

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: P1439667

Luminaire Tested: S122DR-H865D935-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439667
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-H865D935-X4F0-XX-UDD-FLB-W
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

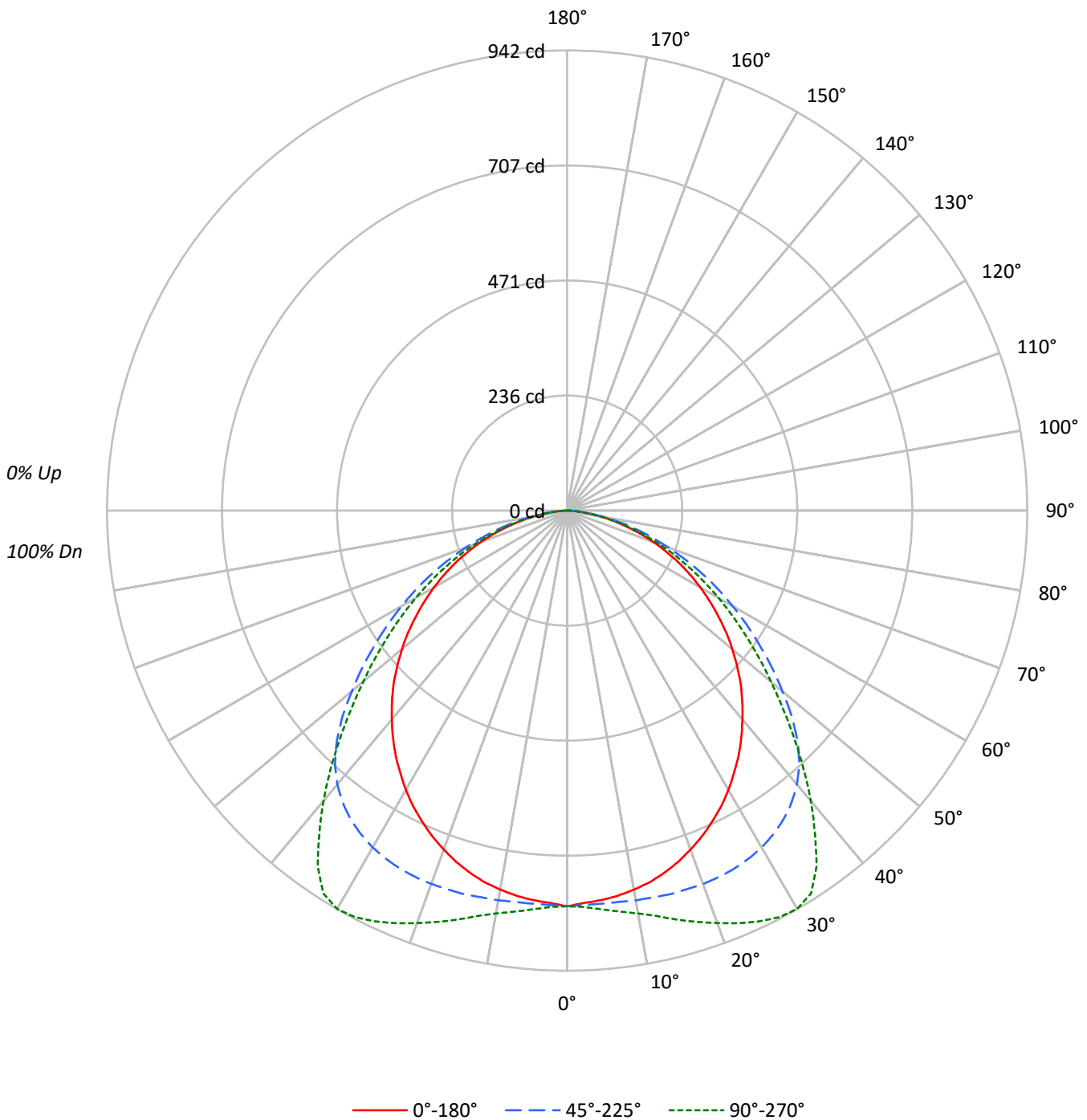
Lumens per Lamp: N/A
Luminaire Lumens: 2491.2 lumens
Efficiency: N/A
Efficacy: 80.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 30.9
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	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	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85					85			
2	100	91	85	79	97	90	84	78	86	81	76	83	79	75	80	76	73	71					71			
3	91	80	72	66	88	79	71	66	76	70	64	73	68	63	71	66	62	60					60			
4	83	71	63	56	81	70	62	56	68	60	55	65	59	54	63	58	53	51					51			
5	76	64	55	48	74	63	54	48	61	53	47	59	52	47	57	51	46	44					44			
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39					39			
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34					34			
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30					30			
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27					27			
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15346	15346	15346
5°	15224	15365	15585
10°	15158	15583	16110
15°	15062	15948	17004
20°	14887	16394	18115
25°	14685	16910	19399
30°	14447	17420	20599
35°	14155	17858	20584
40°	13805	18104	19199
45°	13461	17863	17582
50°	13007	16951	16052
55°	12489	15901	14752
60°	11932	14808	13569
65°	11284	13646	12373
70°	10386	12192	11084
75°	9172	10563	9560
80°	7583	8390	7583
85°	5043	5500	5261

