

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: P1439711

Luminaire Tested: S122DR-S865D930-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439711
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-S865D930-X4F0-XX-UDD-FLB-W
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

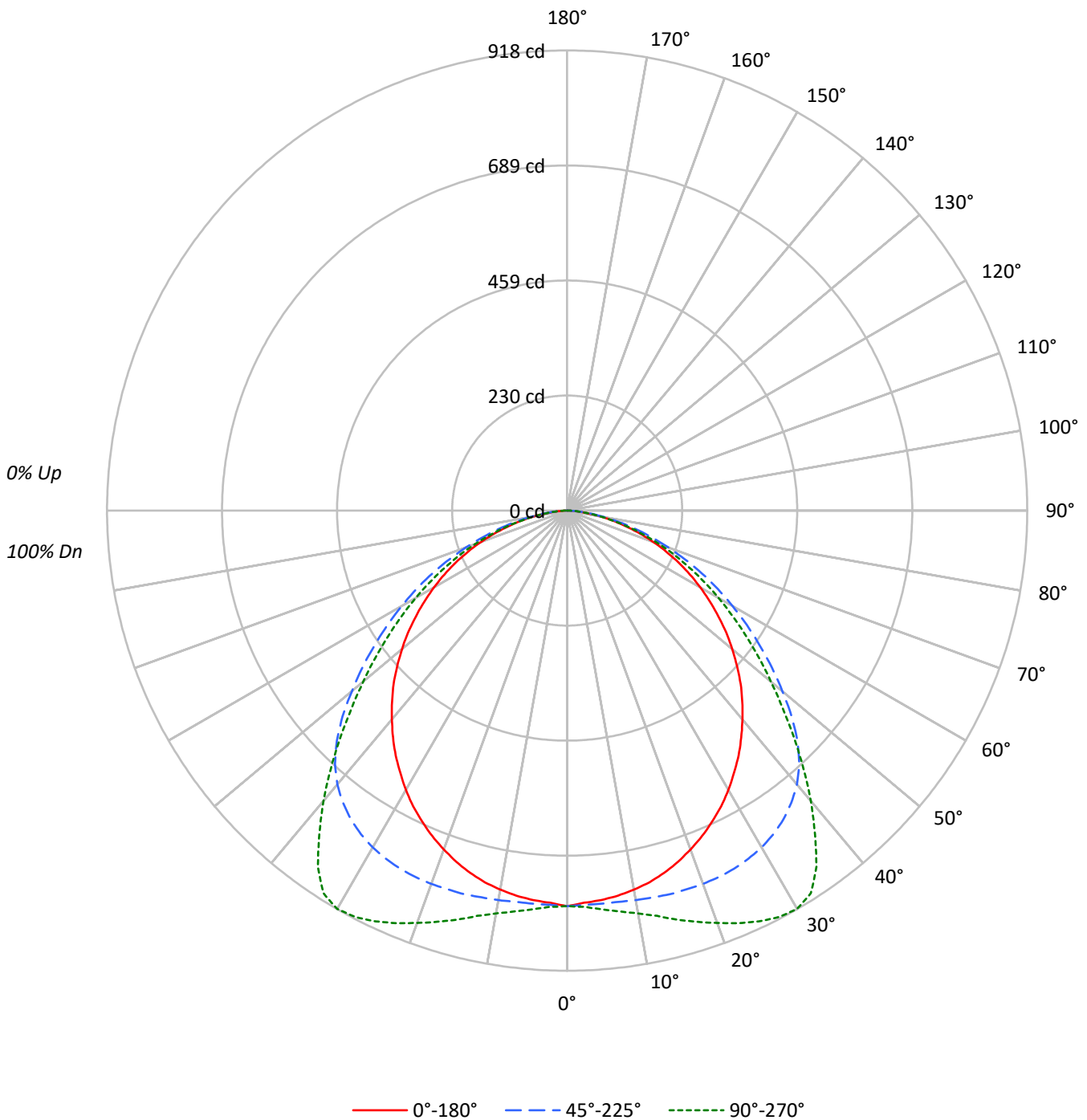
Lumens per Lamp: N/A
Luminaire Lumens: 2427.3 lumens
Efficiency: N/A
Efficacy: 70.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
Input Voltage (V): 120
Input Current (A_{in}): 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°	14952	14952	14952
5°	14834	14971	15186
10°	14769	15183	15696
15°	14675	15540	16568
20°	14504	15974	17650
25°	14311	16477	18902
30°	14078	16974	20072
35°	13792	17400	20057
40°	13452	17641	18707
45°	13118	17408	17132
50°	12674	16518	15639
55°	12169	15492	14375
60°	11629	14429	13220
65°	10997	13296	12055
70°	10120	11882	10802
75°	8938	10292	9319
80°	7386	8172	7386
85°	4913	5348	5130

