

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: P1439673

Luminaire Tested: S122DR-S1005D850-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1439673  
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-S1005D850-X4F0-XX-UDD-FLB-W  
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

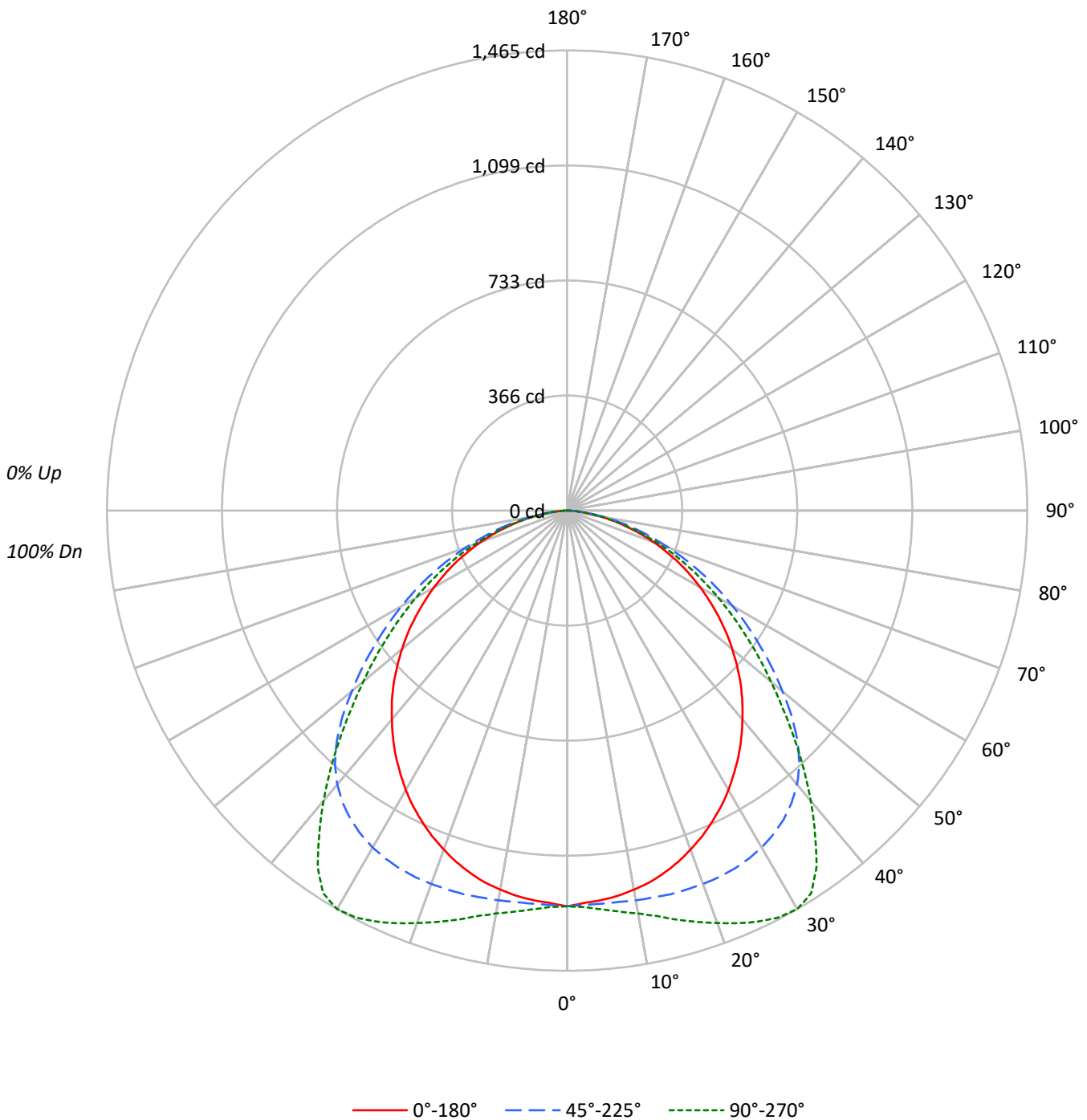
Lumens per Lamp: N/A  
Luminaire Lumens: 3875.0 lumens  
Efficiency: N/A  
Efficacy: 92.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct

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	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°	23870	23870	23870
5°	23681	23898	24243
10°	23576	24238	25058
15°	23427	24808	26448
20°	23156	25501	28176
25°	22844	26304	30173
30°	22474	27097	32043
35°	22016	27775	32019
40°	21475	28162	29864
45°	20939	27788	27348
50°	20234	26368	24965
55°	19429	24730	22947
60°	18563	23031	21109
65°	17555	21227	19245
70°	16153	18967	17244
75°	14274	16434	14874
80°	11794	13049	11794
85°	7826	8543	8195

