

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: P1058442

Luminaire Tested: S122RDR-H675D830-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058442  
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-H675D830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

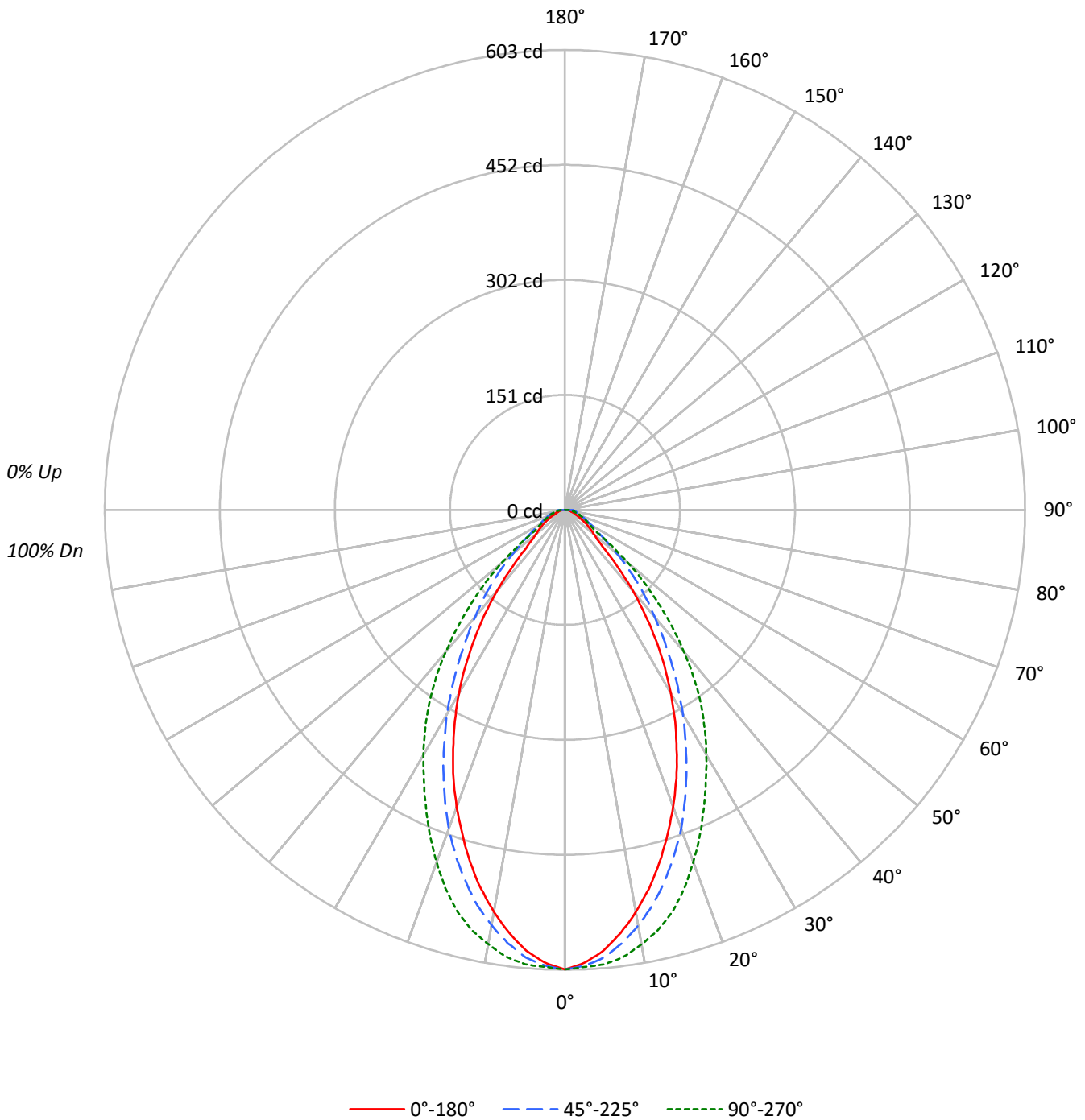
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 730.9 lumens  
Efficiency: N/A  
Efficacy: 31.1 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				100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72				72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59				59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50				50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46				46
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42				42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39				39

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

	0°	45°	90°
0°	11119	11119	11119
5°	10747	10914	11079
10°	10032	10367	10838
15°	9151	9630	10417
20°	8141	8738	9653
25°	7055	7676	8769
30°	5915	6582	7899
35°	4658	5447	6999
40°	3322	4401	5844
45°	1962	3481	4533
50°	1412	2518	3083
55°	1181	1814	1557
60°	960	1454	1321
65°	782	1288	1214
70°	674	1257	1160
75°	642	1276	1148
80°	669	1520	1233
85°	953	2456	1524

