

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: P1439670

Luminaire Tested: S122DR-S1005D830-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439670
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-S1005D830-X4F0-XX-UDD-FLB-W
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

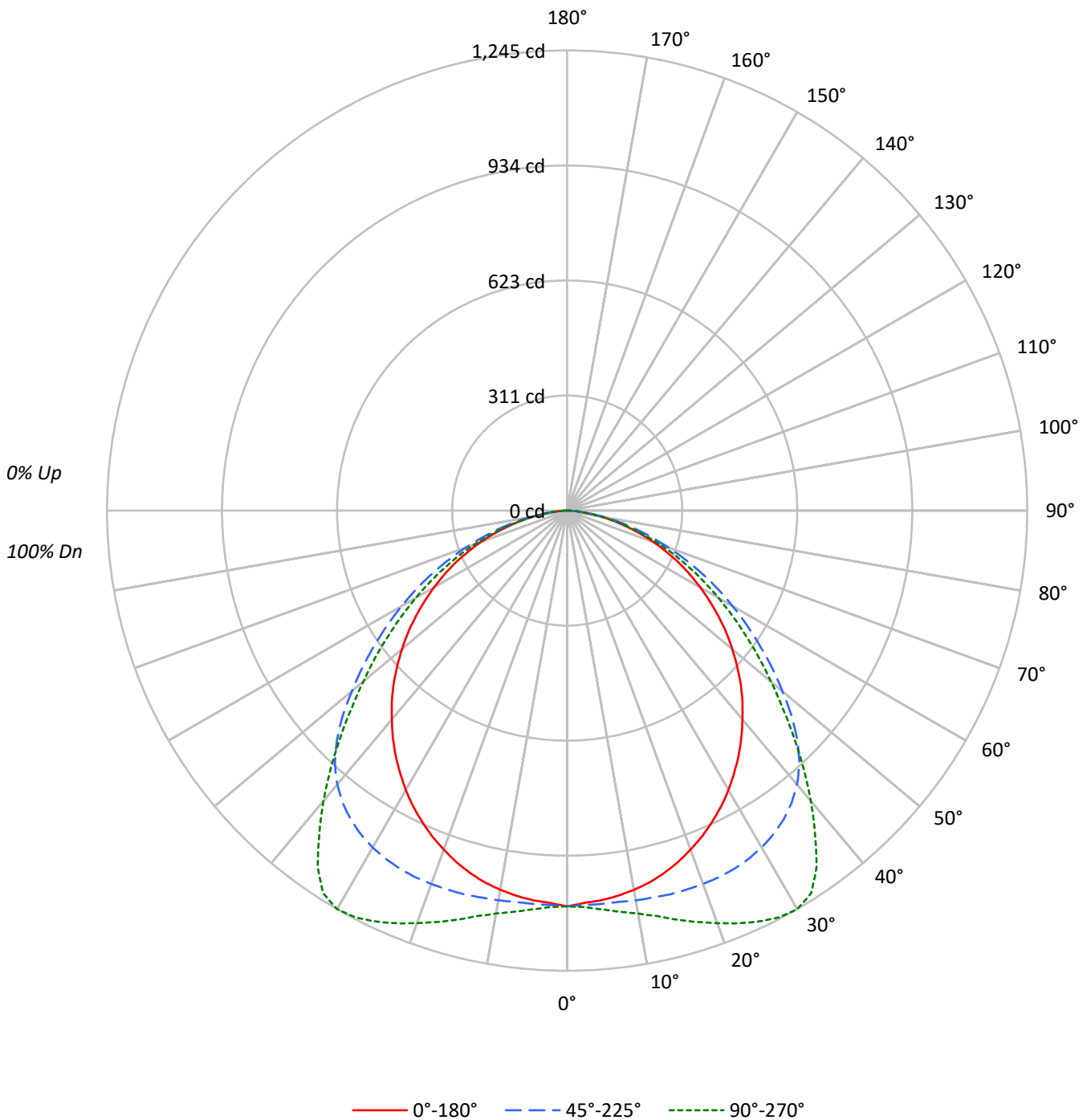
Lumens per Lamp: N/A
Luminaire Lumens: 3293.4 lumens
Efficiency: N/A
Efficacy: 78.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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	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°	20287	20287	20287
5°	20127	20311	20602
10°	20038	20600	21297
15°	19910	21085	22478
20°	19680	21674	23948
25°	19416	22355	25646
30°	19101	23030	27234
35°	18711	23607	27213
40°	18252	23936	25380
45°	17796	23616	23243
50°	17195	22409	21219
55°	16512	21021	19502
60°	15774	19575	17938
65°	14919	18039	16354
70°	13732	16120	14657
75°	12129	13967	12642
80°	10027	11096	10027
85°	6652	7260	6956

