

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: P1058438

Luminaire Tested: S122RDR-H675D830-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058438  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H675D830-X4F0-XX-UDD-BVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

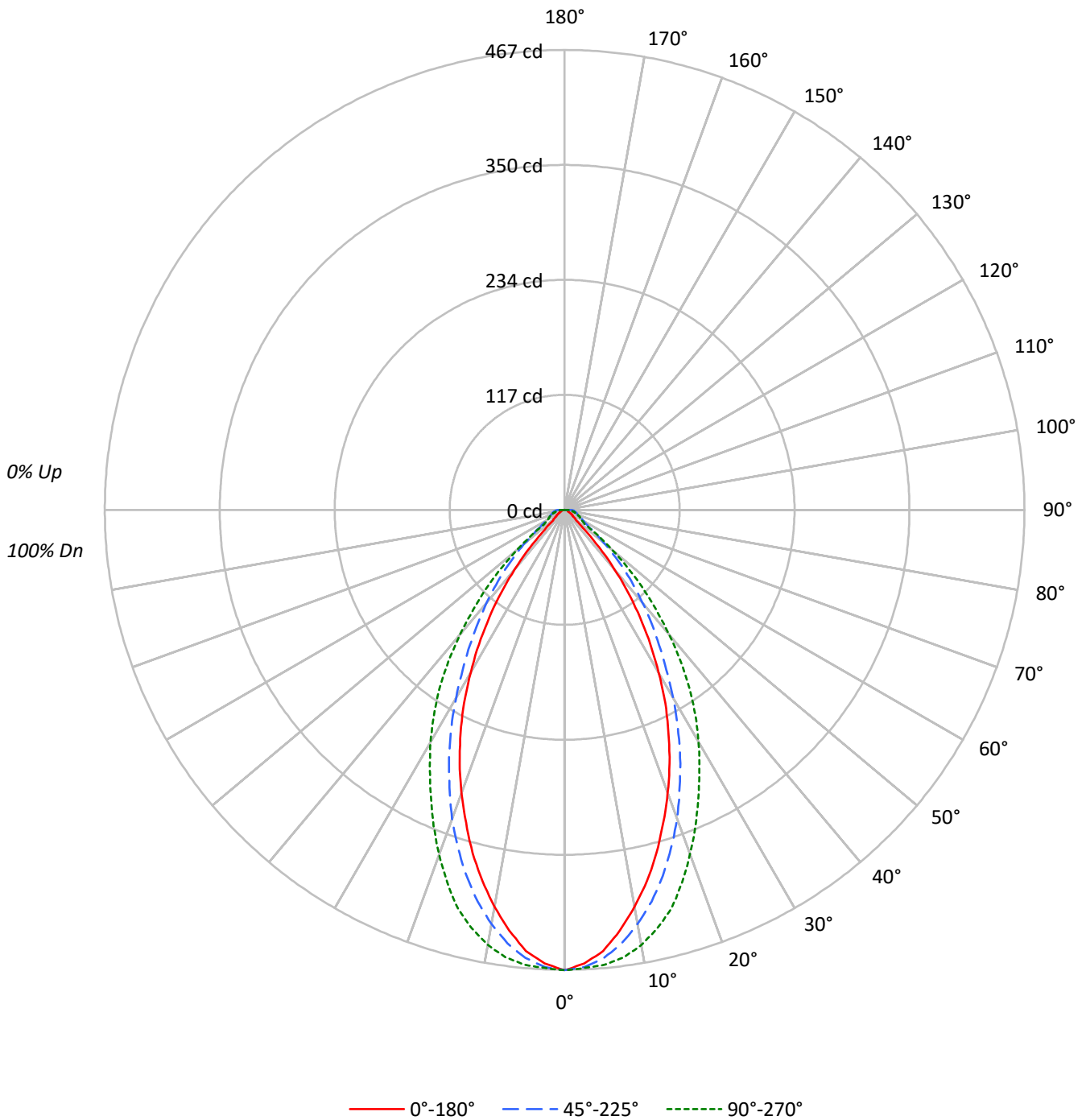
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 503.8 lumens  
Efficiency: N/A  
Efficacy: 21.4 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9  
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	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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90																																				
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81																																				
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74																																				
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67																																				
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61																																				
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57																																				
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52																																				
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48																																				
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45																																				
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42																																				

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

	0°	45°	90°
0°	8625	8625	8625
5°	8326	8458	8591
10°	7667	8003	8405
15°	6893	7355	8004
20°	6013	6559	7315
25°	5086	5652	6544
30°	4063	4694	5800
35°	3005	3771	4983
40°	1898	2956	3970
45°	749	2221	2920
50°	385	1490	1800
55°	315	978	807
60°	233	793	727
65°	196	742	742
70°	194	772	723
75°	257	891	763
80°	383	1137	861
85°	572	1905	1143

