

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: P1217322

Luminaire Tested: S122DRP-S485D850-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217322
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-S485D850-X4F0-XX-UDD-G-W
Description: DEFINE 2, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

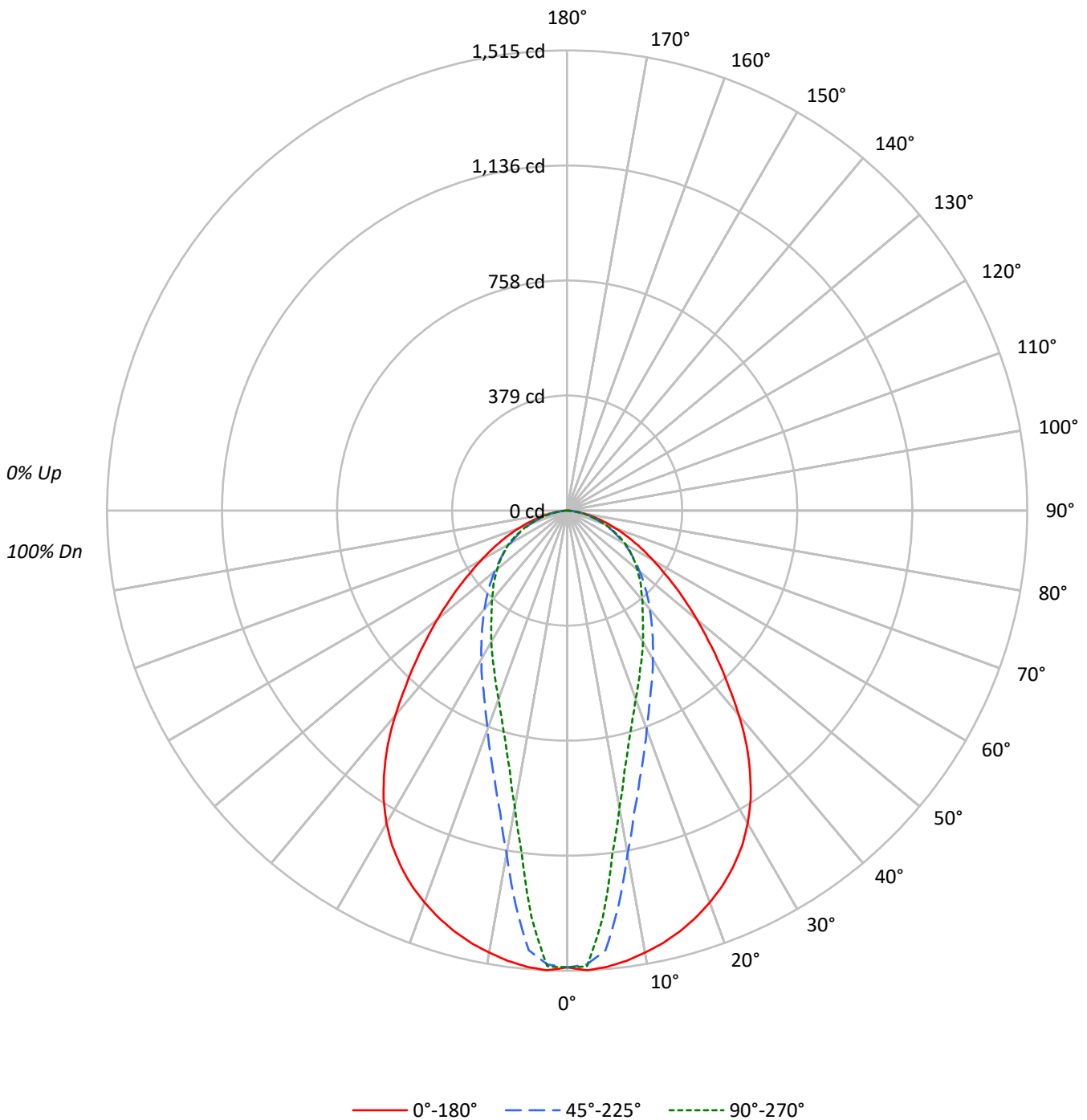
Lumens per Lamp: N/A
Luminaire Lumens: 2020.9 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.5 / 0.8
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
Input Voltage (V): 120
Input Current (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	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°	28493	28493	28493
5°	28676	27632	25587
10°	28419	22064	19077
15°	28129	18033	15403
20°	27680	15438	13287
25°	27042	13628	11922
30°	26018	12356	10932
35°	24278	11321	10052
40°	21769	10457	9527
45°	18938	9774	9185
50°	16441	9178	8857
55°	14226	8681	8628
60°	12338	8173	8412
65°	10795	7666	7948
70°	9301	7041	7301
75°	7752	6200	6434
80°	6077	5052	4877
85°	3761	3239	3239

