

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: P1439649

Luminaire Tested: S122DR-H485D935-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439649
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-H485D935-X4F0-XX-UDD-FLB-W
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

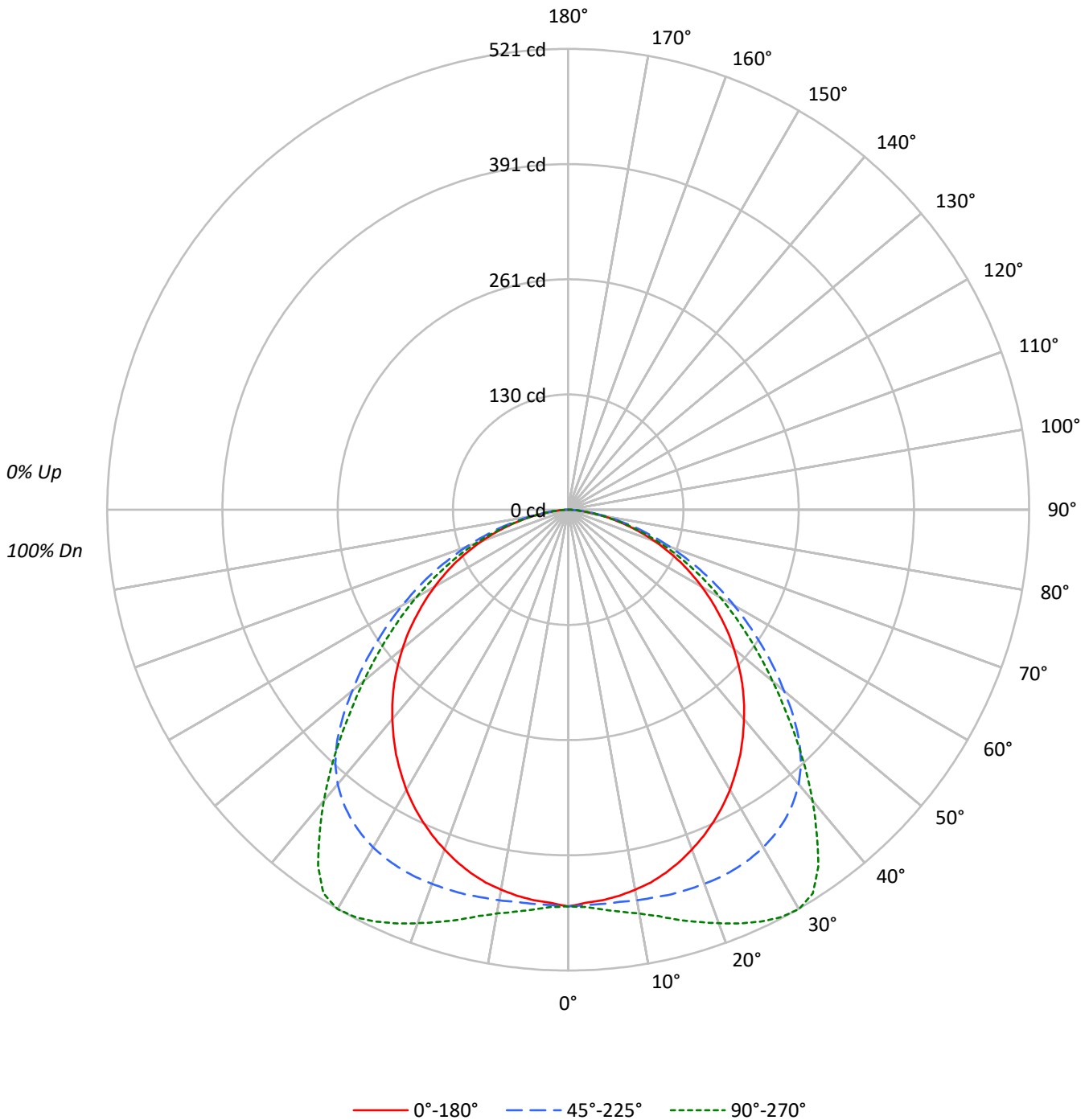
Lumens per Lamp: N/A
Luminaire Lumens: 1379.3 lumens
Efficiency: N/A
Efficacy: 79.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 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	
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°	8497	8497	8497
5°	8429	8507	8629
10°	8392	8628	8919
15°	8338	8830	9415
20°	8242	9077	10030
25°	8132	9363	10741
30°	8000	9645	11407
35°	7836	9887	11398
40°	7645	10024	10630
45°	7454	9892	9734
50°	7204	9385	8887
55°	6917	8803	8169
60°	6608	8200	7514
65°	6249	7554	6850
70°	5750	6753	6138
75°	5080	5849	5292
80°	4201	4648	4201
85°	2782	3043	2913