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 28007 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.5	3.1
10°-20°	359.9	9.3
20°-30°	583.9	15.1
30°-40°	738.9	19.1
40°-50°	740.0	19.1
50°-60°	619.8	16.0
60°-70°	436.8	11.3
70°-80°	225.3	5.8
80°-90°	50.0	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°	1064.3	27.5
0°-40°	1803.2	46.5
0°-60°	3162.9	81.6
0°-90°	3875.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3875.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1260	1260	1260	1260	1260	
5°	1245	1266	1257	1263	1275	118
15°	1194	1229	1265	1316	1348	337
25°	1093	1152	1258	1381	1443	503
35°	952	1029	1201	1357	1384	595
45°	782	863	1037	1045	1021	602
55°	588	660	749	718	695	526
65°	392	436	474	444	429	387
75°	195	215	224	208	203	207
85°	36	39	39	39	38	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1259.9	1259.9	1259.9	1259.9	1259.9
2.5°	1250.1	1269.7	1256.6	1258.3	1263.2
5°	1245.2	1266.5	1256.6	1263.2	1274.7
7.5°	1237.0	1259.9	1256.6	1269.7	1287.8
10°	1225.5	1251.7	1259.9	1282.9	1302.5
12.5°	1212.4	1240.3	1261.6	1297.6	1322.2
15°	1194.4	1228.8	1264.8	1315.6	1348.4
17.5°	1173.1	1214.0	1264.8	1335.3	1373.0
20°	1148.5	1196.0	1264.8	1351.7	1397.5
22.5°	1122.3	1174.7	1263.2	1366.4	1422.1
25°	1092.8	1151.8	1258.3	1381.2	1443.4
27.5°	1061.7	1125.6	1250.1	1392.6	1459.8
30°	1027.3	1096.1	1238.6	1397.5	1464.7
32.5°	989.6	1065.0	1222.2	1387.7	1445.1
35°	951.9	1028.9	1200.9	1356.6	1384.4
37.5°	910.9	991.2	1173.1	1296.0	1296.0
40°	868.3	950.3	1138.7	1212.4	1207.5
42.5°	825.7	907.7	1094.4	1130.5	1114.1
45°	781.5	863.4	1037.1	1045.3	1020.7
47.5°	734.0	814.3	969.9	958.5	930.6
50°	686.5	765.1	894.6	874.9	847.0
52.5°	639.0	714.3	822.5	794.6	770.0
55°	588.2	660.3	748.7	717.6	694.7
57.5°	539.0	606.2	678.3	643.9	624.2
60°	489.9	550.5	607.8	575.1	557.1
62.5°	440.7	493.2	540.7	507.9	491.5
65°	391.6	435.8	473.5	444.0	429.3
67.5°	340.8	380.1	406.3	380.1	370.3
70°	291.6	322.8	342.4	319.5	311.3
72.5°	242.5	268.7	281.8	263.8	255.6
75°	195.0	214.6	224.5	208.1	203.2
77.5°	149.1	163.8	168.8	157.3	150.7
80°	108.1	116.3	119.6	111.4	108.1
82.5°	67.2	73.7	77.0	70.5	68.8
85°	36.0	39.3	39.3	39.3	37.7
87.5°	13.1	16.4	16.4	16.4	14.7
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	22.51	24.12	22.87	24.43	24.75	23.02	24.63	23.39	24.95	25.26
	3H	24.08	25.53	24.46	25.86	26.22	24.49	25.94	24.87	26.27	26.63
	4H	24.61	25.98	25.01	26.33	26.71	24.98	26.35	25.38	26.70	27.07
	6H	24.96	26.22	25.37	26.59	26.98	25.28	26.55	25.69	26.91	27.30
	8H	25.04	26.25	25.47	26.64	27.04	25.36	26.56	25.78	26.95	27.35
	12H	25.08	26.23	25.51	26.61	27.04	25.39	26.55	25.82	26.93	27.36
4H	2H	23.26	24.63	23.66	24.98	25.35	23.66	25.03	24.06	25.37	25.75
	3H	25.03	26.17	25.44	26.57	26.97	25.33	26.47	25.74	26.86	27.26
	4H	25.68	26.71	26.11	27.12	27.56	25.92	26.95	26.35	27.36	27.80
	6H	26.12	27.02	26.58	27.46	27.92	26.32	27.21	26.77	27.65	28.11
	8H	26.23	27.07	26.69	27.51	27.98	26.42	27.25	26.88	27.70	28.16
	12H	26.29	27.04	26.77	27.52	27.99	26.48	27.23	26.96	27.70	28.17
8H	4H	25.96	26.80	26.42	27.24	27.71	26.18	27.02	26.64	27.46	27.92
	6H	26.50	27.20	27.00	27.68	28.16	26.66	27.36	27.16	27.85	28.32
	8H	26.66	27.28	27.17	27.79	28.28	26.81	27.43	27.32	27.94	28.42
	12H	26.76	27.32	27.27	27.81	28.37	26.91	27.46	27.41	27.95	28.51
12H	4H	25.98	26.73	26.46	27.21	27.68	26.19	26.95	26.67	27.42	27.89
	6H	26.53	27.15	27.04	27.66	28.15	26.69	27.31	27.20	27.82	28.31
	8H	26.74	27.29	27.24	27.78	28.34	26.88	27.43	27.39	27.92	28.48