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4533 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.3	7.6
10°-20°	142.0	19.4
20°-30°	175.2	24.0
30°-40°	155.8	21.3
40°-50°	99.5	13.6
50°-60°	47.8	6.5
60°-70°	28.0	3.8
70°-80°	17.9	2.4
80°-90°	9.5	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°	372.4	51.0
0°-40°	528.2	72.3
0°-60°	675.4	92.4
0°-90°	730.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	730.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	603	603	603	603	603	
5°	580	591	589	593	598	54
15°	479	491	504	527	545	134
25°	346	360	377	404	431	159
35°	207	223	242	278	311	128
45°	75	98	133	155	174	63
55°	37	48	56	55	48	33
65°	18	32	30	27	28	18
75°	9	20	18	17	16	10
85°	4	11	12	10	7	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	602.6	602.6	602.6	602.6	602.6
2.5°	594.5	604.4	598.1	598.1	599.9
5°	580.2	591.0	589.2	592.7	598.1
7.5°	559.6	571.3	573.0	582.9	591.0
10°	535.4	548.0	553.3	567.7	578.4
12.5°	508.6	521.1	531.0	548.9	564.1
15°	479.0	490.7	504.1	527.4	545.3
17.5°	446.8	462.0	475.4	499.6	520.2
20°	414.6	428.9	445.0	468.3	491.6
22.5°	381.4	394.9	411.0	435.2	462.0
25°	346.5	359.9	377.0	403.8	430.7
27.5°	312.5	325.9	342.0	371.6	400.2
30°	277.6	291.0	308.9	339.4	370.7
32.5°	242.6	257.0	274.9	308.0	341.1
35°	206.8	223.0	241.8	278.5	310.7
37.5°	171.9	188.0	211.3	247.1	277.6
40°	137.9	156.7	182.7	214.9	242.6
42.5°	104.8	125.4	157.6	183.6	207.7
45°	75.2	97.6	133.4	154.9	173.7
47.5°	57.3	73.4	110.1	127.1	140.6
50°	49.2	59.1	87.7	100.3	107.4
52.5°	43.0	51.9	69.8	76.1	76.1
55°	36.7	47.5	56.4	54.6	48.4
57.5°	31.3	43.0	46.6	39.4	41.2
60°	26.0	39.4	39.4	34.9	35.8
62.5°	21.5	36.7	34.0	30.4	31.3
65°	17.9	32.2	29.5	26.9	27.8
67.5°	14.3	28.7	26.0	24.2	24.2
70°	12.5	26.0	23.3	21.5	21.5
72.5°	10.7	22.4	20.6	18.8	18.8
75°	9.0	19.7	17.9	17.0	16.1
77.5°	8.1	17.0	16.1	14.3	13.4
80°	6.3	14.3	14.3	13.4	11.6
82.5°	5.4	12.5	12.5	11.6	9.8
85°	4.5	10.7	11.6	9.8	7.2
87.5°	3.6	9.8	9.8	8.1	5.4
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	10.04	11.32	10.41	11.63	11.95	9.83	11.11	10.20	11.42	11.74
	3H	11.27	12.41	11.65	12.74	13.10	11.43	12.56	11.81	12.89	13.26
	4H	11.73	12.79	12.13	13.14	13.52	12.14	13.20	12.54	13.55	13.93
	6H	12.11	13.08	12.52	13.45	13.85	12.79	13.76	13.20	14.13	14.53
	8H	12.26	13.19	12.69	13.58	13.98	13.12	14.04	13.55	14.43	14.83
	12H	12.42	13.30	12.86	13.69	14.12	13.41	14.30	13.85	14.68	15.11
4H	2H	10.59	11.65	10.99	12.00	12.38	10.42	11.48	10.82	11.83	12.22
	3H	12.29	13.16	12.70	13.56	13.96	12.26	13.13	12.67	13.54	13.94
	4H	13.08	13.86	13.52	14.28	14.73	13.13	13.92	13.57	14.34	14.78
	6H	13.73	14.40	14.19	14.85	15.32	13.97	14.65	14.44	15.10	15.56
	8H	13.97	14.61	14.44	15.06	15.53	14.40	15.03	14.87	15.48	15.95
	12H	14.22	14.78	14.71	15.26	15.74	14.80	15.36	15.28	15.84	16.32
8H	4H	13.50	14.13	13.97	14.58	15.05	13.55	14.18	14.02	14.63	15.10
	6H	14.47	14.99	14.98	15.49	15.97	14.63	15.15	15.13	15.65	16.13
	8H	14.96	15.43	15.49	15.95	16.44	15.22	15.69	15.74	16.20	16.69
	12H	15.47	15.88	15.98	16.37	16.95	15.82	16.23	16.34	16.73	17.30
12H	4H	13.56	14.12	14.05	14.61	15.08	13.63	14.19	14.11	14.67	15.14
	6H	14.64	15.11	15.16	15.62	16.12	14.80	15.26	15.32	15.78	16.27
	8H	15.28	15.69	15.79	16.18	16.76	15.50	15.92	16.02	16.41	16.98