

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: P1058182

Luminaire Tested: S122RDRP-S865D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058182  
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: S122RDRP-S865D940-X4F0-XX-UDD-WVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

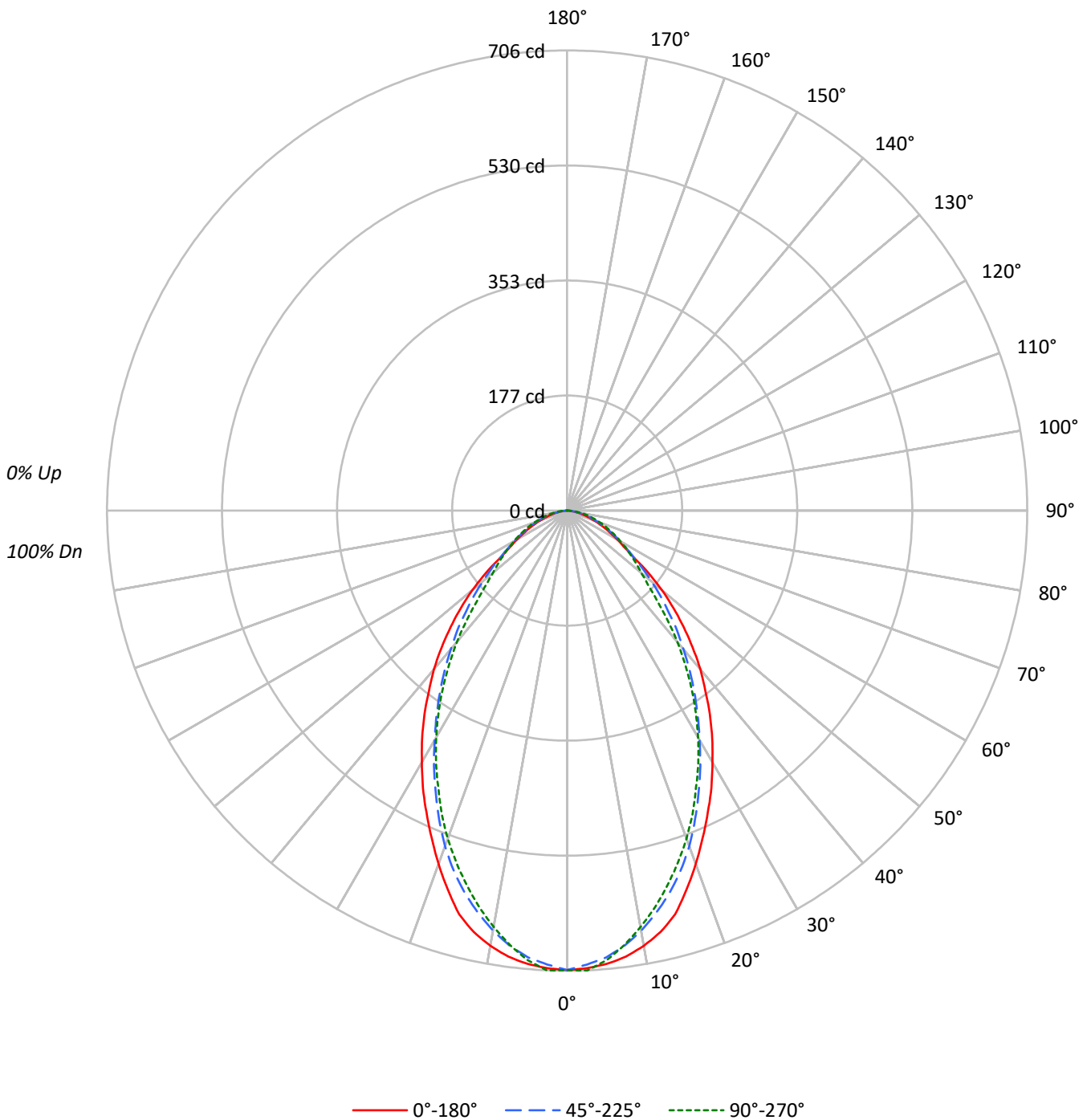
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1070.7 lumens  
Efficiency: N/A  
Efficacy: 30.6 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): 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	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°	13009	13009	13009
5°	12933	12746	12829
10°	12704	12263	12157
15°	12245	11601	11367
20°	11330	10757	10515
25°	10400	9714	9531
30°	9497	8659	8563
35°	8598	7661	7485
40°	7653	6680	6328
45°	6592	5741	5068
50°	5446	4834	4254
55°	3938	4008	3828
60°	3273	3440	3480
65°	2794	2991	3187
70°	2304	2665	2908
75°	1918	2239	2638
80°	1435	1785	2391
85°	466	953	2138