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 23803 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.4	3.1
10°-20°	305.9	9.3
20°-30°	496.3	15.1
30°-40°	628.0	19.1
40°-50°	628.9	19.1
50°-60°	526.7	16.0
60°-70°	371.2	11.3
70°-80°	191.5	5.8
80°-90°	42.4	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°	904.6	27.5
0°-40°	1532.5	46.5
0°-60°	2688.2	81.6
0°-90°	3293.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3293.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1071	1071	1071	1071	1071	
5°	1058	1076	1068	1074	1083	101
15°	1015	1044	1075	1118	1146	286
25°	929	979	1069	1174	1227	428
35°	809	874	1021	1153	1177	506
45°	664	734	881	888	868	512
55°	500	561	636	610	590	447
65°	333	370	402	377	365	329
75°	166	182	191	177	173	176
85°	31	33	33	33	32	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1070.8	1070.8	1070.8	1070.8	1070.8
2.5°	1062.5	1079.2	1068.0	1069.4	1073.6
5°	1058.3	1076.4	1068.0	1073.6	1083.3
7.5°	1051.3	1070.8	1068.0	1079.2	1094.5
10°	1041.6	1063.8	1070.8	1090.3	1107.0
12.5°	1030.4	1054.1	1072.2	1102.8	1123.7
15°	1015.1	1044.4	1075.0	1118.2	1146.0
17.5°	997.0	1031.8	1075.0	1134.9	1166.9
20°	976.1	1016.5	1075.0	1148.8	1187.8
22.5°	953.8	998.4	1073.6	1161.3	1208.7
25°	928.8	978.9	1069.4	1173.9	1226.8
27.5°	902.3	956.6	1062.5	1183.6	1240.7
30°	873.1	931.6	1052.7	1187.8	1244.9
32.5°	841.1	905.1	1038.8	1179.4	1228.2
35°	809.0	874.5	1020.7	1153.0	1176.6
37.5°	774.2	842.4	997.0	1101.4	1101.4
40°	738.0	807.6	967.8	1030.4	1026.2
42.5°	701.8	771.4	930.2	960.8	946.9
45°	664.2	733.8	881.4	888.4	867.5
47.5°	623.8	692.1	824.3	814.6	790.9
50°	583.4	650.3	760.3	743.6	719.9
52.5°	543.1	607.1	699.0	675.3	654.5
55°	499.9	561.2	636.4	609.9	590.4
57.5°	458.1	515.2	576.5	547.2	530.5
60°	416.3	467.9	516.6	488.8	473.4
62.5°	374.6	419.1	459.5	431.7	417.7
65°	332.8	370.4	402.4	377.4	364.8
67.5°	289.6	323.1	345.3	323.1	314.7
70°	247.9	274.3	291.0	271.5	264.6
72.5°	206.1	228.4	239.5	224.2	217.2
75°	165.7	182.4	190.8	176.8	172.7
77.5°	126.7	139.2	143.4	133.7	128.1
80°	91.9	98.9	101.7	94.7	91.9
82.5°	57.1	62.7	65.4	59.9	58.5
85°	30.6	33.4	33.4	33.4	32.0
87.5°	11.1	13.9	13.9	13.9	12.5
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	21.94	23.55	22.31	23.87	24.18	22.46	24.07	22.82	24.38	24.70
	3H	23.51	24.97	23.89	25.29	25.65	23.92	25.38	24.30	25.70	26.06
	4H	24.05	25.42	24.45	25.76	26.14	24.42	25.78	24.81	26.13	26.51
	6H	24.39	25.66	24.80	26.02	26.41	24.72	25.98	25.13	26.35	26.74
	8H	24.48	25.68	24.90	26.07	26.47	24.79	26.00	25.21	26.39	26.78
	12H	24.51	25.67	24.94	26.05	26.48	24.82	25.98	25.25	26.36	26.79
4H	2H	22.70	24.06	23.10	24.41	24.79	23.09	24.46	23.49	24.81	25.18
	3H	24.47	25.61	24.88	26.01	26.41	24.76	25.90	25.17	26.30	26.70
	4H	25.12	26.14	25.55	26.56	26.99	25.35	26.38	25.79	26.80	27.23
	6H	25.56	26.45	26.01	26.90	27.35	25.75	26.65	26.21	27.09	27.55
	8H	25.67	26.51	26.13	26.95	27.41	25.85	26.69	26.31	27.13	27.60
	12H	25.73	26.48	26.21	26.96	27.43	25.91	26.66	26.39	27.14	27.61
8H	4H	25.40	26.24	25.86	26.68	27.14	25.61	26.45	26.07	26.89	27.36
	6H	25.94	26.63	26.43	27.12	27.60	26.10	26.79	26.59	27.28	27.76
	8H	26.10	26.72	26.61	27.23	27.71	26.24	26.86	26.75	27.37	27.86
	12H	26.20	26.75	26.71	27.24	27.80	26.34	26.89	26.85	27.38	27.94
12H	4H	25.41	26.16	25.89	26.64	27.11	25.63	26.38	26.11	26.86	27.33
	6H	25.97	26.59	26.48	27.10	27.58	26.12	26.75	26.63	27.26	27.74
	8H	26.17	26.72	26.68	27.21	27.77	26.31	26.86	26.82	27.35	27.92