

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: P1058444

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058444  
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: S122RDR-H675D830-X4F0-XX-UDD-WVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

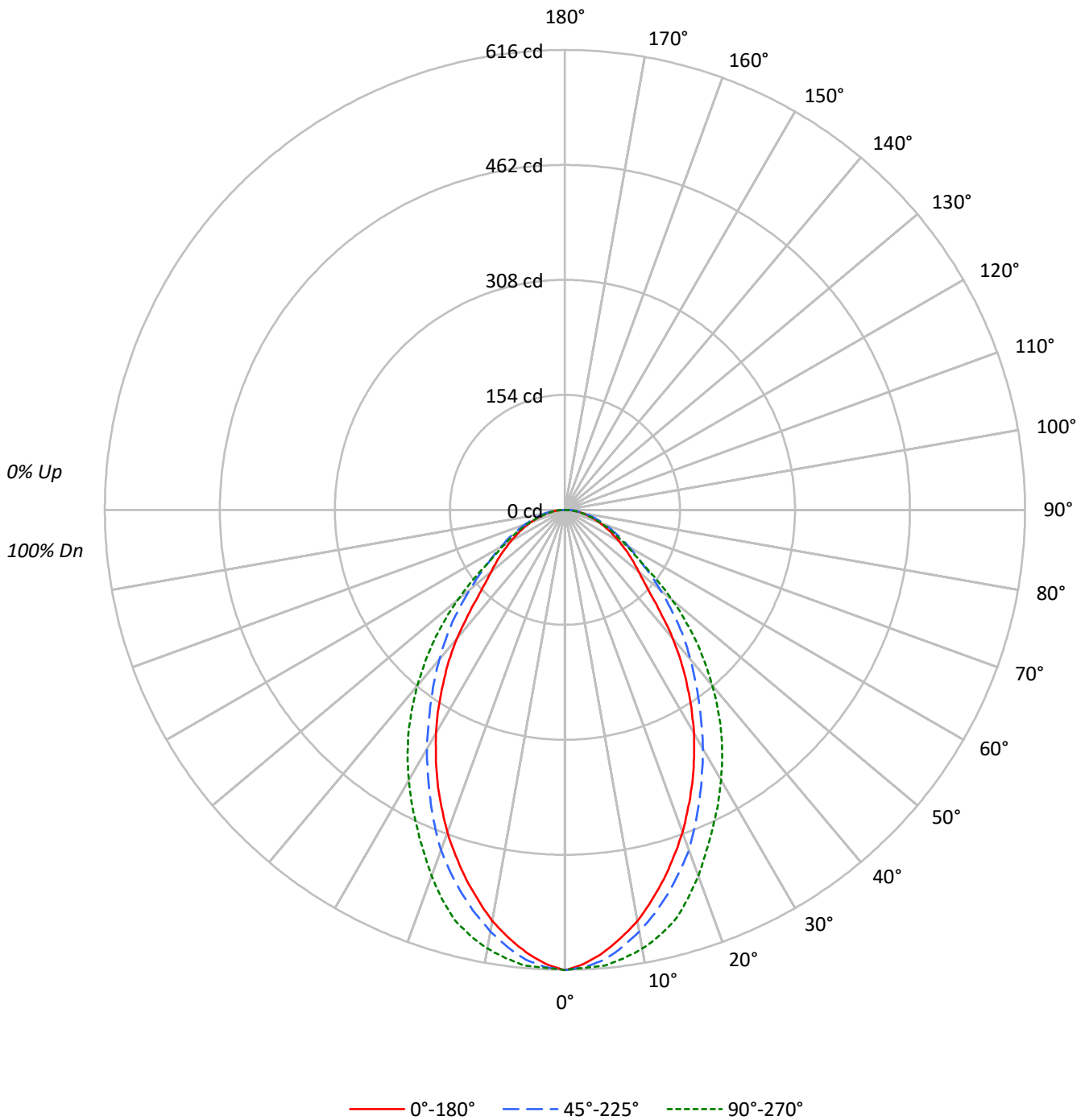
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1003.9 lumens  
Efficiency: N/A  
Efficacy: 42.7 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): 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	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°	11376	11376	11376
5°	11021	11205	11353
10°	10478	10746	11182
15°	9777	10171	10872
20°	9031	9524	10244
25°	8215	8690	9547
30°	7359	7873	8904
35°	6409	7035	8224
40°	5410	6294	7393
45°	4295	5558	6469
50°	3697	4777	5368
55°	3368	4089	4118
60°	3070	3631	3499
65°	2812	3283	3087
70°	2606	3043	2752
75°	2424	2873	2424
80°	2285	2752	2189
85°	2265	2837	1884