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 9970 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.9	3.1
10°-20°	128.1	9.3
20°-30°	207.8	15.1
30°-40°	263.0	19.1
40°-50°	263.4	19.1
50°-60°	220.6	16.0
60°-70°	155.5	11.3
70°-80°	80.2	5.8
80°-90°	17.8	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°	378.8	27.5
0°-40°	641.8	46.5
0°-60°	1125.8	81.6
0°-90°	1379.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1379.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	448	448	448	448	448	
5°	443	451	447	450	454	42
15°	425	437	450	468	480	120
25°	389	410	448	492	514	179
35°	339	366	428	483	493	212
45°	278	307	369	372	363	214
55°	209	235	266	255	247	187
65°	139	155	168	158	153	138
75°	69	76	80	74	72	74
85°	13	14	14	14	13	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	448.5	448.5	448.5	448.5	448.5
2.5°	445.0	452.0	447.3	447.9	449.6
5°	443.2	450.8	447.3	449.6	453.7
7.5°	440.3	448.5	447.3	452.0	458.4
10°	436.2	445.5	448.5	456.6	463.6
12.5°	431.6	441.5	449.0	461.9	470.6
15°	425.1	437.4	450.2	468.3	480.0
17.5°	417.6	432.1	450.2	475.3	488.7
20°	408.8	425.7	450.2	481.1	497.5
22.5°	399.5	418.1	449.6	486.4	506.2
25°	389.0	410.0	447.9	491.6	513.8
27.5°	377.9	400.6	445.0	495.7	519.6
30°	365.7	390.1	440.9	497.5	521.4
32.5°	352.2	379.1	435.1	494.0	514.4
35°	338.8	366.2	427.5	482.9	492.8
37.5°	324.2	352.8	417.6	461.3	461.3
40°	309.1	338.2	405.3	431.6	429.8
42.5°	293.9	323.1	389.6	402.4	396.6
45°	278.2	307.3	369.2	372.1	363.3
47.5°	261.3	289.8	345.2	341.2	331.2
50°	244.4	272.3	318.4	311.4	301.5
52.5°	227.4	254.3	292.8	282.8	274.1
55°	209.4	235.0	266.5	255.4	247.3
57.5°	191.9	215.8	241.4	229.2	222.2
60°	174.4	195.9	216.4	204.7	198.3
62.5°	156.9	175.5	192.4	180.8	175.0
65°	139.4	155.1	168.5	158.0	152.8
67.5°	121.3	135.3	144.6	135.3	131.8
70°	103.8	114.9	121.9	113.7	110.8
72.5°	86.3	95.6	100.3	93.9	91.0
75°	69.4	76.4	79.9	74.1	72.3
77.5°	53.1	58.3	60.1	56.0	53.7
80°	38.5	41.4	42.6	39.7	38.5
82.5°	23.9	26.2	27.4	25.1	24.5
85°	12.8	14.0	14.0	14.0	13.4
87.5°	4.7	5.8	5.8	5.8	5.2
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	18.92	20.53	19.28	20.85	21.16	19.43	21.04	19.80	21.36	21.67
	3H	20.49	21.94	20.87	22.27	22.63	20.90	22.35	21.28	22.68	23.04
	4H	21.03	22.39	21.42	22.74	23.12	21.39	22.76	21.79	23.11	23.48
	6H	21.37	22.63	21.78	23.00	23.39	21.69	22.96	22.10	23.32	23.71
	8H	21.45	22.66	21.88	23.05	23.45	21.77	22.97	22.19	23.36	23.76
	12H	21.49	22.64	21.92	23.03	23.45	21.80	22.96	22.23	23.34	23.77
4H	2H	19.67	21.04	20.07	21.39	21.76	20.07	21.44	20.47	21.78	22.16
	3H	21.44	22.58	21.85	22.98	23.38	21.74	22.88	22.15	23.28	23.68
	4H	22.09	23.12	22.52	23.53	23.97	22.33	23.36	22.76	23.77	24.21
	6H	22.53	23.43	22.99	23.87	24.33	22.73	23.62	23.18	24.07	24.52
	8H	22.64	23.48	23.11	23.92	24.39	22.83	23.67	23.29	24.11	24.58
	12H	22.70	23.46	23.19	23.93	24.40	22.89	23.64	23.37	24.12	24.59
8H	4H	22.37	23.21	22.83	23.65	24.12	22.59	23.43	23.05	23.87	24.34
	6H	22.91	23.61	23.41	24.10	24.57	23.07	23.77	23.57	24.26	24.73
	8H	23.07	23.69	23.58	24.20	24.69	23.22	23.84	23.73	24.35	24.83
	12H	23.18	23.73	23.68	24.22	24.78	23.32	23.87	23.83	24.36	24.92
12H	4H	22.39	23.14	22.87	23.62	24.09	22.61	23.36	23.09	23.83	24.30
	6H	22.94	23.57	23.45	24.07	24.56	23.10	23.73	23.61	24.23	24.72
	8H	23.15	23.70	23.65	24.19	24.75	23.29	23.84	23.80	24.33	24.89