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 18005 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.5	3.1
10°-20°	231.4	9.3
20°-30°	375.4	15.1
30°-40°	475.0	19.1
40°-50°	475.7	19.1
50°-60°	398.4	16.0
60°-70°	280.8	11.3
70°-80°	144.9	5.8
80°-90°	32.1	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°	684.2	27.5
0°-40°	1159.2	46.5
0°-60°	2033.4	81.6
0°-90°	2491.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2491.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	810	810	810	810	810	
5°	800	814	808	812	820	76
15°	768	790	813	846	867	216
25°	702	740	809	888	928	324
35°	612	662	772	872	890	382
45°	502	555	667	672	656	387
55°	378	424	481	461	447	338
65°	252	280	304	285	276	249
75°	125	138	144	134	131	133
85°	23	25	25	25	24	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	810.0	810.0	810.0	810.0	810.0
2.5°	803.7	816.3	807.9	808.9	812.1
5°	800.5	814.2	807.9	812.1	819.5
7.5°	795.2	810.0	807.9	816.3	827.9
10°	787.9	804.7	810.0	824.7	837.4
12.5°	779.4	797.3	811.0	834.2	850.0
15°	767.9	790.0	813.1	845.8	866.9
17.5°	754.2	780.5	813.1	858.4	882.7
20°	738.4	768.9	813.1	869.0	898.5
22.5°	721.5	755.2	812.1	878.4	914.3
25°	702.5	740.5	808.9	887.9	928.0
27.5°	682.5	723.6	803.7	895.3	938.5
30°	660.4	704.7	796.3	898.5	941.6
32.5°	636.2	684.6	785.8	892.1	929.0
35°	612.0	661.5	772.1	872.1	890.0
37.5°	585.6	637.2	754.2	833.2	833.2
40°	558.2	610.9	732.0	779.4	776.3
42.5°	530.9	583.5	703.6	726.8	716.2
45°	502.4	555.1	666.7	672.0	656.2
47.5°	471.9	523.5	623.6	616.2	598.3
50°	441.3	491.9	575.1	562.5	544.6
52.5°	410.8	459.2	528.8	510.8	495.0
55°	378.1	424.5	481.4	461.3	446.6
57.5°	346.5	389.7	436.1	413.9	401.3
60°	314.9	353.9	390.8	369.7	358.1
62.5°	283.3	317.0	347.6	326.5	316.0
65°	251.7	280.2	304.4	285.4	276.0
67.5°	219.1	244.4	261.2	244.4	238.0
70°	187.5	207.5	220.1	205.4	200.1
72.5°	155.9	172.7	181.2	169.6	164.3
75°	125.3	138.0	144.3	133.8	130.6
77.5°	95.8	105.3	108.5	101.1	96.9
80°	69.5	74.8	76.9	71.6	69.5
82.5°	43.2	47.4	49.5	45.3	44.2
85°	23.2	25.3	25.3	25.3	24.2
87.5°	8.4	10.5	10.5	10.5	9.5
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	20.97	22.58	21.34	22.90	23.21	21.49	23.10	21.85	23.41	23.73
	3H	22.54	24.00	22.92	24.32	24.68	22.95	24.41	23.33	24.73	25.09
	4H	23.08	24.45	23.48	24.79	25.17	23.45	24.81	23.84	25.16	25.54
	6H	23.42	24.69	23.83	25.05	25.44	23.75	25.01	24.16	25.38	25.77
	8H	23.51	24.71	23.93	25.10	25.50	23.82	25.03	24.24	25.42	25.81
	12H	23.54	24.70	23.97	25.08	25.51	23.85	25.01	24.28	25.39	25.82
4H	2H	21.73	23.09	22.13	23.44	23.82	22.12	23.49	22.52	23.84	24.21
	3H	23.50	24.64	23.91	25.04	25.44	23.79	24.93	24.20	25.33	25.73
	4H	24.15	25.17	24.58	25.59	26.02	24.39	25.41	24.82	25.83	26.26
	6H	24.59	25.48	25.04	25.93	26.38	24.78	25.68	25.24	26.12	26.58
	8H	24.70	25.54	25.16	25.98	26.44	24.88	25.72	25.34	26.16	26.63
	12H	24.76	25.51	25.24	25.99	26.46	24.94	25.69	25.42	26.17	26.64
8H	4H	24.43	25.27	24.89	25.71	26.17	24.64	25.48	25.10	25.92	26.39
	6H	24.97	25.66	25.46	26.15	26.63	25.13	25.82	25.62	26.31	26.79
	8H	25.13	25.75	25.64	26.26	26.74	25.27	25.89	25.78	26.40	26.89
	12H	25.23	25.78	25.74	26.27	26.83	25.37	25.92	25.88	26.41	26.97
12H	4H	24.44	25.19	24.92	25.67	26.14	24.66	25.41	25.14	25.89	26.36
	6H	25.00	25.62	25.51	26.13	26.61	25.15	25.78	25.66	26.29	26.77
	8H	25.20	25.75	25.71	26.24	26.80	25.34	25.89	25.85	26.38	26.95