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 87.5°  
 Luminance: 3807 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.8	8.5
10°-20°	108.0	21.4
20°-30°	128.3	25.5
30°-40°	106.7	21.2
40°-50°	59.6	11.8
50°-60°	24.1	4.8
60°-70°	15.4	3.1
70°-80°	11.5	2.3
80°-90°	7.4	1.5
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°	279.1	55.4
0°-40°	385.8	76.6
0°-60°	469.5	93.2
0°-90°	503.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	503.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	467	467	467	467	467	
5°	450	458	457	460	464	42
15°	361	372	385	405	419	100
25°	250	260	278	299	321	114
35°	133	146	167	195	221	83
45°	29	48	85	99	112	27
55°	10	21	30	30	25	9
65°	4	18	17	16	17	5
75°	4	12	12	12	11	4
85°	3	8	9	8	5	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	467.4	467.4	467.4	467.4	467.4
2.5°	461.1	468.3	464.7	464.7	465.6
5°	449.5	457.5	456.6	460.2	463.8
7.5°	430.7	439.6	444.1	452.2	458.4
10°	409.2	419.0	427.1	439.6	448.6
12.5°	385.9	395.8	407.4	423.5	435.2
15°	360.8	371.6	385.0	404.7	419.0
17.5°	333.1	344.7	359.9	381.4	396.7
20°	306.2	317.9	334.0	355.5	372.5
22.5°	278.5	288.3	305.3	326.8	347.4
25°	249.8	259.7	277.6	299.1	321.4
27.5°	221.2	231.0	248.9	271.3	296.4
30°	190.7	201.5	220.3	245.3	272.2
32.5°	162.1	172.8	192.5	220.3	247.1
35°	133.4	145.9	167.4	195.2	221.2
37.5°	105.7	120.0	144.2	170.1	193.4
40°	78.8	94.0	122.7	145.1	164.8
42.5°	51.9	69.8	103.0	121.8	137.0
45°	28.7	48.4	85.1	99.4	111.9
47.5°	16.1	31.3	67.2	78.8	86.0
50°	13.4	23.3	51.9	60.0	62.7
52.5°	10.7	21.5	39.4	43.9	42.1
55°	9.8	20.6	30.4	29.5	25.1
57.5°	8.1	20.6	24.2	21.5	21.5
60°	6.3	19.7	21.5	18.8	19.7
62.5°	5.4	18.8	19.7	17.9	17.9
65°	4.5	17.9	17.0	16.1	17.0
67.5°	3.6	16.1	16.1	15.2	15.2
70°	3.6	15.2	14.3	13.4	13.4
72.5°	3.6	13.4	13.4	12.5	12.5
75°	3.6	12.5	12.5	11.6	10.7
77.5°	3.6	10.7	11.6	10.7	9.8
80°	3.6	9.8	10.7	9.8	8.1
82.5°	3.6	9.0	9.8	9.0	7.2
85°	2.7	8.1	9.0	8.1	5.4
87.5°	2.7	8.1	9.0	7.2	4.5
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	5.86	7.08	6.22	7.39	7.70	6.93	8.15	7.29	8.46	8.78
	3H	7.19	8.27	7.57	8.60	8.97	8.95	10.04	9.33	10.37	10.73
	4H	7.76	8.77	8.16	9.12	9.51	9.90	10.91	10.31	11.26	11.65
	6H	8.33	9.26	8.74	9.63	10.02	10.85	11.78	11.26	12.15	12.54
	8H	8.65	9.53	9.09	9.93	10.33	11.30	12.18	11.73	12.57	12.98
	12H	8.96	9.81	9.40	10.19	10.62	11.73	12.57	12.16	12.95	13.38
4H	2H	6.82	7.83	7.22	8.18	8.56	7.60	8.62	8.01	8.97	9.35
	3H	8.84	9.67	9.25	10.08	10.48	9.88	10.71	10.29	11.12	11.52
	4H	9.92	10.66	10.35	11.09	11.53	11.02	11.77	11.46	12.19	12.64
	6H	10.79	11.43	11.25	11.88	12.35	12.19	12.84	12.66	13.29	13.75
	8H	11.20	11.81	11.67	12.26	12.73	12.76	13.37	13.23	13.81	14.29
	12H	11.59	12.12	12.07	12.60	13.08	13.31	13.85	13.80	14.33	14.80
8H	4H	10.68	11.29	11.15	11.74	12.21	11.57	12.18	12.04	12.63	13.10
	6H	12.02	12.52	12.52	13.01	13.50	13.02	13.52	13.53	14.02	14.50
	8H	12.74	13.19	13.27	13.71	14.20	13.80	14.24	14.32	14.76	15.25
	12H	13.44	13.84	13.96	14.33	14.91	14.59	14.99	15.11	15.48	16.05
12H	4H	10.84	11.37	11.33	11.86	12.33	11.68	12.21	12.17	12.70	13.17
	6H	12.34	12.79	12.86	13.30	13.80	13.25	13.70	13.77	14.21	14.71
	8H	13.25	13.64	13.77	14.14	14.71	14.17	14.56	14.68	15.05	15.63