

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: P1058596

Luminaire Tested: S122RDR-H865D950-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058596  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H865D950-X4F0-XX-UDD-WVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

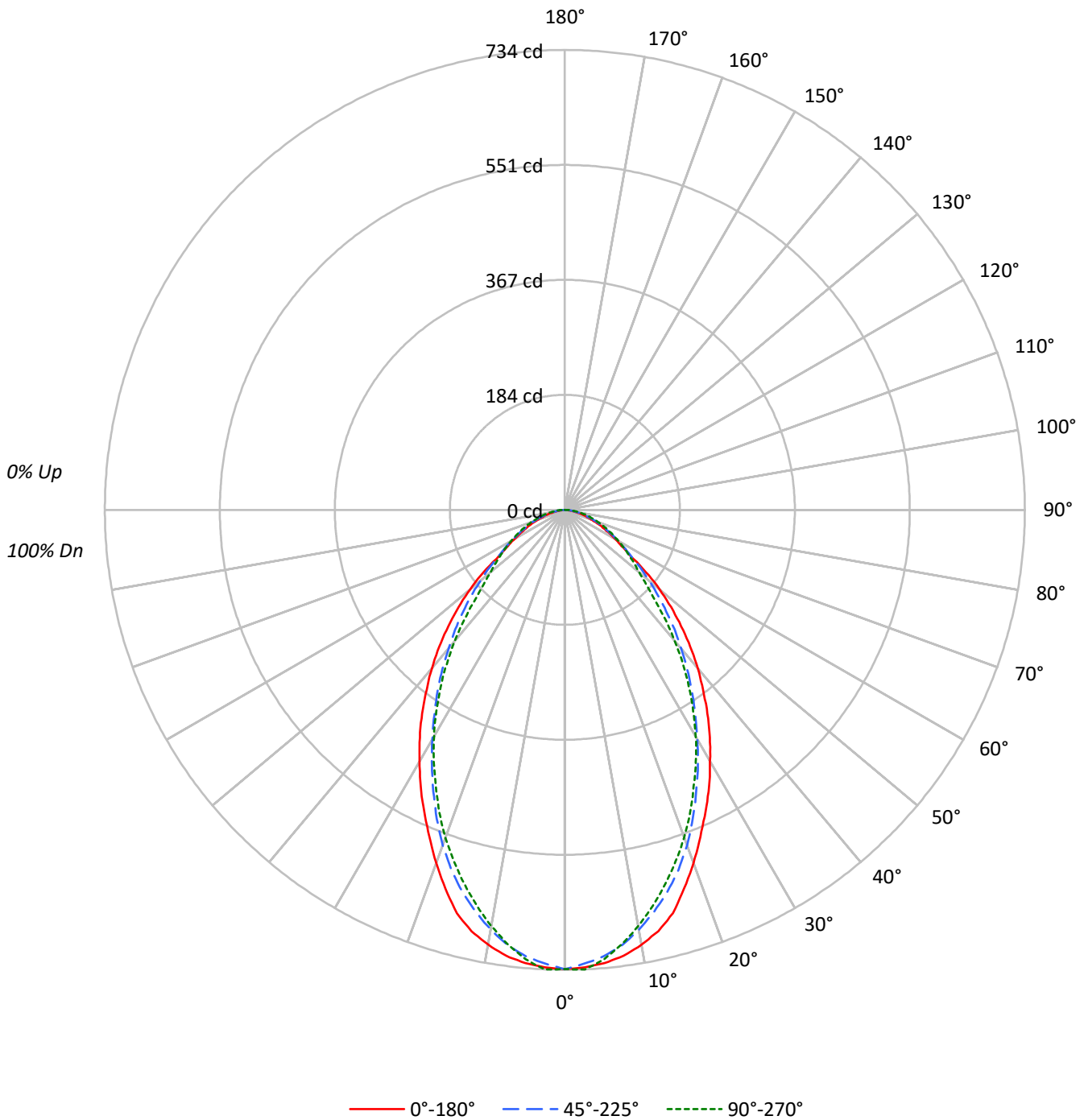
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1113.2 lumens  
Efficiency: N/A  
Efficacy: 35.7 lumens/watt  
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

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

	0°	45°	90°
0°	13526	13526	13526
5°	13448	13251	13338
10°	13208	12749	12640
15°	12731	12062	11817
20°	11780	11185	10932
25°	10811	10099	9909
30°	9872	9002	8902
35°	8938	7965	7783
40°	7956	6945	6578
45°	6853	5971	5269
50°	5661	5027	4424
55°	4092	4169	3980
60°	3403	3576	3617
65°	2904	3109	3314
70°	2395	2773	3021
75°	1996	2331	2745
80°	1488	1860	2476
85°	487	995	2223

