

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1057791

Luminaire Tested: S122RDRP-S1005D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057791  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S1005D830-X4F0-XX-UDD-BVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

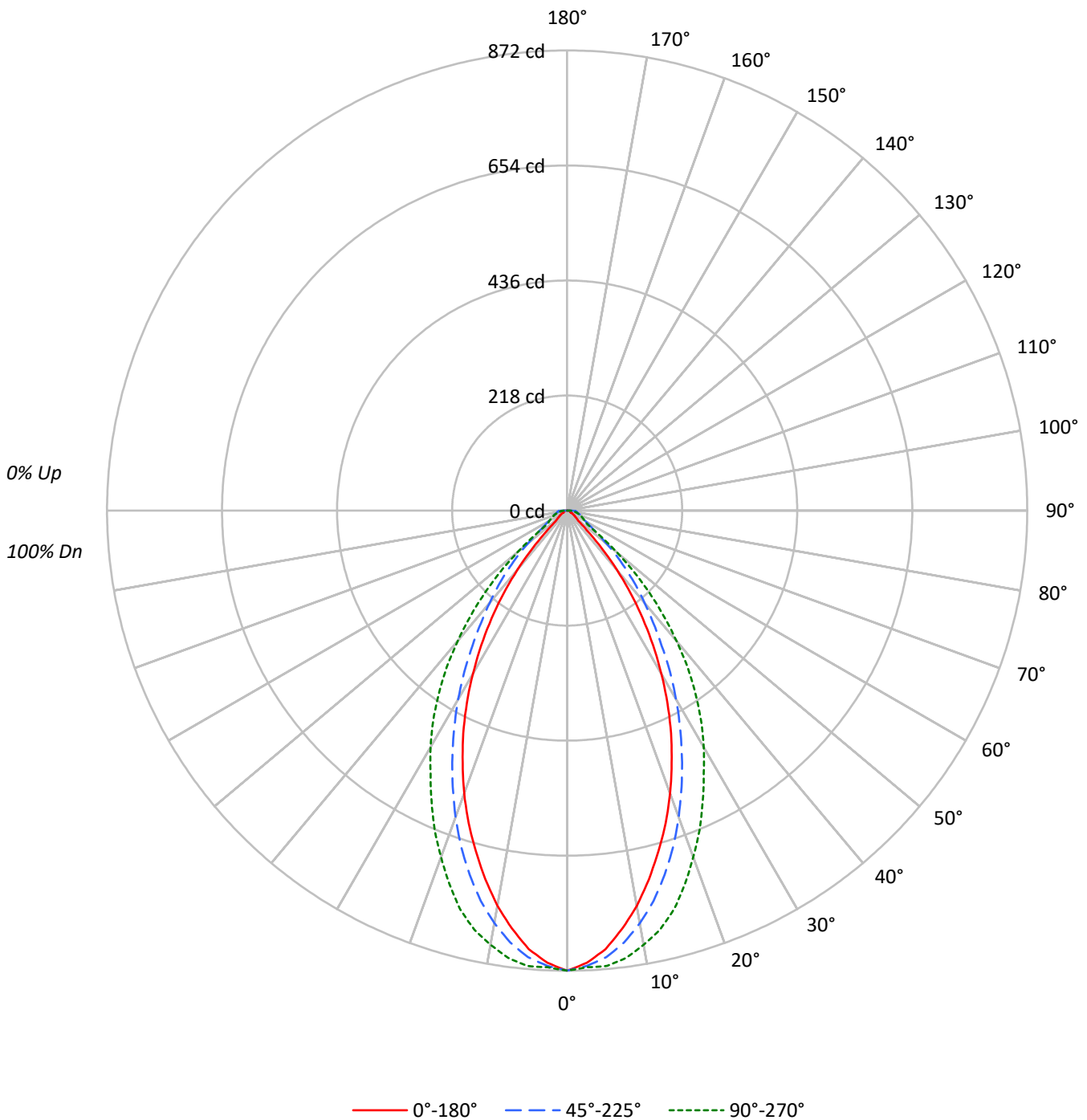
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 948.8 lumens  
Efficiency: N/A  
Efficacy: 22.7 lumens/watt  
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90					90			
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81					81			
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74					74			
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67					67			
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61					61			
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56					56			
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52					52			
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48					48			
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45					45			
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42					42			

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

	0°	45°	90°
0°	16085	16085	16085
5°	15450	15733	16045
10°	14244	14870	15655
15°	12763	13642	14948
20°	11203	12134	13722
25°	9486	10479	12381
30°	7609	8798	11026
35°	5625	7037	9551
40°	3529	5509	7761
45°	1383	4149	5751
50°	680	2802	3522
55°	537	1840	1570
60°	413	1491	1443
65°	306	1402	1402
70°	378	1430	1430
75°	399	1590	1490
80°	595	2072	1626
85°	1186	3536	2371

