

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: P1058532

Luminaire Tested: S122RDR-H865D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058532  
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-H865D835-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: -

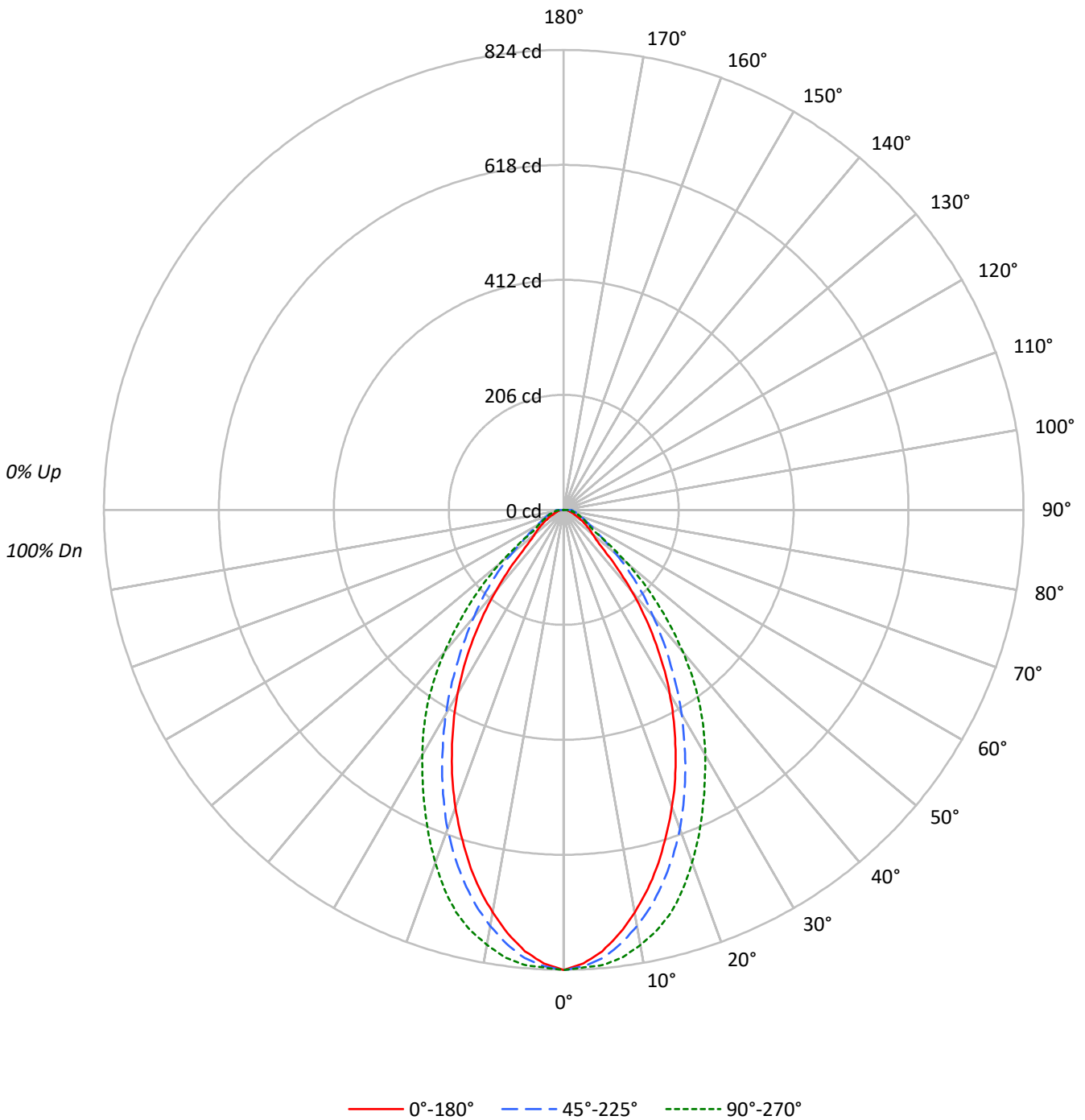
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1000.1 lumens  
Efficiency: N/A  
Efficacy: 32.1 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): 31.2  
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°	15214	15214	15214
5°	14705	14931	15159
10°	13727	14186	14829
15°	12520	13176	14253
20°	11138	11957	13208
25°	9653	10502	11998
30°	8092	9007	10807
35°	6375	7452	9576
40°	4545	6020	7997
45°	2685	4762	6203
50°	1935	3448	4220
55°	1615	2484	2130
60°	1310	1989	1808
65°	1070	1764	1659
70°	928	1721	1586
75°	877	1747	1576
80°	914	2083	1690
85°	1291	3366	2075

