

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: P1058160

Luminaire Tested: S122RDRP-S865D930-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058160  
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-S865D930-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, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

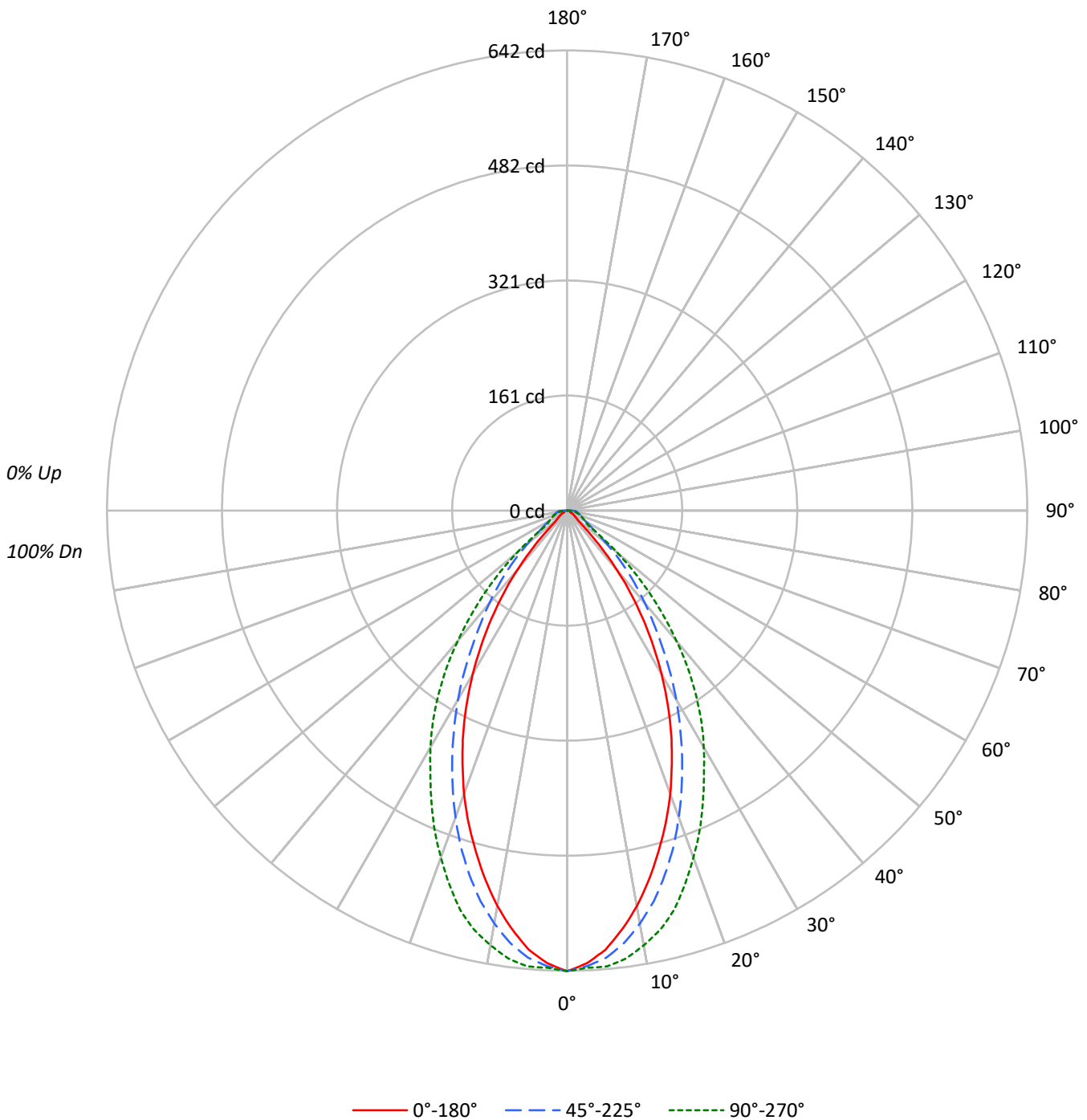
Lumens per Lamp: N/A  
Luminaire Lumens: 699.3 lumens  
Efficiency: N/A  
Efficacy: 20.0 lumens/watt  
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
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°	11856	11856	11856
5°	11388	11597	11825
10°	10498	10959	11538
15°	9407	10054	11017
20°	8257	8943	10113
25°	6992	7723	9125
30°	5608	6484	8127
35°	4145	5188	7039
40°	2599	4061	5721
45°	1020	3058	4238
50°	502	2067	2598
55°	396	1354	1158
60°	303	1100	1063
65°	223	1030	1030
70°	275	1052	1052
75°	292	1169	1098
80°	436	1530	1201
85°	868	2604	1736

