

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: P1439707

Luminaire Tested: S122DR-S865D835-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439707
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-S865D835-X4F0-XX-UDD-FLB-W
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

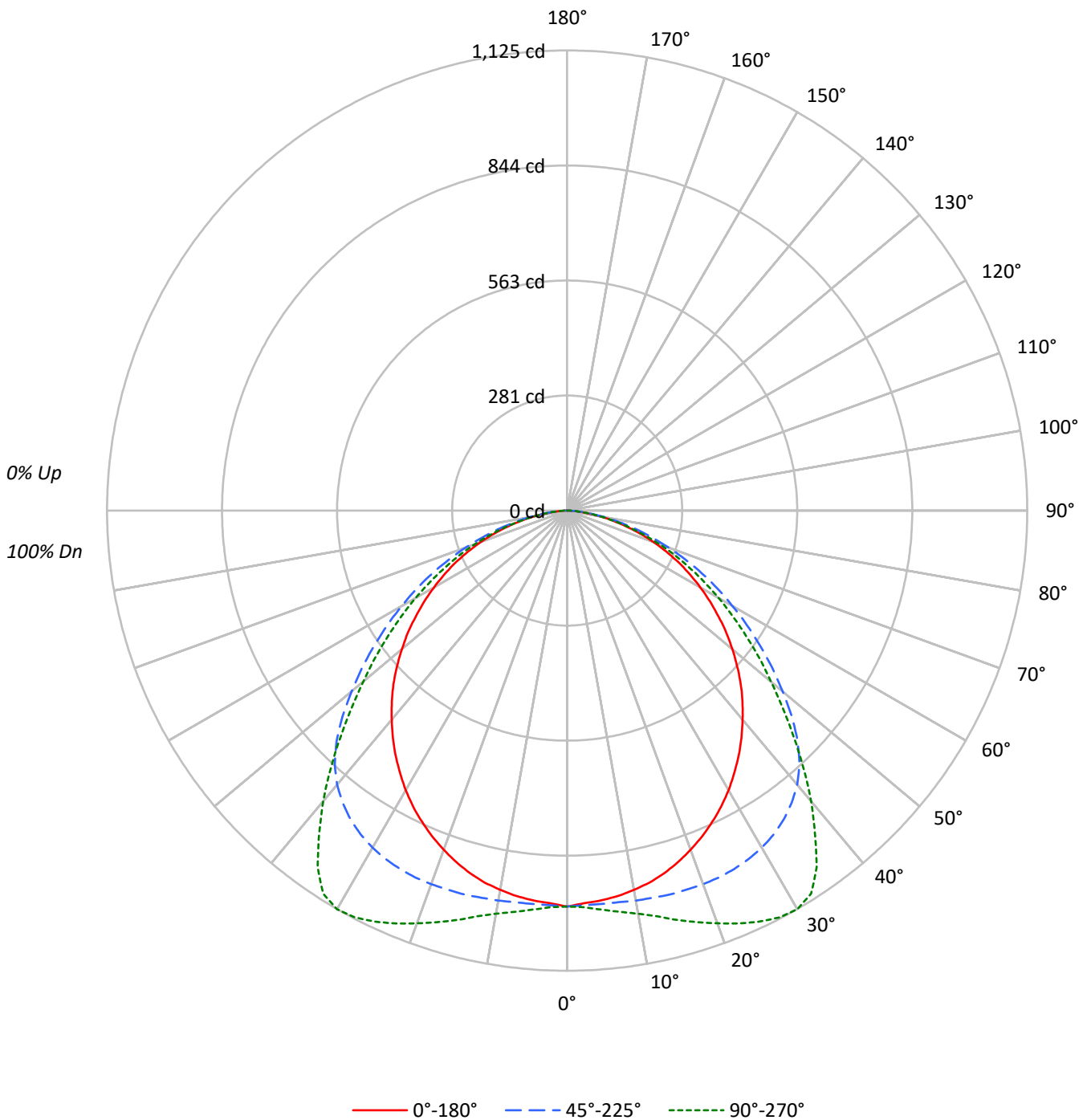
Lumens per Lamp: N/A
Luminaire Lumens: 2977.3 lumens
Efficiency: N/A
Efficacy: 85.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1439707

CATALOG NUMBER: S122DR-S865D835-X4F0-XX-UDD-FLB-W

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°	18340	18340	18340
5°	18195	18362	18626
10°	18115	18623	19254
15°	18000	19061	20320
20°	17791	19593	21650
25°	17551	20210	23183
30°	17267	20820	24620
35°	16916	21341	24602
40°	16501	21638	22946
45°	16089	21349	21011
50°	15545	20258	19182
55°	14927	19003	17629
60°	14262	17695	16218
65°	13489	16309	14785
70°	12414	14574	13250
75°	10966	12627	11427
80°	9067	10027	9067
85°	6021	6565	6304