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6203 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.6	7.6
10°-20°	194.3	19.4
20°-30°	239.7	24.0
30°-40°	213.2	21.3
40°-50°	136.1	13.6
50°-60°	65.3	6.5
60°-70°	38.4	3.8
70°-80°	24.5	2.5
80°-90°	13.1	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°	509.6	51.0
0°-40°	722.8	72.3
0°-60°	924.2	92.4
0°-90°	1000.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1000.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	824	824	824	824	824	
5°	794	809	806	811	818	74
15°	655	671	690	722	746	183
25°	474	492	516	552	589	217
35°	283	305	331	381	425	176
45°	103	134	182	212	238	86
55°	50	65	77	75	66	45
65°	24	44	40	37	38	25
75°	12	27	24	23	22	13
85°	6	15	16	14	10	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	824.5	824.5	824.5	824.5	824.5
2.5°	813.5	826.9	818.4	818.4	820.8
5°	793.9	808.6	806.1	811.0	818.4
7.5°	765.7	781.6	784.1	797.5	808.6
10°	732.6	749.8	757.1	776.7	791.4
12.5°	695.9	713.0	726.5	751.0	771.8
15°	655.4	671.4	689.7	721.6	746.1
17.5°	611.3	632.2	650.5	683.6	711.8
20°	567.2	586.8	608.9	640.7	672.6
22.5°	521.9	540.3	562.3	595.4	632.2
25°	474.1	492.5	515.8	552.5	589.3
27.5°	427.6	445.9	468.0	508.4	547.6
30°	379.8	398.2	422.7	464.3	507.2
32.5°	332.0	351.6	376.1	421.4	466.8
35°	283.0	305.1	330.8	381.0	425.1
37.5°	235.2	257.3	289.1	338.1	379.8
40°	188.7	214.4	249.9	294.0	332.0
42.5°	143.3	171.5	215.6	251.1	284.2
45°	102.9	133.5	182.5	211.9	237.7
47.5°	78.4	100.5	150.7	174.0	192.3
50°	67.4	80.9	120.1	137.2	147.0
52.5°	58.8	71.1	95.6	104.1	104.1
55°	50.2	64.9	77.2	74.7	66.2
57.5°	42.9	58.8	63.7	53.9	56.4
60°	35.5	53.9	53.9	47.8	49.0
62.5°	29.4	50.2	46.6	41.7	42.9
65°	24.5	44.1	40.4	36.8	38.0
67.5°	19.6	39.2	35.5	33.1	33.1
70°	17.2	35.5	31.9	29.4	29.4
72.5°	14.7	30.6	28.2	25.7	25.7
75°	12.3	27.0	24.5	23.3	22.1
77.5°	11.0	23.3	22.1	19.6	18.4
80°	8.6	19.6	19.6	18.4	15.9
82.5°	7.4	17.2	17.2	15.9	13.5
85°	6.1	14.7	15.9	13.5	9.8
87.5°	4.9	13.5	13.5	11.0	7.4
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	11.13	12.41	11.49	12.72	13.03	10.92	12.20	11.29	12.51	12.82
	3H	12.36	13.50	12.74	13.83	14.19	12.51	13.65	12.89	13.98	14.34
	4H	12.82	13.87	13.22	14.22	14.61	13.23	14.29	13.63	14.64	15.02
	6H	13.20	14.17	13.61	14.54	14.93	13.88	14.86	14.30	15.23	15.62
	8H	13.35	14.27	13.78	14.66	15.07	14.21	15.13	14.64	15.53	15.93
	12H	13.51	14.39	13.94	14.77	15.20	14.51	15.39	14.94	15.78	16.21
4H	2H	11.68	12.74	12.08	13.09	13.47	11.51	12.57	11.92	12.92	13.31
	3H	13.37	14.24	13.79	14.65	15.05	13.35	14.22	13.76	14.63	15.03
	4H	14.17	14.95	14.61	15.37	15.82	14.22	15.01	14.66	15.43	15.87
	6H	14.81	15.49	15.28	15.94	16.40	15.07	15.75	15.53	16.19	16.66
	8H	15.07	15.70	15.53	16.15	16.62	15.49	16.13	15.96	16.57	17.05
	12H	15.31	15.87	15.80	16.36	16.83	15.90	16.46	16.38	16.94	17.41
8H	4H	14.59	15.22	15.06	15.67	16.14	14.64	15.28	15.11	15.72	16.19
	6H	15.57	16.09	16.07	16.58	17.06	15.73	16.25	16.23	16.74	17.23
	8H	16.06	16.53	16.58	17.04	17.54	16.32	16.79	16.84	17.30	17.79
	12H	16.56	16.98	17.08	17.47	18.04	16.92	17.33	17.44	17.83	18.40
12H	4H	14.66	15.22	15.14	15.70	16.17	14.72	15.28	15.20	15.76	16.24
	6H	15.74	16.20	16.26	16.72	17.21	15.89	16.36	16.42	16.88	17.37
	8H	16.38	16.79	16.89	17.28	17.85	16.60	17.02	17.12	17.51	18.08