	11.85	11.20	12.20	12.59	10.63	11.69	11.03	12.04	12.42
	3H	12.49	13.36	12.90	13.76	14.17	12.46	13.33	12.87	13.74	14.14
	4H	13.28	14.06	13.72	14.48	14.93	13.33	14.12	13.77	14.54	14.98
	6H	13.92	14.60	14.39	15.05	15.51	14.18	14.85	14.64	15.30	15.77
	8H	14.17	14.80	14.64	15.25	15.72	14.60	15.23	15.07	15.68	16.15
	12H	14.42	14.98	14.90	15.46	15.93	15.00	15.56	15.48	16.04	16.52
8H	4H	13.70	14.33	14.17	14.78	15.25	13.75	14.38	14.22	14.83	15.30
	6H	14.68	15.19	15.18	15.69	16.17	14.83	15.35	15.34	15.85	16.33
	8H	15.17	15.63	15.69	16.15	16.64	15.42	15.89	15.94	16.41	16.90
	12H	15.67	16.08	16.18	16.58	17.15	16.02	16.44	16.54	16.93	17.50
12H	4H	13.77	14.33	14.25	14.81	15.28	13.83	14.39	14.31	14.87	15.34
	6H	14.84	15.31	15.37	15.83	16.32	15.00	15.47	15.52	15.98	16.47
	8H	15.48	15.89	16.00	16.39	16.96	15.71	16.12	16.22	16.61	17.19