

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: P1439712

Luminaire Tested: S122DR-S865D935-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1439712  
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2602-702-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/2/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DR-S865D935-X4F0-XX-UDD-FLB-W  
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

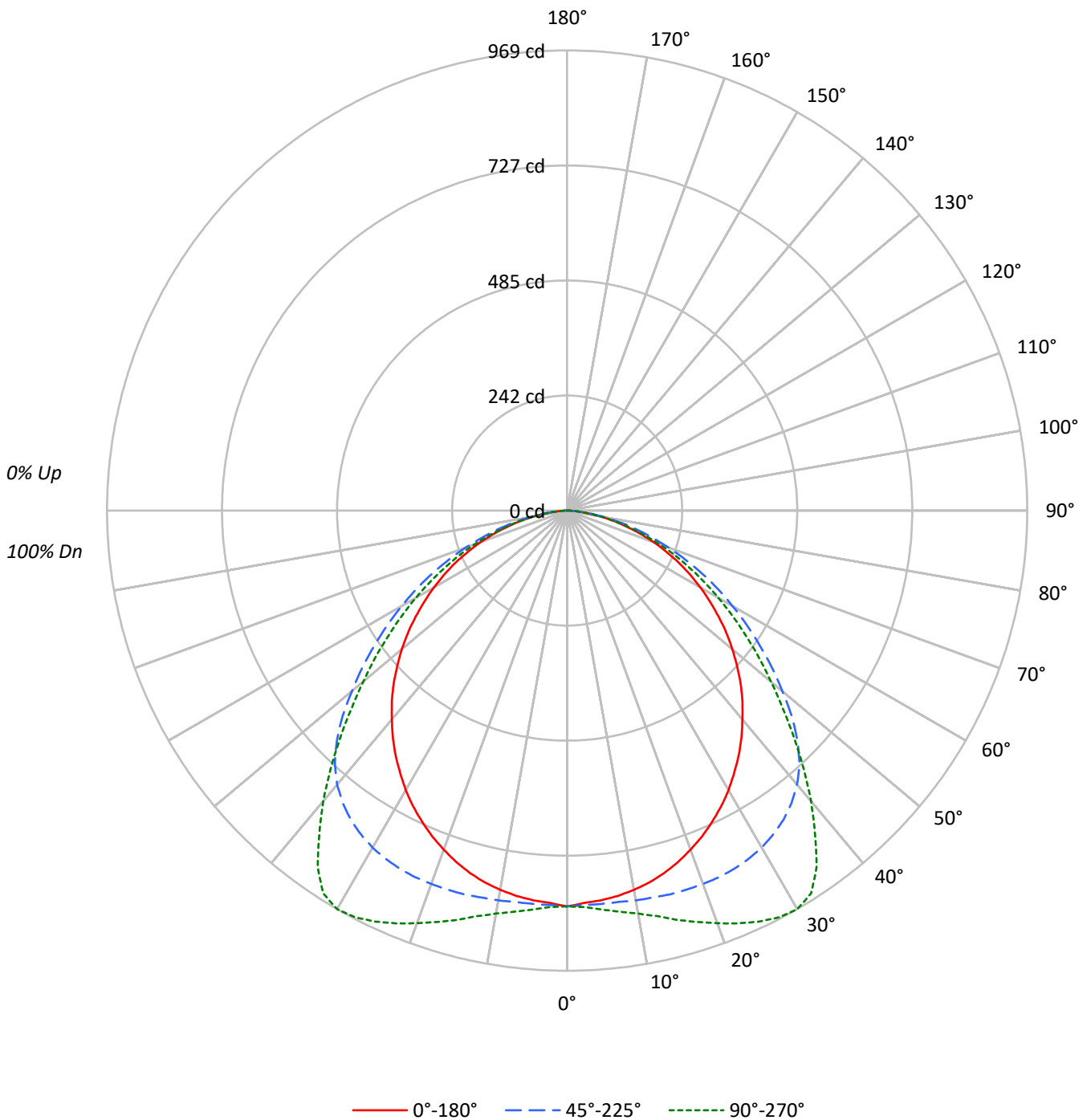
Lumens per Lamp: N/A  
Luminaire Lumens: 2563.4 lumens  
Efficiency: N/A  
Efficacy: 73.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct

Input Watts (W): 34.7  
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	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	91	85	79	97	90	84	78	86	81	76	83	79	75	80	76	73	71
3	91	80	72	66	88	79	71	66	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	61	53	47	59	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25

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

	0°	45°	90°
0°	15791	15791	15791
5°	15665	15810	16036
10°	15596	16035	16577
15°	15497	16411	17496
20°	15319	16869	18640
25°	15112	17401	19962
30°	14867	17926	21199
35°	14564	18376	21181
40°	14206	18631	19756
45°	13852	18383	18091
50°	13384	17443	16515
55°	12852	16360	15178
60°	12281	15236	13963
65°	11611	14041	12732
70°	10685	12547	11406
75°	9443	10870	9838
80°	7801	8630	7801
85°	5174	5652	5413