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 21518 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.6	3.1
10°-20°	276.5	9.3
20°-30°	448.7	15.1
30°-40°	567.7	19.1
40°-50°	568.5	19.1
50°-60°	476.2	16.0
60°-70°	335.6	11.3
70°-80°	173.1	5.8
80°-90°	38.4	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°	817.7	27.5
0°-40°	1385.4	46.5
0°-60°	2430.2	81.6
0°-90°	2977.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2977.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	968	968	968	968	968	
5°	957	973	966	971	979	91
15°	918	944	972	1011	1036	259
25°	840	885	967	1061	1109	387
35°	731	790	923	1042	1064	457
45°	600	663	797	803	784	462
55°	452	507	575	551	534	404
65°	301	335	364	341	330	297
75°	150	165	172	160	156	159
85°	28	30	30	30	29	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	968.0	968.0	968.0	968.0	968.0
2.5°	960.5	975.6	965.5	966.8	970.6
5°	956.7	973.1	965.5	970.6	979.4
7.5°	950.4	968.0	965.5	975.6	989.4
10°	941.6	961.7	968.0	985.7	1000.8
12.5°	931.5	952.9	969.3	997.0	1015.9
15°	917.7	944.1	971.8	1010.8	1036.0
17.5°	901.3	932.8	971.8	1025.9	1054.9
20°	882.4	918.9	971.8	1038.5	1073.8
22.5°	862.3	902.6	970.6	1049.9	1092.7
25°	839.6	885.0	966.8	1061.2	1109.0
27.5°	815.7	864.8	960.5	1070.0	1121.6
30°	789.3	842.2	951.7	1073.8	1125.4
32.5°	760.3	818.2	939.1	1066.2	1110.3
35°	731.4	790.5	922.7	1042.3	1063.7
37.5°	699.9	761.6	901.3	995.7	995.7
40°	667.2	730.1	874.9	931.5	927.8
42.5°	634.4	697.4	840.9	868.6	856.0
45°	600.5	663.4	796.8	803.1	784.2
47.5°	564.0	625.6	745.2	736.4	715.0
50°	527.4	587.9	687.3	672.2	650.8
52.5°	490.9	548.8	631.9	610.5	591.6
55°	451.9	507.3	575.3	551.4	533.7
57.5°	414.2	465.8	521.2	494.7	479.6
60°	376.4	423.0	467.0	441.8	428.0
62.5°	338.6	378.9	415.4	390.2	377.6
65°	300.9	334.8	363.8	341.1	329.8
67.5°	261.8	292.0	312.2	292.0	284.5
70°	224.1	248.0	263.1	245.5	239.2
72.5°	186.3	206.4	216.5	202.7	196.4
75°	149.8	164.9	172.5	159.9	156.1
77.5°	114.6	125.9	129.7	120.8	115.8
80°	83.1	89.4	91.9	85.6	83.1
82.5°	51.6	56.6	59.2	54.1	52.9
85°	27.7	30.2	30.2	30.2	29.0
87.5°	10.1	12.6	12.6	12.6	11.3
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	21.59	23.21	21.96	23.52	23.83	22.10	23.72	22.47	24.03	24.35
	3H	23.16	24.62	23.54	24.94	25.30	23.57	25.03	23.95	25.35	25.71
	4H	23.70	25.07	24.10	25.41	25.79	24.07	25.43	24.46	25.78	26.16
	6H	24.04	25.31	24.45	25.67	26.06	24.37	25.63	24.78	26.00	26.39
	8H	24.13	25.33	24.55	25.72	26.12	24.44	25.65	24.86	26.04	26.43
	12H	24.16	25.32	24.59	25.70	26.13	24.47	25.63	24.90	26.01	26.44
4H	2H	22.35	23.71	22.75	24.06	24.44	22.74	24.11	23.14	24.46	24.83
	3H	24.12	25.26	24.53	25.66	26.06	24.41	25.55	24.82	25.95	26.35
	4H	24.77	25.79	25.20	26.21	26.64	25.00	26.03	25.44	26.45	26.88
	6H	25.21	26.10	25.66	26.55	27.00	25.40	26.30	25.86	26.74	27.19
	8H	25.32	26.16	25.78	26.60	27.06	25.50	26.34	25.96	26.78	27.25
	12H	25.38	26.13	25.86	26.61	27.08	25.56	26.31	26.04	26.79	27.26
8H	4H	25.05	25.88	25.51	26.33	26.79	25.26	26.10	25.72	26.54	27.01
	6H	25.59	26.28	26.08	26.77	27.25	25.75	26.44	26.24	26.93	27.41
	8H	25.75	26.37	26.26	26.88	27.36	25.89	26.51	26.40	27.02	27.51
	12H	25.85	26.40	26.36	26.89	27.45	25.99	26.54	26.50	27.03	27.59
12H	4H	25.06	25.81	25.54	26.29	26.76	25.28	26.03	25.76	26.51	26.98
	6H	25.62	26.24	26.13	26.75	27.23	25.77	26.40	26.28	26.90	27.39
	8H	25.82	26.37	26.33	26.86	27.42	25.96	26.51	26.47	27.00	27.57