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6469 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.9	5.7
10°-20°	150.5	15.0
20°-30°	198.0	19.7
30°-40°	199.1	19.8
40°-50°	161.4	16.1
50°-60°	111.1	11.1
60°-70°	72.7	7.2
70°-80°	40.5	4.0
80°-90°	13.7	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°	405.3	40.4
0°-40°	604.4	60.2
0°-60°	876.9	87.4
0°-90°	1003.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1003.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	616	616	616	616	616	
5°	595	607	605	608	613	56
15°	512	524	532	552	569	143
25°	404	414	427	446	469	185
35°	284	298	312	340	365	177
45°	165	183	213	232	248	130
55°	105	116	127	130	128	94
65°	64	77	75	72	71	64
75°	34	42	40	36	34	36
85°	11	14	13	12	9	12
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	616.5	616.5	616.5	616.5	616.5
2.5°	608.4	619.2	612.9	612.9	613.8
5°	595.0	606.7	604.9	607.5	612.9
7.5°	578.0	590.5	590.5	598.6	605.8
10°	559.2	571.8	573.5	586.1	596.8
12.5°	536.0	548.5	553.9	570.0	584.3
15°	511.8	524.3	532.4	552.1	569.1
17.5°	485.9	498.4	509.1	529.7	546.7
20°	459.9	471.5	485.0	502.9	521.7
22.5°	431.3	443.8	456.3	473.3	494.8
25°	403.5	414.3	426.8	445.6	468.9
27.5°	374.0	385.6	397.3	419.6	443.8
30°	345.4	357.0	369.5	392.8	417.9
32.5°	315.0	327.5	340.0	366.0	391.9
35°	284.5	298.0	312.3	340.0	365.1
37.5°	255.0	269.3	286.3	315.0	336.4
40°	224.6	239.8	261.3	286.3	306.9
42.5°	192.4	211.2	237.1	258.6	277.4
45°	164.6	183.4	213.0	231.7	247.9
47.5°	144.1	159.3	187.9	204.0	217.4
50°	128.8	140.5	166.4	178.1	187.0
52.5°	116.3	128.0	145.8	153.9	156.6
55°	104.7	116.3	127.1	129.7	128.0
57.5°	93.1	105.6	111.8	109.2	109.2
60°	83.2	96.6	98.4	94.8	94.8
62.5°	73.4	86.8	86.8	82.3	82.3
65°	64.4	77.0	75.2	71.6	70.7
67.5°	56.4	68.0	65.3	61.7	60.8
70°	48.3	59.1	56.4	51.9	51.0
72.5°	41.2	51.0	47.4	43.8	42.1
75°	34.0	42.1	40.3	35.8	34.0
77.5°	27.7	34.0	32.2	28.6	26.8
80°	21.5	26.8	25.9	22.4	20.6
82.5°	16.1	20.6	19.7	17.0	14.3
85°	10.7	14.3	13.4	11.6	8.9
87.5°	5.4	9.8	8.9	8.1	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	15.18	16.62	15.54	16.93	17.25	15.54	16.98	15.90	17.29	17.61
	3H	16.72	18.01	17.10	18.34	18.70	16.88	18.17	17.26	18.50	18.86
	4H	17.29	18.50	17.70	18.85	19.23	17.37	18.57	17.77	18.92	19.30
	6H	17.72	18.84	18.14	19.21	19.60	17.72	18.83	18.13	19.20	19.60
	8H	17.88	18.94	18.31	19.33	19.73	17.84	18.90	18.26	19.29	19.69
	12H	17.99	19.01	18.42	19.39	19.82	17.91	18.92	18.34	19.31	19.74
4H	2H	15.76	16.97	16.17	17.32	17.70	16.05	17.26	16.45	17.61	17.99
	3H	17.59	18.59	18.00	18.99	19.39	17.63	18.63	18.04	19.03	19.43
	4H	18.34	19.24	18.77	19.65	20.09	18.23	19.13	18.66	19.55	19.99
	6H	18.92	19.70	19.38	20.15	20.61	18.71	19.49	19.17	19.94	20.40
	8H	19.13	19.86	19.60	20.31	20.78	18.87	19.61	19.34	20.05	20.52
	12H	19.30	19.95	19.78	20.43	20.90	18.99	19.65	19.48	20.13	20.60
8H	4H	18.62	19.35	19.08	19.80	20.26	18.53	19.26	19.00	19.71	20.18
	6H	19.37	19.98	19.87	20.47	20.95	19.15	19.75	19.65	20.24	20.72
	8H	19.70	20.24	20.21	20.75	21.24	19.40	19.94	19.91	20.45	20.94
	12H	19.98	20.46	20.49	20.95	21.52	19.61	20.09	20.12	20.58	21.15
12H	4H	18.64	19.29	19.12	19.77	20.24	18.56	19.22	19.05	19.70	20.17
	6H	19.43	19.98	19.95	20.49	20.98	19.22	19.77	19.74	20.28	20.77
	8H	19.83	20.31	20.34	20.80	21.37	19.54	20.02	20.05	20.52	21.08