

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: P1439694

Luminaire Tested: S122DR-S485D935-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439694
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-S485D935-X4F0-XX-UDD-FLB-W
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

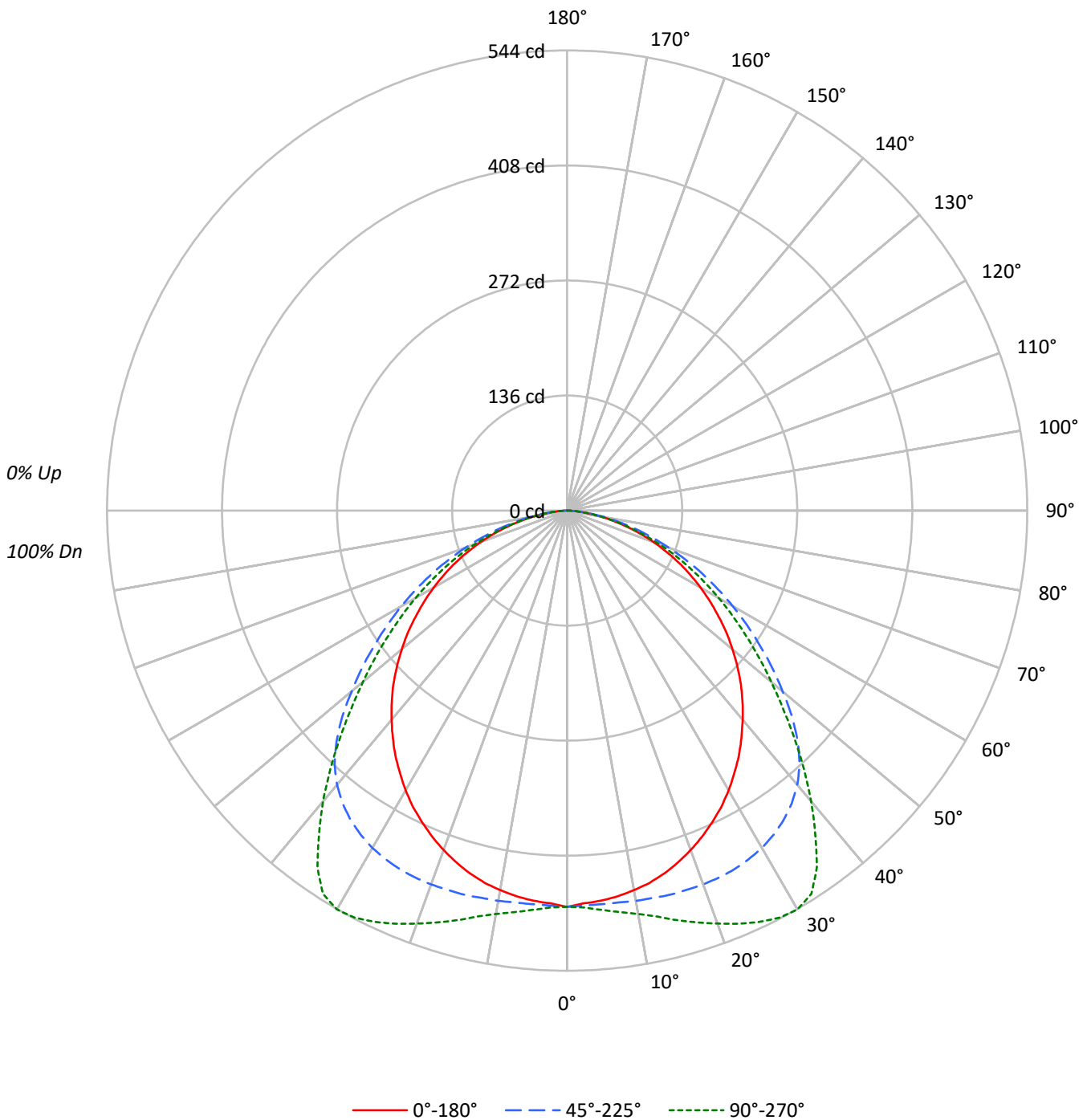
Lumens per Lamp: N/A
Luminaire Lumens: 1440.5 lumens
Efficiency: N/A
Efficacy: 75.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	8874	8874	8874
5°	8804	8885	9013
10°	8765	9011	9315
15°	8709	9223	9833
20°	8609	9480	10474
25°	8491	9779	11217
30°	8355	10074	11912
35°	8185	10325	11904
40°	7984	10469	11102
45°	7784	10329	10165
50°	7522	9800	9282
55°	7224	9193	8529
60°	6900	8564	7847
65°	6527	7890	7155
70°	6005	7052	6409
75°	5307	6105	5527
80°	4386	4855	4386
85°	2913	3174	3043

