

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: P1217321

Luminaire Tested: S122DRP-S485D840-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217321
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-S485D840-X4F0-XX-UDD-G-W
Description: DEFINE 2, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

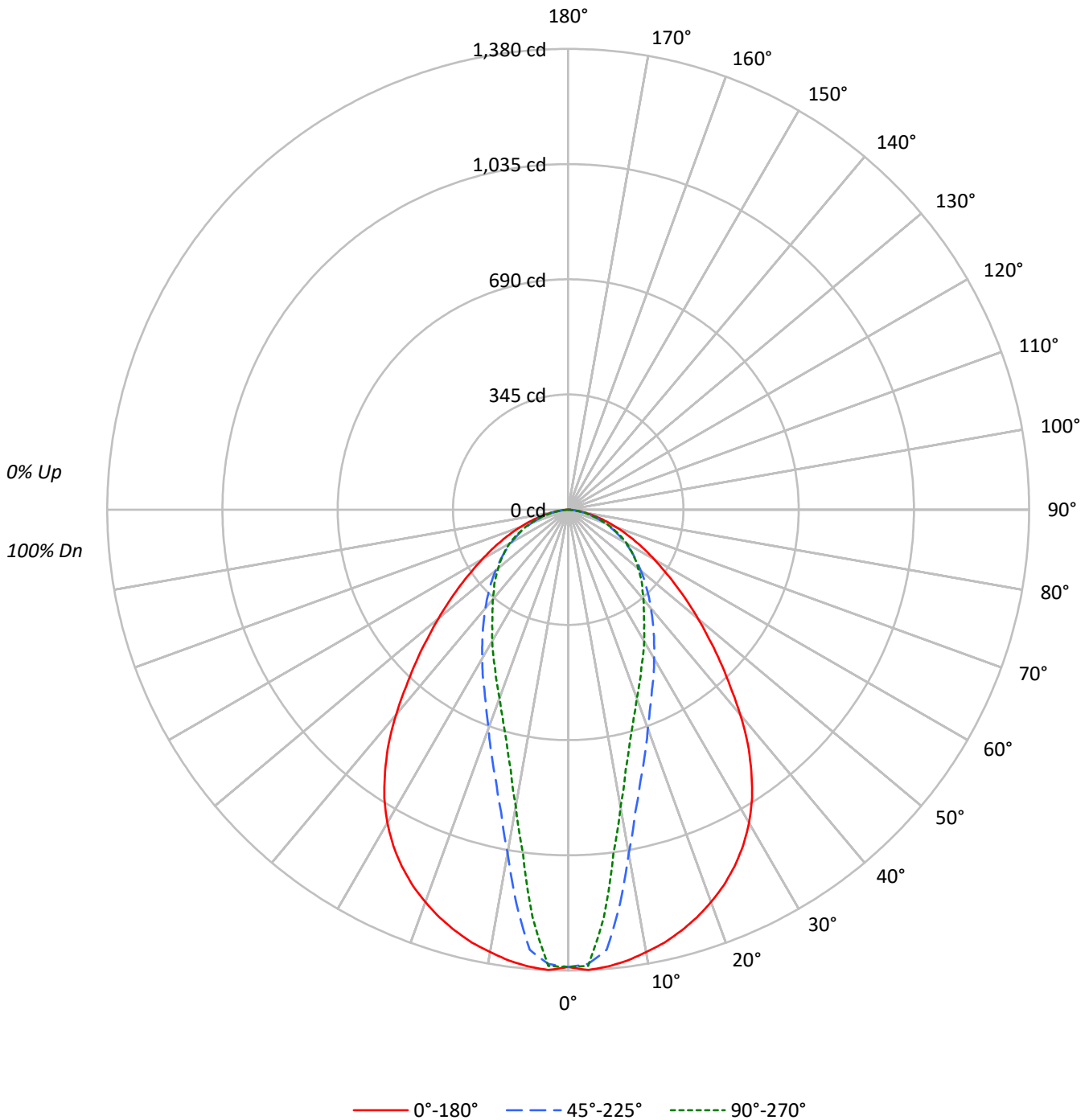
Lumens per Lamp: N/A
Luminaire Lumens: 1840.2 lumens
Efficiency: N/A
Efficacy: 96.3 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.5 / 0.8
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
Input Voltage (V): 120
Input Current (A_{in}): 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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75				75
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65				65
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59	57				57
5	80	69	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	50				50
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				45
7	70	57	49	44	68	57	49	44	55	48	43	54	48	43	52	47	43	41				41
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37				37
9	62	49	41	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34				34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	43	37	33	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25946	25946	25946
5°	26112	25161	23301
10°	25879	20092	17372
15°	25614	16421	14026
20°	25206	14057	12099
25°	24625	12409	10856
30°	23693	11251	9956
35°	22106	10311	9154
40°	19823	9522	8676
45°	17247	8901	8365
50°	14970	8359	8064
55°	12955	7904	7858
60°	11235	7446	7662
65°	9831	6980	7236
70°	8470	6409	6647
75°	7057	5651	5856
80°	5532	4593	4441
85°	3413	2956	2956