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 17544 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.5	3.1
10°-20°	225.4	9.3
20°-30°	365.8	15.1
30°-40°	462.8	19.1
40°-50°	463.5	19.1
50°-60°	388.2	16.0
60°-70°	273.6	11.3
70°-80°	141.1	5.8
80°-90°	31.3	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°	666.7	27.5
0°-40°	1129.5	46.5
0°-60°	1981.3	81.6
0°-90°	2427.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2427.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	789	789	789	789	789	
5°	780	793	787	791	798	74
15°	748	770	792	824	845	211
25°	685	722	788	865	904	315
35°	596	644	752	850	867	373
45°	490	541	650	655	639	377
55°	368	414	469	450	435	330
65°	245	273	297	278	269	242
75°	122	134	141	130	127	130
85°	23	25	25	25	24	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	789.2	789.2	789.2	789.2	789.2
2.5°	783.1	795.4	787.2	788.2	791.3
5°	780.0	793.3	787.2	791.3	798.5
7.5°	774.9	789.2	787.2	795.4	806.7
10°	767.7	784.1	789.2	803.6	815.9
12.5°	759.5	776.9	790.3	812.8	828.2
15°	748.2	769.7	792.3	824.1	844.7
17.5°	734.8	760.5	792.3	836.4	860.1
20°	719.4	749.2	792.3	846.7	875.4
22.5°	703.0	735.9	791.3	855.9	890.8
25°	684.6	721.5	788.2	865.2	904.2
27.5°	665.1	705.1	783.1	872.4	914.4
30°	643.5	686.6	775.9	875.4	917.5
32.5°	619.9	667.1	765.6	869.3	905.2
35°	596.3	644.5	752.3	849.8	867.2
37.5°	570.6	620.9	734.8	811.8	811.8
40°	543.9	595.3	713.3	759.5	756.4
42.5°	517.3	568.6	685.6	708.2	697.9
45°	489.6	540.9	649.7	654.8	639.4
47.5°	459.8	510.1	607.6	600.4	582.9
50°	430.0	479.3	560.4	548.1	530.6
52.5°	400.3	447.5	515.2	497.8	482.4
55°	368.4	413.6	469.0	449.5	435.2
57.5°	337.7	379.7	424.9	403.3	391.0
60°	306.9	344.8	380.8	360.2	348.9
62.5°	276.1	308.9	338.7	318.2	307.9
65°	245.3	273.0	296.6	278.1	268.9
67.5°	213.5	238.1	254.5	238.1	231.9
70°	182.7	202.2	214.5	200.1	195.0
72.5°	151.9	168.3	176.5	165.2	160.1
75°	122.1	134.4	140.6	130.3	127.3
77.5°	93.4	102.6	105.7	98.5	94.4
80°	67.7	72.9	74.9	69.8	67.7
82.5°	42.1	46.2	48.2	44.1	43.1
85°	22.6	24.6	24.6	24.6	23.6
87.5°	8.2	10.3	10.3	10.3	9.2
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	20.88	22.49	21.25	22.81	23.12	21.39	23.01	21.76	23.32	23.64
	3H	22.45	23.91	22.83	24.23	24.59	22.86	24.32	23.24	24.64	25.00
	4H	22.99	24.36	23.39	24.70	25.08	23.36	24.72	23.75	25.07	25.45
	6H	23.33	24.60	23.74	24.96	25.35	23.66	24.92	24.07	25.29	25.68
	8H	23.42	24.62	23.84	25.01	25.41	23.73	24.94	24.15	25.32	25.72
	12H	23.45	24.61	23.88	24.99	25.42	23.76	24.92	24.19	25.30	25.73
4H	2H	21.64	23.00	22.04	23.35	23.73	22.03	23.40	22.43	23.75	24.12
	3H	23.41	24.55	23.82	24.95	25.35	23.70	24.84	24.11	25.24	25.64
	4H	24.06	25.08	24.49	25.50	25.93	24.29	25.32	24.73	25.74	26.17
	6H	24.50	25.39	24.95	25.83	26.29	24.69	25.59	25.15	26.03	26.48
	8H	24.61	25.45	25.07	25.89	26.35	24.79	25.63	25.25	26.07	26.54
	12H	24.67	25.42	25.15	25.90	26.37	24.85	25.60	25.33	26.08	26.55
8H	4H	24.34	25.17	24.80	25.62	26.08	24.55	25.39	25.01	25.83	26.30
	6H	24.88	25.57	25.37	26.06	26.53	25.04	25.73	25.53	26.22	26.69
	8H	25.04	25.66	25.55	26.17	26.65	25.18	25.80	25.69	26.31	26.80
	12H	25.14	25.69	25.65	26.18	26.74	25.28	25.83	25.79	26.32	26.88
12H	4H	24.35	25.10	24.83	25.58	26.05	24.57	25.32	25.05	25.80	26.26
	6H	24.90	25.53	25.42	26.04	26.52	25.06	25.69	25.57	26.19	26.68
	8H	25.11	25.66	25.62	26.15	26.71	25.25	25.80	25.76	26.29	26.85