

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: P1217277

Luminaire Tested: S122DRP-H485D850-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217277  
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G3-2511-596-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/9/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DRP-H485D850-X4F0-XX-UDD-G-W  
Description: DEFINE 2, DIRECT RECESSED WITH GRAZE FLUSH OPTIC  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

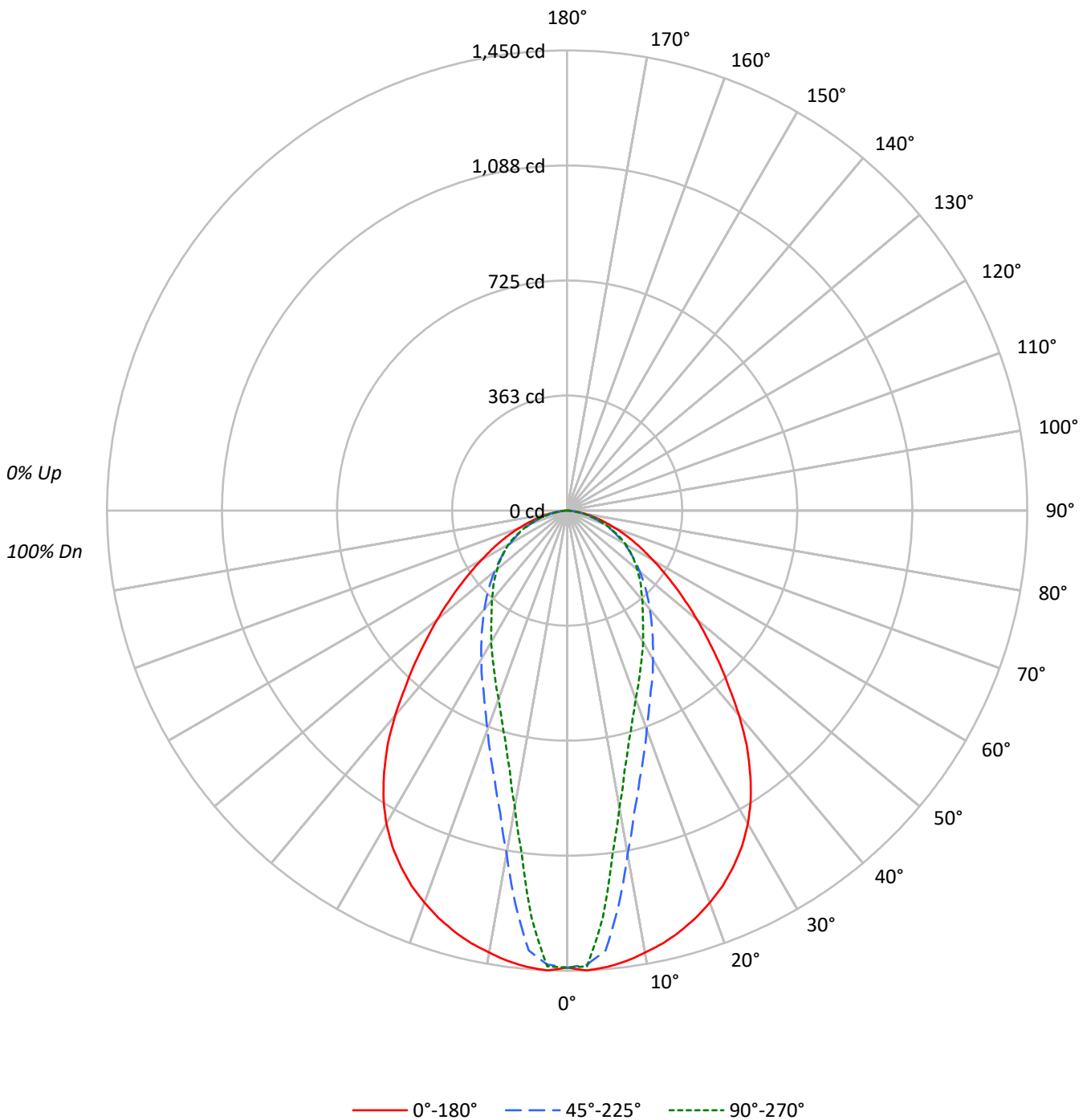
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1935.0 lumens  
Efficiency: N/A  
Efficacy: 111.9 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 0.5 / 0.8  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.3  
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			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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59	57
5	80	69	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	50
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	44	68	57	49	44	55	48	43	54	48	43	52	47	43	41
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37
9	62	49	41	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	43	37	33	31

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	27282	27282	27282
5°	27457	26456	24499
10°	27210	21127	18267
15°	26932	17268	14748
20°	26503	14781	12722
25°	25894	13049	11416
30°	24913	11831	10468
35°	23244	10840	9624
40°	20844	10014	9121
45°	18134	9359	8796
50°	15742	8789	8480
55°	13622	8311	8261
60°	11811	7828	8056
65°	10338	7343	7612
70°	8902	6741	6991
75°	7423	5937	6156
80°	5815	4833	4670
85°	3587	3109	3109