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 10412 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.8	3.1
10°-20°	133.8	9.3
20°-30°	217.1	15.1
30°-40°	274.7	19.1
40°-50°	275.1	19.1
50°-60°	230.4	16.0
60°-70°	162.4	11.3
70°-80°	83.8	5.8
80°-90°	18.6	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°	395.7	27.5
0°-40°	670.3	46.5
0°-60°	1175.8	81.6
0°-90°	1440.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1440.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	468	468	468	468	468	
5°	463	471	467	470	474	44
15°	444	457	470	489	501	125
25°	406	428	468	513	537	187
35°	354	382	446	504	515	221
45°	290	321	386	389	379	224
55°	219	246	278	267	258	196
65°	146	162	176	165	160	144
75°	72	80	83	77	76	77
85°	13	15	15	15	14	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	468.4	468.4	468.4	468.4	468.4
2.5°	464.7	472.0	467.2	467.8	469.6
5°	462.9	470.8	467.2	469.6	473.9
7.5°	459.8	468.4	467.2	472.0	478.7
10°	455.6	465.3	468.4	476.9	484.2
12.5°	450.7	461.1	469.0	482.4	491.5
15°	444.0	456.8	470.2	489.1	501.3
17.5°	436.1	451.3	470.2	496.4	510.4
20°	427.0	444.6	470.2	502.5	519.5
22.5°	417.2	436.7	469.6	508.0	528.7
25°	406.2	428.2	467.8	513.4	536.6
27.5°	394.7	418.4	464.7	517.7	542.7
30°	381.9	407.5	460.5	519.5	544.5
32.5°	367.9	395.9	454.4	515.9	537.2
35°	353.9	382.5	446.4	504.3	514.7
37.5°	338.6	368.5	436.1	481.8	481.8
40°	322.8	353.3	423.3	450.7	448.9
42.5°	307.0	337.4	406.9	420.3	414.2
45°	290.5	321.0	385.5	388.6	379.4
47.5°	272.9	302.7	360.6	356.3	345.9
50°	255.2	284.4	332.5	325.2	314.9
52.5°	237.5	265.6	305.8	295.4	286.3
55°	218.7	245.5	278.3	266.8	258.2
57.5°	200.4	225.4	252.2	239.4	232.1
60°	182.1	204.6	226.0	213.8	207.1
62.5°	163.8	183.3	201.0	188.8	182.7
65°	145.6	162.0	176.0	165.1	159.6
67.5°	126.7	141.3	151.0	141.3	137.6
70°	108.4	120.0	127.3	118.8	115.7
72.5°	90.1	99.9	104.8	98.1	95.0
75°	72.5	79.8	83.4	77.4	75.5
77.5°	55.4	60.9	62.7	58.5	56.0
80°	40.2	43.2	44.5	41.4	40.2
82.5°	25.0	27.4	28.6	26.2	25.6
85°	13.4	14.6	14.6	14.6	14.0
87.5°	4.9	6.1	6.1	6.1	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	19.07	20.68	19.44	21.00	21.31	19.58	21.20	19.95	21.51	21.82
	3H	20.64	22.09	21.02	22.42	22.78	21.05	22.50	21.43	22.83	23.19
	4H	21.18	22.54	21.58	22.89	23.27	21.54	22.91	21.94	23.26	23.63
	6H	21.52	22.79	21.93	23.15	23.54	21.84	23.11	22.26	23.47	23.86
	8H	21.60	22.81	22.03	23.20	23.60	21.92	23.12	22.34	23.51	23.91
	12H	21.64	22.80	22.07	23.18	23.61	21.95	23.11	22.38	23.49	23.92
4H	2H	19.82	21.19	20.22	21.54	21.91	20.22	21.59	20.62	21.94	22.31
	3H	21.60	22.74	22.01	23.13	23.53	21.89	23.03	22.30	23.43	23.83
	4H	22.24	23.27	22.67	23.68	24.12	22.48	23.51	22.91	23.92	24.36
	6H	22.69	23.58	23.14	24.02	24.48	22.88	23.78	23.33	24.22	24.67
	8H	22.80	23.63	23.26	24.08	24.54	22.98	23.82	23.44	24.26	24.73
	12H	22.86	23.61	23.34	24.08	24.55	23.04	23.79	23.52	24.27	24.74
8H	4H	22.52	23.36	22.99	23.81	24.27	22.74	23.58	23.20	24.02	24.49
	6H	23.06	23.76	23.56	24.25	24.72	23.22	23.92	23.72	24.41	24.88
	8H	23.22	23.85	23.73	24.35	24.84	23.37	23.99	23.88	24.50	24.98
	12H	23.33	23.88	23.83	24.37	24.93	23.47	24.02	23.98	24.51	25.07
12H	4H	22.54	23.29	23.02	23.77	24.24	22.76	23.51	23.24	23.98	24.45
	6H	23.09	23.72	23.60	24.22	24.71	23.25	23.88	23.76	24.38	24.87
	8H	23.30	23.85	23.81	24.34	24.90	23.44	23.99	23.95	24.48	25.04