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17247 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.9	6.4
10°-20°	260.0	14.1
20°-30°	319.0	17.3
30°-40°	329.6	17.9
40°-50°	297.7	16.2
50°-60°	241.3	13.1
60°-70°	169.1	9.2
70°-80°	87.2	4.7
80°-90°	18.4	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°	696.9	37.9
0°-40°	1026.5	55.8
0°-60°	1565.5	85.1
0°-90°	1840.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1840.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1370	1370	1370	1370	1370	
5°	1373	1370	1323	1264	1225	130
15°	1306	1101	837	746	715	368
25°	1178	782	594	537	519	541
35°	956	578	446	408	396	594
45°	644	416	332	314	312	498
55°	392	285	239	236	238	353
65°	219	176	156	159	161	219
75°	96	83	77	79	80	104
85°	16	14	14	14	14	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1369.5	1369.5	1369.5	1369.5	1369.5
2.5°	1379.5	1374.5	1361.6	1373.7	1367.3
5°	1373.0	1370.2	1323.0	1263.7	1225.2
7.5°	1361.6	1351.6	1188.7	1076.6	1038.7
10°	1345.2	1295.2	1044.4	940.1	903.0
12.5°	1328.0	1210.1	928.0	830.1	796.5
15°	1305.9	1100.8	837.2	746.5	715.1
17.5°	1280.2	1005.8	765.1	677.9	652.9
20°	1250.2	923.7	697.2	620.8	600.1
22.5°	1217.3	854.4	640.8	578.6	559.4
25°	1178.0	782.2	593.6	537.2	519.3
27.5°	1134.4	727.2	554.4	501.5	486.5
30°	1083.0	673.7	514.3	467.2	455.1
32.5°	1024.4	623.6	478.6	437.2	422.9
35°	955.8	577.9	445.8	407.9	395.8
37.5°	883.0	532.9	414.3	381.5	371.5
40°	801.5	493.6	385.0	355.8	350.8
42.5°	717.9	454.3	358.6	333.6	329.3
45°	643.7	416.5	332.2	313.6	312.2
47.5°	571.5	382.2	307.9	293.6	292.2
50°	507.9	346.5	283.6	274.3	273.6
52.5°	447.2	315.0	260.7	255.7	257.2
55°	392.2	285.0	239.3	236.5	237.9
57.5°	341.5	257.2	217.9	218.6	220.7
60°	296.5	228.6	196.5	199.3	202.2
62.5°	257.2	202.2	175.7	180.0	182.9
65°	219.3	175.7	155.7	159.3	161.4
67.5°	185.7	150.7	135.7	140.0	140.7
70°	152.9	127.9	115.7	120.0	120.0
72.5°	124.3	104.3	96.4	98.6	99.3
75°	96.4	82.9	77.2	79.3	80.0
77.5°	72.9	62.9	58.6	60.7	60.0
80°	50.7	44.3	42.1	41.4	40.7
82.5°	31.4	27.9	25.7	26.4	25.7
85°	15.7	13.6	13.6	13.6	13.6
87.5°	5.0	5.0	5.0	5.0	5.0
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	19.81	21.31	20.18	21.62	21.94	18.31	19.81	18.67	20.12	20.44
	3H	21.40	22.74	21.78	23.07	23.43	20.02	21.37	20.40	21.69	22.06
	4H	21.92	23.18	22.32	23.53	23.91	20.60	21.86	21.00	22.21	22.59
	6H	22.25	23.41	22.66	23.78	24.17	20.95	22.11	21.36	22.48	22.87
	8H	22.32	23.43	22.75	23.82	24.22	21.02	22.13	21.45	22.52	22.93
	12H	22.35	23.41	22.78	23.79	24.22	21.05	22.12	21.48	22.50	22.93
4H	2H	20.12	21.38	20.52	21.73	22.11	18.87	20.13	19.27	20.48	20.86
	3H	21.90	22.95	22.31	23.35	23.75	20.78	21.83	21.20	22.23	22.63
	4H	22.53	23.47	22.96	23.89	24.33	21.48	22.42	21.91	22.84	23.28
	6H	22.96	23.78	23.42	24.23	24.69	21.93	22.75	22.39	23.19	23.65
	8H	23.07	23.84	23.53	24.28	24.75	22.03	22.80	22.50	23.24	23.71
	12H	23.12	23.81	23.60	24.28	24.76	22.09	22.77	22.57	23.25	23.72
8H	4H	22.68	23.45	23.14	23.89	24.36	21.72	22.49	22.18	22.93	23.40
	6H	23.19	23.82	23.68	24.31	24.79	22.26	22.89	22.76	23.38	23.86
	8H	23.33	23.90	23.85	24.41	24.90	22.41	22.97	22.92	23.48	23.97
	12H	23.42	23.92	23.93	24.41	24.98	22.50	23.00	23.01	23.49	24.06
12H	4H	22.68	23.36	23.16	23.84	24.31	21.73	22.41	22.21	22.89	23.37
	6H	23.19	23.75	23.70	24.27	24.75	22.28	22.84	22.79	23.35	23.84
	8H	23.37	23.87	23.88	24.36	24.93	22.47	22.97	22.98	23.46	24.03