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 87.5°  
 Luminance: 6472 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.6	8.4
10°-20°	201.3	21.2
20°-30°	240.8	25.4
30°-40°	202.7	21.4
40°-50°	115.4	12.2
50°-60°	45.5	4.8
60°-70°	28.7	3.0
70°-80°	21.3	2.2
80°-90°	13.5	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°	521.7	55.0
0°-40°	724.4	76.3
0°-60°	885.3	93.3
0°-90°	948.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	948.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	872	872	872	872	872	
5°	834	852	849	859	866	77
15°	668	692	714	756	782	186
25°	466	487	515	568	608	212
35°	250	272	312	379	424	155
45°	53	94	159	200	220	50
55°	17	36	57	59	49	15
65°	7	32	32	31	32	8
75°	6	22	22	21	21	6
85°	6	15	17	15	11	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	871.7	871.7	871.7	871.7	871.7
2.5°	857.8	873.1	863.4	864.8	866.2
5°	834.1	852.2	849.4	859.2	866.2
7.5°	799.2	818.7	825.7	842.5	855.0
10°	760.2	782.5	793.6	820.1	835.5
12.5°	715.5	740.6	757.4	790.8	813.2
15°	668.1	691.8	714.1	756.0	782.5
17.5°	620.7	644.4	668.1	714.1	742.0
20°	570.5	592.8	617.9	666.7	698.8
22.5°	517.5	541.2	566.3	616.5	655.5
25°	465.9	486.8	514.7	567.7	608.1
27.5°	411.5	432.4	463.1	517.5	560.7
30°	357.1	378.0	412.9	468.6	517.5
32.5°	302.7	325.0	362.6	424.0	472.8
35°	249.7	272.0	312.4	379.4	424.0
37.5°	198.1	223.2	267.8	333.4	375.2
40°	146.5	175.7	228.7	287.3	322.2
42.5°	97.6	133.9	192.5	241.3	270.6
45°	53.0	93.5	159.0	199.5	220.4
47.5°	29.3	60.0	126.9	159.0	171.6
50°	23.7	41.8	97.6	121.3	122.7
52.5°	19.5	37.7	72.5	86.5	79.5
55°	16.7	36.3	57.2	58.6	48.8
57.5°	13.9	34.9	47.4	41.8	41.8
60°	11.2	34.9	40.4	37.7	39.1
62.5°	8.4	34.9	36.3	33.5	34.9
65°	7.0	32.1	32.1	30.7	32.1
67.5°	7.0	29.3	29.3	27.9	29.3
70°	7.0	27.9	26.5	26.5	26.5
72.5°	5.6	25.1	25.1	23.7	23.7
75°	5.6	22.3	22.3	20.9	20.9
77.5°	5.6	20.9	20.9	19.5	18.1
80°	5.6	18.1	19.5	18.1	15.3
82.5°	5.6	16.7	18.1	16.7	12.6
85°	5.6	15.3	16.7	15.3	11.2
87.5°	4.2	15.3	15.3	12.6	8.4
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	7.35	8.57	7.71	8.88	9.20	9.36	10.58	9.73	10.89	11.21
	3H	8.89	9.98	9.27	10.31	10.67	11.34	12.42	11.72	12.75	13.12
	4H	9.45	10.46	9.85	10.81	11.20	12.25	13.26	12.66	13.61	14.00
	6H	10.00	10.93	10.42	11.31	11.70	13.13	14.06	13.55	14.43	14.83
	8H	10.30	11.18	10.73	11.57	11.98	13.54	14.42	13.97	14.81	15.22
	12H	10.66	11.50	11.09	11.88	12.32	13.98	14.82	14.42	15.21	15.64
4H	2H	8.53	9.54	8.94	9.90	10.28	9.98	10.99	10.39	11.35	11.73
	3H	10.73	11.57	11.15	11.97	12.38	12.23	13.06	12.64	13.47	13.87
	4H	11.78	12.53	12.22	12.95	13.40	13.30	14.05	13.74	14.47	14.91
	6H	12.68	13.33	13.14	13.77	14.24	14.41	15.06	14.87	15.50	15.97
	8H	13.06	13.67	13.53	14.12	14.59	14.93	15.54	15.40	15.99	16.46
	12H	13.49	14.02	13.97	14.50	14.98	15.51	16.05	16.00	16.53	17.00
8H	4H	12.58	13.19	13.05	13.64	14.11	13.79	14.40	14.26	14.85	15.32
	6H	13.96	14.46	14.47	14.96	15.44	15.19	15.68	15.69	16.18	16.66
	8H	14.68	15.13	15.21	15.64	16.14	15.93	16.37	16.45	16.89	17.38
	12H	15.43	15.82	15.95	16.32	16.89	16.76	17.15	17.28	17.65	18.22
12H	4H	12.75	13.28	13.23	13.76	14.24	13.89	14.43	14.38	14.91	15.39
	6H	14.29	14.74	14.82	15.26	15.75	15.40	15.85	15.93	16.37	16.86
	8H	15.21	15.60	15.72	16.10	16.67	16.29	16.68	16.81	17.18	17.75