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6853 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.7	6.1
10°-20°	178.4	16.0
20°-30°	230.9	20.7
30°-40°	226.5	20.3
40°-50°	178.3	16.0
50°-60°	116.9	10.5
60°-70°	71.2	6.4
70°-80°	35.6	3.2
80°-90°	7.7	0.7
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°	477.1	42.9
0°-40°	703.6	63.2
0°-60°	998.8	89.7
0°-90°	1113.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1113.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	733	733	733	733	733	
5°	726	726	715	720	720	69
15°	666	657	631	623	619	186
25°	531	514	496	494	487	244
35°	397	375	354	352	346	247
45°	263	246	229	212	202	202
55°	127	134	130	125	124	121
65°	66	68	71	75	76	66
75°	28	29	33	37	38	30
85°	2	4	5	8	10	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	733.0	733.0	733.0	733.0	733.0
2.5°	730.6	731.8	724.8	731.8	734.1
5°	726.0	726.0	715.4	720.1	720.1
7.5°	717.8	716.6	700.3	700.3	699.1
10°	704.9	700.3	680.4	676.9	674.6
12.5°	688.6	680.4	657.1	651.3	647.8
15°	666.4	657.1	631.4	623.2	618.6
17.5°	633.7	624.4	602.2	592.9	588.2
20°	599.9	585.9	569.6	561.4	556.7
22.5°	564.9	548.5	533.4	527.5	522.9
25°	531.0	513.5	496.0	493.7	486.7
27.5°	498.4	477.4	459.8	458.7	452.8
30°	463.3	441.2	422.5	423.7	417.8
32.5°	430.7	409.7	387.5	388.7	381.6
35°	396.8	374.6	353.6	352.5	345.5
37.5°	361.8	340.8	321.0	316.3	309.3
40°	330.3	309.3	288.3	280.1	273.1
42.5°	296.4	277.8	259.1	246.3	236.9
45°	262.6	246.3	228.8	212.4	201.9
47.5°	229.9	217.1	201.9	182.1	175.1
50°	197.2	187.9	175.1	157.6	154.1
52.5°	163.4	159.9	151.7	140.1	138.9
55°	127.2	134.2	129.6	124.9	123.7
57.5°	107.4	108.5	112.0	110.9	110.9
60°	92.2	92.2	96.9	98.0	98.0
62.5°	78.2	79.4	84.0	86.4	86.4
65°	66.5	67.7	71.2	74.7	75.9
67.5°	54.9	57.2	60.7	64.2	65.4
70°	44.4	46.7	51.4	54.9	56.0
72.5°	36.2	37.3	42.0	45.5	46.7
75°	28.0	29.2	32.7	37.3	38.5
77.5°	19.8	22.2	25.7	29.2	31.5
80°	14.0	15.2	17.5	22.2	23.3
82.5°	8.2	9.3	11.7	15.2	16.3
85°	2.3	3.5	4.7	8.2	10.5
87.5°	0.0	0.0	0.0	2.3	4.7
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	15.17	16.57	15.53	16.88	17.19	15.35	16.75	15.72	17.06	17.38
	3H	16.30	17.55	16.68	17.88	18.24	16.81	18.06	17.19	18.39	18.75
	4H	16.66	17.82	17.06	18.17	18.55	17.35	18.52	17.75	18.87	19.25
	6H	16.84	17.91	17.25	18.28	18.67	17.77	18.84	18.18	19.21	19.60
	8H	16.87	17.88	17.30	18.27	18.68	17.89	18.91	18.32	19.30	19.70
	12H	16.85	17.82	17.28	18.21	18.64	17.98	18.95	18.41	19.33	19.76
4H	2H	15.63	16.79	16.03	17.14	17.52	15.78	16.94	16.18	17.29	17.67
	3H	16.97	17.93	17.38	18.33	18.73	17.45	18.41	17.86	18.81	19.21
	4H	17.41	18.27	17.85	18.69	19.13	18.11	18.97	18.55	19.39	19.83
	6H	17.68	18.43	18.15	18.87	19.34	18.65	19.39	19.11	19.84	20.30
	8H	17.73	18.42	18.20	18.87	19.34	18.82	19.51	19.28	19.96	20.43
	12H	17.72	18.34	18.21	18.82	19.29	18.94	19.55	19.42	20.04	20.51
8H	4H	17.63	18.32	18.09	18.77	19.24	18.26	18.96	18.73	19.40	19.87
	6H	17.97	18.54	18.47	19.04	19.52	18.90	19.46	19.40	19.96	20.44
	8H	18.05	18.56	18.57	19.08	19.57	19.13	19.64	19.65	20.15	20.64
	12H	18.07	18.52	18.58	19.01	19.58	19.31	19.76	19.83	20.26	20.83
12H	4H	17.64	18.25	18.12	18.74	19.21	18.25	18.87	18.73	19.35	19.82
	6H	18.00	18.51	18.52	19.02	19.51	18.89	19.40	19.41	19.91	20.40
	8H	18.12	18.57	18.63	19.06	19.63	19.17	19.62	19.68	20.11	20.68