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 18134 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.0	6.4
10°-20°	273.4	14.1
20°-30°	335.4	17.3
30°-40°	346.6	17.9
40°-50°	313.0	16.2
50°-60°	253.7	13.1
60°-70°	177.8	9.2
70°-80°	91.7	4.7
80°-90°	19.4	1.0
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°	732.8	37.9
0°-40°	1079.4	55.8
0°-60°	1646.1	85.1
0°-90°	1935.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1935.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1440	1440	1440	1440	1440	
5°	1444	1441	1391	1329	1288	137
15°	1373	1158	880	785	752	387
25°	1239	822	624	565	546	569
35°	1005	608	469	429	416	625
45°	677	438	349	330	328	524
55°	412	300	252	249	250	371
65°	231	185	164	168	170	230
75°	101	87	81	83	84	110
85°	16	14	14	14	14	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1440.0	1440.0	1440.0	1440.0	1440.0
2.5°	1450.5	1445.2	1431.7	1444.5	1437.7
5°	1443.7	1440.7	1391.1	1328.8	1288.2
7.5°	1431.7	1421.2	1249.9	1132.0	1092.2
10°	1414.4	1361.8	1098.2	988.5	949.5
12.5°	1396.4	1272.5	975.8	872.8	837.5
15°	1373.1	1157.5	880.4	785.0	751.9
17.5°	1346.1	1057.6	804.5	712.8	686.6
20°	1314.5	971.2	733.1	652.8	631.0
22.5°	1280.0	898.4	673.8	608.4	588.2
25°	1238.7	822.5	624.2	564.9	546.1
27.5°	1192.8	764.7	582.9	527.3	511.5
30°	1138.8	708.3	540.8	491.3	478.5
32.5°	1077.2	655.8	503.3	459.7	444.7
35°	1005.0	607.7	468.7	428.9	416.1
37.5°	928.4	560.4	435.7	401.1	390.6
40°	842.8	519.1	404.9	374.1	368.8
42.5°	754.9	477.7	377.1	350.8	346.3
45°	676.8	437.9	349.3	329.8	328.3
47.5°	600.9	401.9	323.7	308.7	307.2
50°	534.1	364.3	298.2	288.4	287.7
52.5°	470.2	331.3	274.2	268.9	270.4
55°	412.4	299.7	251.6	248.6	250.1
57.5°	359.1	270.4	229.1	229.9	232.1
60°	311.7	240.4	206.6	209.6	212.6
62.5°	270.4	212.6	184.8	189.3	192.3
65°	230.6	184.8	163.8	167.5	169.8
67.5°	195.3	158.5	142.7	147.2	148.0
70°	160.7	134.5	121.7	126.2	126.2
72.5°	130.7	109.7	101.4	103.7	104.4
75°	101.4	87.1	81.1	83.4	84.1
77.5°	76.6	66.1	61.6	63.8	63.1
80°	53.3	46.6	44.3	43.6	42.8
82.5°	33.1	29.3	27.0	27.8	27.0
85°	16.5	14.3	14.3	14.3	14.3
87.5°	5.3	5.3	5.3	5.3	5.3
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	19.98	21.48	20.35	21.80	22.11	18.48	19.98	18.85	20.30	20.61
	3H	21.57	22.92	21.95	23.25	23.61	20.20	21.54	20.57	21.87	22.23
	4H	22.09	23.36	22.49	23.71	24.09	20.78	22.04	21.18	22.39	22.77
	6H	22.42	23.59	22.83	23.95	24.35	21.12	22.29	21.54	22.66	23.05
	8H	22.50	23.61	22.92	24.00	24.40	21.20	22.31	21.63	22.70	23.10
	12H	22.52	23.58	22.95	23.97	24.40	21.23	22.29	21.66	22.67	23.10
4H	2H	20.29	21.56	20.69	21.91	22.28	19.04	20.31	19.44	20.66	21.03
	3H	22.08	23.12	22.49	23.52	23.93	20.96	22.01	21.37	22.41	22.81
	4H	22.70	23.65	23.14	24.06	24.50	21.65	22.60	22.09	23.01	23.45
	6H	23.14	23.96	23.60	24.40	24.86	22.11	22.93	22.56	23.37	23.83
	8H	23.24	24.01	23.71	24.45	24.92	22.21	22.98	22.67	23.42	23.89
	12H	23.30	23.98	23.78	24.46	24.93	22.26	22.95	22.75	23.43	23.90
8H	4H	22.85	23.62	23.32	24.06	24.53	21.90	22.66	22.36	23.11	23.57
	6H	23.36	23.99	23.86	24.48	24.96	22.43	23.06	22.93	23.56	24.03
	8H	23.51	24.07	24.02	24.58	25.07	22.58	23.15	23.10	23.66	24.15
	12H	23.60	24.09	24.11	24.59	25.15	22.68	23.18	23.19	23.67	24.23
12H	4H	22.85	23.54	23.33	24.01	24.49	21.91	22.59	22.39	23.07	23.54
	6H	23.36	23.93	23.88	24.44	24.93	22.45	23.02	22.97	23.53	24.02
	8H	23.55	24.05	24.06	24.54	25.10	22.65	23.14	23.16	23.64	24.20