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6592 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.2	6.1
10°-20°	171.6	16.0
20°-30°	222.1	20.7
30°-40°	217.8	20.3
40°-50°	171.5	16.0
50°-60°	112.4	10.5
60°-70°	68.5	6.4
70°-80°	34.2	3.2
80°-90°	7.4	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°	458.9	42.9
0°-40°	676.7	63.2
0°-60°	960.6	89.7
0°-90°	1070.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1070.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	705	705	705	705	705	
5°	698	698	688	693	693	66
15°	641	632	607	599	595	179
25°	511	494	477	475	468	235
35°	382	360	340	339	332	238
45°	253	237	220	204	194	195
55°	122	129	125	120	119	116
65°	64	65	68	72	73	64
75°	27	28	31	36	37	29
85°	2	3	4	8	10	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	705.0	705.0	705.0	705.0	705.0
2.5°	702.7	703.8	697.1	703.8	706.1
5°	698.2	698.2	688.1	692.6	692.6
7.5°	690.4	689.3	673.5	673.5	672.4
10°	678.0	673.5	654.5	651.1	648.8
12.5°	662.3	654.5	632.0	626.4	623.0
15°	641.0	632.0	607.3	599.4	595.0
17.5°	609.5	600.6	579.2	570.3	565.8
20°	577.0	563.5	547.8	540.0	535.5
22.5°	543.3	527.6	513.0	507.4	502.9
25°	510.8	493.9	477.1	474.8	468.1
27.5°	479.3	459.1	442.3	441.2	435.6
30°	445.7	424.3	406.4	407.5	401.9
32.5°	414.2	394.0	372.7	373.8	367.1
35°	381.7	360.3	340.1	339.0	332.3
37.5°	348.0	327.8	308.7	304.2	297.5
40°	317.7	297.5	277.3	269.4	262.7
42.5°	285.1	267.2	249.2	236.9	227.9
45°	252.6	236.9	220.0	204.3	194.2
47.5°	221.1	208.8	194.2	175.1	168.4
50°	189.7	180.7	168.4	151.5	148.2
52.5°	157.2	153.8	145.9	134.7	133.6
55°	122.4	129.1	124.6	120.1	119.0
57.5°	103.3	104.4	107.8	106.6	106.6
60°	88.7	88.7	93.2	94.3	94.3
62.5°	75.2	76.3	80.8	83.1	83.1
65°	64.0	65.1	68.5	71.8	73.0
67.5°	52.8	55.0	58.4	61.7	62.9
70°	42.7	44.9	49.4	52.8	53.9
72.5°	34.8	35.9	40.4	43.8	44.9
75°	26.9	28.1	31.4	35.9	37.0
77.5°	19.1	21.3	24.7	28.1	30.3
80°	13.5	14.6	16.8	21.3	22.5
82.5°	7.9	9.0	11.2	14.6	15.7
85°	2.2	3.4	4.5	7.9	10.1
87.5°	0.0	0.0	0.0	2.2	4.5
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	15.04	16.43	15.40	16.75	17.06	15.21	16.61	15.58	16.92	17.24
	3H	16.17	17.41	16.55	17.74	18.11	16.67	17.92	17.05	18.25	18.61
	4H	16.52	17.68	16.92	18.03	18.42	17.22	18.38	17.62	18.73	19.11
	6H	16.71	17.78	17.12	18.15	18.54	17.63	18.70	18.04	19.07	19.46
	8H	16.73	17.75	17.16	18.14	18.54	17.76	18.77	18.19	19.16	19.57
	12H	16.72	17.69	17.15	18.07	18.50	17.84	18.81	18.27	19.19	19.62
4H	2H	15.49	16.66	15.90	17.01	17.39	15.64	16.80	16.04	17.15	17.53
	3H	16.83	17.79	17.25	18.20	18.60	17.31	18.27	17.73	18.67	19.08
	4H	17.28	18.14	17.71	18.56	19.00	17.98	18.84	18.41	19.26	19.70
	6H	17.55	18.29	18.01	18.74	19.20	18.51	19.26	18.97	19.70	20.17
	8H	17.60	18.29	18.06	18.74	19.20	18.68	19.38	19.15	19.82	20.29
	12H	17.59	18.21	18.07	18.69	19.16	18.80	19.42	19.29	19.90	20.37
8H	4H	17.49	18.19	17.96	18.63	19.10	18.13	18.82	18.59	19.27	19.74
	6H	17.84	18.41	18.34	18.90	19.38	18.76	19.33	19.26	19.82	20.30
	8H	17.92	18.43	18.44	18.94	19.43	18.99	19.50	19.51	20.02	20.51
	12H	17.93	18.38	18.45	18.88	19.45	19.18	19.63	19.69	20.12	20.69
12H	4H	17.50	18.12	17.99	18.60	19.07	18.11	18.73	18.60	19.21	19.68
	6H	17.86	18.37	18.38	18.89	19.38	18.75	19.26	19.27	19.78	20.27
	8H	17.98	18.43	18.49	18.92	19.49	19.03	19.48	19.54	19.97	20.54