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 18938 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.5	6.4
10°-20°	285.5	14.1
20°-30°	350.3	17.3
30°-40°	362.0	17.9
40°-50°	326.9	16.2
50°-60°	264.9	13.1
60°-70°	185.7	9.2
70°-80°	95.8	4.7
80°-90°	20.2	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°	765.3	37.9
0°-40°	1127.3	55.8
0°-60°	1719.2	85.1
0°-90°	2020.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2020.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1504	1504	1504	1504	1504	
5°	1508	1505	1453	1388	1345	143
15°	1434	1209	919	820	785	404
25°	1294	859	652	590	570	594
35°	1050	635	490	448	435	653
45°	707	457	365	344	343	547
55°	431	313	263	260	261	388
65°	241	193	171	175	177	241
75°	106	91	85	87	88	114
85°	17	15	15	15	15	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1503.9	1503.9	1503.9	1503.9	1503.9
2.5°	1514.9	1509.4	1495.3	1508.6	1501.5
5°	1507.8	1504.7	1452.9	1387.8	1345.4
7.5°	1495.3	1484.3	1305.4	1182.2	1140.7
10°	1477.2	1422.3	1146.9	1032.4	991.6
12.5°	1458.4	1328.9	1019.1	911.6	874.7
15°	1434.1	1208.9	919.4	819.8	785.3
17.5°	1405.8	1104.6	840.2	744.5	717.0
20°	1372.9	1014.4	765.7	681.7	659.0
22.5°	1336.8	938.3	703.7	635.4	614.3
25°	1293.6	859.0	651.9	589.9	570.3
27.5°	1245.8	798.6	608.8	550.7	534.2
30°	1189.3	739.8	564.8	513.1	499.7
32.5°	1125.0	684.9	525.6	480.1	464.4
35°	1049.7	634.7	489.5	448.0	434.6
37.5°	969.6	585.2	455.0	418.9	407.9
40°	880.2	542.1	422.8	390.7	385.2
42.5°	788.4	498.9	393.8	366.4	361.7
45°	706.8	457.4	364.8	344.4	342.8
47.5°	627.6	419.7	338.1	322.4	320.9
50°	557.8	380.5	311.4	301.2	300.5
52.5°	491.1	346.0	286.3	280.9	282.4
55°	430.7	313.0	262.8	259.7	261.2
57.5°	375.0	282.4	239.3	240.1	242.4
60°	325.6	251.0	215.7	218.9	222.0
62.5°	282.4	222.0	193.0	197.7	200.8
65°	240.8	193.0	171.0	174.9	177.3
67.5°	204.0	165.5	149.1	153.8	154.5
70°	167.9	140.4	127.1	131.8	131.8
72.5°	136.5	114.5	105.9	108.3	109.0
75°	105.9	91.0	84.7	87.1	87.9
77.5°	80.0	69.0	64.3	66.7	65.9
80°	55.7	48.6	46.3	45.5	44.7
82.5°	34.5	30.6	28.2	29.0	28.2
85°	17.3	14.9	14.9	14.9	14.9
87.5°	5.5	5.5	5.5	5.5	5.5
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	20.14	21.63	20.50	21.95	22.26	18.63	20.13	19.00	20.45	20.76
	3H	21.72	23.07	22.10	23.40	23.76	20.35	21.69	20.72	22.02	22.38
	4H	22.25	23.51	22.65	23.86	24.24	20.93	22.19	21.33	22.54	22.92
	6H	22.57	23.74	22.98	24.11	24.50	21.28	22.44	21.69	22.81	23.20
	8H	22.65	23.76	23.07	24.15	24.55	21.35	22.46	21.78	22.85	23.25
	12H	22.67	23.74	23.10	24.12	24.55	21.38	22.44	21.81	22.82	23.25
4H	2H	20.44	21.71	20.84	22.06	22.43	19.19	20.46	19.59	20.81	21.18
	3H	22.23	23.27	22.64	23.67	24.08	21.11	22.16	21.52	22.56	22.96
	4H	22.85	23.80	23.29	24.21	24.65	21.81	22.75	22.24	23.17	23.60
	6H	23.29	24.11	23.75	24.55	25.01	22.26	23.08	22.72	23.52	23.98
	8H	23.39	24.16	23.86	24.60	25.07	22.36	23.13	22.83	23.57	24.04
	12H	23.45	24.13	23.93	24.61	25.08	22.41	23.10	22.90	23.58	24.05
8H	4H	23.00	23.77	23.47	24.21	24.68	22.05	22.81	22.51	23.26	23.72
	6H	23.51	24.14	24.01	24.63	25.11	22.58	23.22	23.08	23.71	24.18
	8H	23.66	24.22	24.17	24.73	25.22	22.73	23.30	23.25	23.81	24.30
	12H	23.75	24.24	24.26	24.74	25.30	22.83	23.33	23.34	23.82	24.39
12H	4H	23.00	23.69	23.49	24.16	24.64	22.06	22.74	22.54	23.22	23.69
	6H	23.51	24.08	24.03	24.59	25.08	22.61	23.17	23.12	23.68	24.17
	8H	23.70	24.20	24.21	24.69	25.25	22.80	23.29	23.31	23.79	24.35