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 87.5°  
 Luminance: 4780 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.7	8.4
10°-20°	148.4	21.2
20°-30°	177.5	25.4
30°-40°	149.4	21.4
40°-50°	85.1	12.2
50°-60°	33.5	4.8
60°-70°	21.1	3.0
70°-80°	15.7	2.2
80°-90°	10.0	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°	384.5	55.0
0°-40°	533.9	76.3
0°-60°	652.5	93.3
0°-90°	699.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	699.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	642	642	642	642	642	
5°	615	628	626	633	638	57
15°	492	510	526	557	577	137
25°	343	359	379	418	448	156
35°	184	200	230	280	312	114
45°	39	69	117	147	162	37
55°	12	27	42	43	36	11
65°	5	24	24	23	24	6
75°	4	16	16	15	15	4
85°	4	11	12	11	8	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	642.5	642.5	642.5	642.5	642.5
2.5°	632.2	643.5	636.3	637.4	638.4
5°	614.8	628.1	626.1	633.3	638.4
7.5°	589.1	603.4	608.6	620.9	630.2
10°	560.3	576.7	584.9	604.5	615.8
12.5°	527.4	545.9	558.2	582.9	599.3
15°	492.4	509.9	526.3	557.2	576.7
17.5°	457.5	474.9	492.4	526.3	546.9
20°	420.5	436.9	455.4	491.4	515.0
22.5°	381.4	398.9	417.4	454.4	483.2
25°	343.4	358.8	379.3	418.4	448.2
27.5°	303.3	318.7	341.3	381.4	413.3
30°	263.2	278.6	304.3	345.4	381.4
32.5°	223.1	239.5	267.3	312.5	348.5
35°	184.0	200.5	230.3	279.6	312.5
37.5°	146.0	164.5	197.4	245.7	276.5
40°	107.9	129.5	168.6	211.8	237.5
42.5°	72.0	98.7	141.9	177.8	199.4
45°	39.1	68.9	117.2	147.0	162.4
47.5°	21.6	44.2	93.6	117.2	126.4
50°	17.5	30.8	72.0	89.4	90.5
52.5°	14.4	27.8	53.5	63.7	58.6
55°	12.3	26.7	42.1	43.2	36.0
57.5°	10.3	25.7	35.0	30.8	30.8
60°	8.2	25.7	29.8	27.8	28.8
62.5°	6.2	25.7	26.7	24.7	25.7
65°	5.1	23.6	23.6	22.6	23.6
67.5°	5.1	21.6	21.6	20.6	21.6
70°	5.1	20.6	19.5	19.5	19.5
72.5°	4.1	18.5	18.5	17.5	17.5
75°	4.1	16.4	16.4	15.4	15.4
77.5°	4.1	15.4	15.4	14.4	13.4
80°	4.1	13.4	14.4	13.4	11.3
82.5°	4.1	12.3	13.4	12.3	9.3
85°	4.1	11.3	12.3	11.3	8.2
87.5°	3.1	11.3	11.3	9.3	6.2
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	6.28	7.51	6.65	7.82	8.13	8.30	9.52	8.66	9.83	10.15
	3H	7.83	8.91	8.21	9.24	9.61	10.28	11.36	10.66	11.69	12.06
	4H	8.38	9.39	8.78	9.74	10.13	11.19	12.20	11.60	12.55	12.94
	6H	8.93	9.86	9.35	10.24	10.63	12.08	13.01	12.49	13.38	13.77
	8H	9.23	10.11	9.66	10.50	10.91	12.48	13.36	12.92	13.76	14.16
	12H	9.59	10.43	10.02	10.81	11.24	12.93	13.77	13.36	14.15	14.58
4H	2H	7.47	8.48	7.87	8.83	9.21	8.92	9.93	9.32	10.28	10.67
	3H	9.67	10.50	10.08	10.91	11.31	11.17	12.00	11.58	12.41	12.81
	4H	10.72	11.46	11.15	11.88	12.33	12.24	12.99	12.67	13.41	13.85
	6H	11.61	12.26	12.08	12.71	13.18	13.35	14.00	13.82	14.45	14.92
	8H	12.00	12.60	12.47	13.05	13.52	13.88	14.48	14.35	14.93	15.40
	12H	12.42	12.95	12.90	13.44	13.91	14.45	14.99	14.94	15.47	15.95
8H	4H	11.52	12.12	11.99	12.57	13.04	12.73	13.34	13.20	13.78	14.26
	6H	12.90	13.40	13.41	13.90	14.38	14.13	14.63	14.64	15.13	15.61
	8H	13.62	14.07	14.14	14.58	15.08	14.87	15.32	15.40	15.83	16.33
	12H	14.37	14.76	14.89	15.26	15.83	15.70	16.10	16.22	16.59	17.16
12H	4H	11.68	12.21	12.17	12.70	13.17	12.83	13.37	13.32	13.85	14.32
	6H	13.23	13.68	13.76	14.20	14.69	14.35	14.80	14.87	15.31	15.81
	8H	14.15	14.54	14.67	15.04	15.61	15.24	15.63	15.75	16.13	16.70