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 18528 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.7	3.1
10°-20°	238.1	9.3
20°-30°	386.3	15.1
30°-40°	488.8	19.1
40°-50°	489.5	19.1
50°-60°	410.0	16.0
60°-70°	288.9	11.3
70°-80°	149.1	5.8
80°-90°	33.0	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°	704.1	27.5
0°-40°	1192.9	46.5
0°-60°	2092.4	81.6
0°-90°	2563.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2563.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	834	834	834	834	834	
5°	824	838	831	836	843	78
15°	790	813	837	870	892	223
25°	723	762	832	914	955	333
35°	630	681	794	897	916	394
45°	517	571	686	692	675	398
55°	389	437	495	475	460	348
65°	259	288	313	294	284	256
75°	129	142	148	138	134	137
85°	24	26	26	26	25	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	833.5	833.5	833.5	833.5	833.5
2.5°	827.0	840.0	831.3	832.4	835.6
5°	823.7	837.8	831.3	835.6	843.2
7.5°	818.3	833.5	831.3	840.0	851.9
10°	810.7	828.1	833.5	848.6	861.7
12.5°	802.0	820.5	834.6	858.4	874.7
15°	790.1	812.9	836.7	870.3	892.0
17.5°	776.0	803.1	836.7	883.3	908.3
20°	759.8	791.2	836.7	894.2	924.5
22.5°	742.4	777.1	835.6	903.9	940.8
25°	722.9	761.9	832.4	913.7	954.9
27.5°	702.3	744.6	827.0	921.3	965.7
30°	679.6	725.1	819.4	924.5	969.0
32.5°	654.6	704.5	808.5	918.0	955.9
35°	629.7	680.7	794.5	897.4	915.8
37.5°	602.6	655.7	776.0	857.3	857.3
40°	574.4	628.6	753.3	802.0	798.8
42.5°	546.3	600.4	724.0	747.9	737.0
45°	517.0	571.2	686.1	691.5	675.2
47.5°	485.6	538.7	641.6	634.0	615.6
50°	454.1	506.2	591.8	578.8	560.3
52.5°	422.7	472.6	544.1	525.7	509.4
55°	389.1	436.8	495.3	474.7	459.5
57.5°	356.6	401.0	448.7	425.9	412.9
60°	324.1	364.2	402.1	380.4	368.5
62.5°	291.6	326.2	357.7	336.0	325.2
65°	259.0	288.3	313.2	293.7	284.0
67.5°	225.4	251.5	268.8	251.5	244.9
70°	192.9	213.5	226.5	211.3	205.9
72.5°	160.4	177.8	186.4	174.5	169.1
75°	129.0	142.0	148.5	137.6	134.4
77.5°	98.6	108.4	111.6	104.0	99.7
80°	71.5	77.0	79.1	73.7	71.5
82.5°	44.4	48.8	50.9	46.6	45.5
85°	23.8	26.0	26.0	26.0	24.9
87.5°	8.7	10.8	10.8	10.8	9.8
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	21.07	22.68	21.44	23.00	23.31	21.58	23.20	21.95	23.51	23.83
	3H	22.64	24.10	23.02	24.42	24.78	23.05	24.51	23.43	24.83	25.19
	4H	23.18	24.55	23.58	24.89	25.27	23.55	24.91	23.94	25.26	25.64
	6H	23.52	24.79	23.93	25.15	25.54	23.85	25.11	24.26	25.48	25.87
	8H	23.60	24.81	24.03	25.20	25.60	23.92	25.13	24.34	25.51	25.91
	12H	23.64	24.80	24.07	25.18	25.61	23.95	25.11	24.38	25.49	25.92
4H	2H	21.83	23.19	22.22	23.54	23.92	22.22	23.59	22.62	23.94	24.31
	3H	23.60	24.74	24.01	25.14	25.54	23.89	25.03	24.30	25.43	25.83
	4H	24.25	25.27	24.68	25.69	26.12	24.48	25.51	24.92	25.93	26.36
	6H	24.69	25.58	25.14	26.02	26.48	24.88	25.78	25.34	26.22	26.67
	8H	24.80	25.64	25.26	26.08	26.54	24.98	25.82	25.44	26.26	26.73
	12H	24.86	25.61	25.34	26.09	26.56	25.04	25.79	25.52	26.27	26.74
8H	4H	24.53	25.36	24.99	25.81	26.27	24.74	25.58	25.20	26.02	26.49
	6H	25.07	25.76	25.56	26.25	26.72	25.23	25.92	25.72	26.41	26.88
	8H	25.23	25.85	25.74	26.36	26.84	25.37	25.99	25.88	26.50	26.99
	12H	25.33	25.88	25.84	26.37	26.93	25.47	26.02	25.98	26.51	27.07
12H	4H	24.54	25.29	25.02	25.77	26.24	24.76	25.51	25.24	25.98	26.45
	6H	25.09	25.72	25.61	26.23	26.71	25.25	25.88	25.76	26.38	26.87
	8H	25.30	25.85	25.81	26.34	26.90	25.44	25.99	25.95	26.48	27.04