

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: P1439658

Luminaire Tested: S122DR-H675D935-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439658
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-H675D935-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

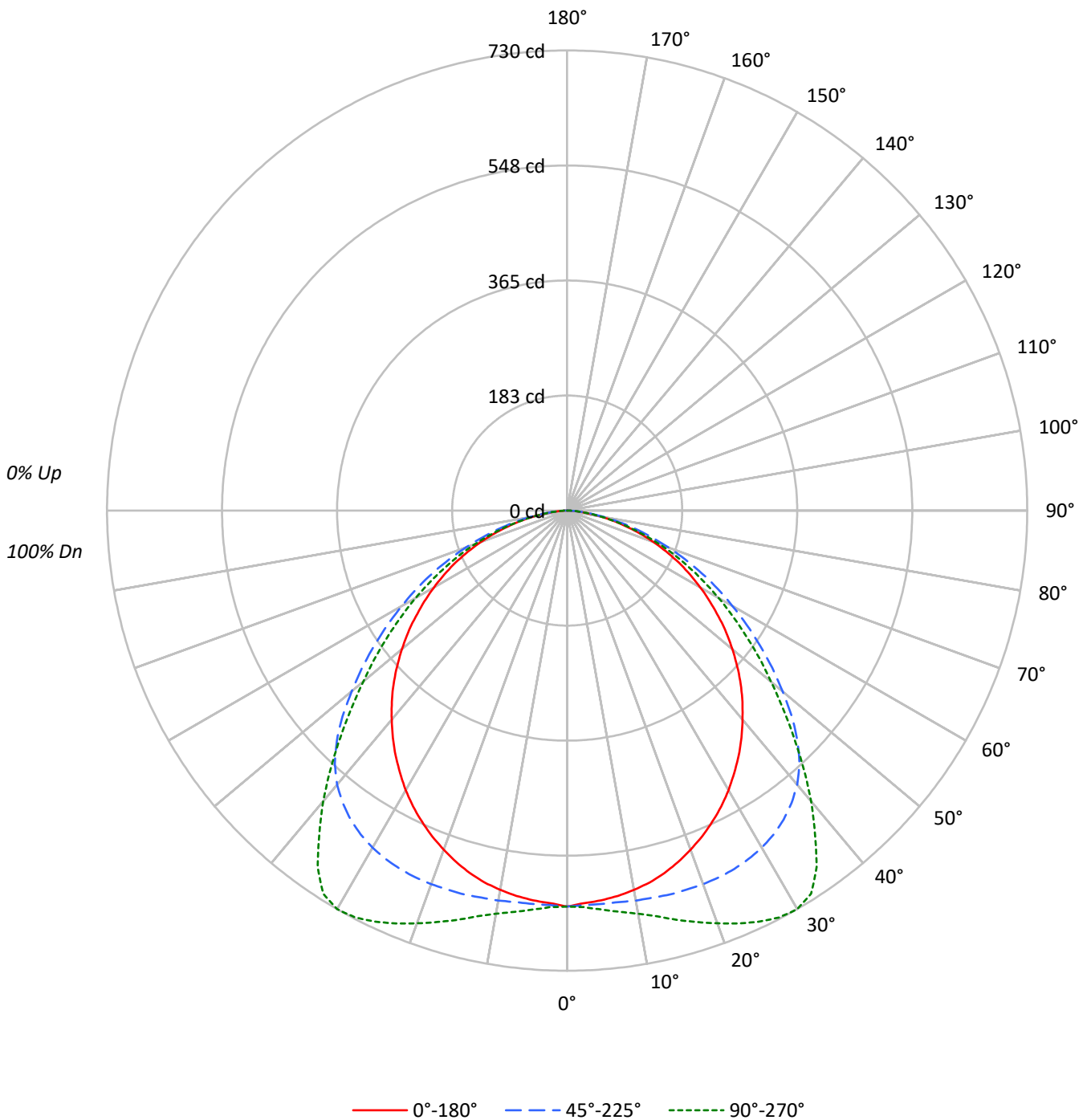
Lumens per Lamp: N/A
Luminaire Lumens: 1931.7 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 23.8
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

TEST NUMBER: P1439658

CATALOG NUMBER: S122DR-H675D935-X4F0-XX-UDD-FLB-W

Luminous Intensity Polar Plot



TEST NUMBER: P1439658

CATALOG NUMBER: S122DR-H675D935-X4F0-XX-UDD-FLB-W

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°	11900	11900	11900
5°	11805	11913	12084
10°	11753	12083	12491
15°	11678	12367	13185
20°	11543	12712	14047
25°	11389	13113	15041
30°	11203	13509	15974
35°	10975	13847	15961
40°	10707	14038	14886
45°	10439	13852	13633
50°	10086	13143	12447
55°	9685	12327	11439
60°	9253	11481	10523
65°	8751	10580	9594
70°	8054	9456	8597
75°	7115	8191	7415
80°	5881	6503	5881
85°	3913	4261	4087

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 13962 cd/sqm



TEST NUMBER: P1439658

CATALOG NUMBER: S122DR-H675D935-X4F0-XX-UDD-FLB-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.1	3.1
10°-20°	179.4	9.3
20°-30°	291.1	15.1
30°-40°	368.3	19.1
40°-50°	368.9	19.1
50°-60°	308.9	16.0
60°-70°	217.7	11.3
70°-80°	112.3	5.8
80°-90°	24.9	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°	530.6	27.5
0°-40°	898.9	46.5
0°-60°	1576.7	81.6
0°-90°	1931.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1931.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	628	628	628	628	628	
5°	621	631	626	630	635	59
15°	595	613	630	656	672	168
25°	545	574	627	688	720	251
35°	474	513	599	676	690	297
45°	390	430	517	521	509	300
55°	293	329	373	358	346	262
65°	195	217	236	221	214	193
75°	97	107	112	104	101	103
85°	18	20	20	20	19	23
90°	0	0	0	0	0	



TEST NUMBER: P1439658

CATALOG NUMBER: S122DR-H675D935-X4F0-XX-UDD-FLB-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	628.1	628.1	628.1	628.1	628.1
2.5°	623.2	633.0	626.4	627.3	629.7
5°	620.7	631.3	626.4	629.7	635.4
7.5°	616.6	628.1	626.4	633.0	642.0
10°	610.9	624.0	628.1	639.5	649.3
12.5°	604.4	618.3	628.9	646.9	659.1
15°	595.4	612.6	630.5	655.8	672.2
17.5°	584.8	605.2	630.5	665.6	684.4
20°	572.5	596.2	630.5	673.8	696.7
22.5°	559.5	585.6	629.7	681.2	708.9
25°	544.8	574.2	627.3	688.5	719.5
27.5°	529.2	561.1	623.2	694.2	727.7
30°	512.1	546.4	617.5	696.7	730.2
32.5°	493.3	530.9	609.3	691.8	720.4
35°	474.5	512.9	598.7	676.3	690.1
37.5°	454.1	494.1	584.8	646.0	646.0
40°	432.9	473.7	567.6	604.4	601.9
42.5°	411.6	452.5	545.6	563.5	555.4
45°	389.6	430.4	517.0	521.1	508.8
47.5°	365.9	405.9	483.5	477.8	463.9
50°	342.2	381.4	445.9	436.1	422.3
52.5°	318.5	356.1	410.0	396.1	383.9
55°	293.2	329.1	373.2	357.7	346.3
57.5°	268.7	302.2	338.1	321.0	311.2
60°	244.2	274.4	303.0	286.7	277.7
62.5°	219.7	245.8	269.5	253.2	245.0
65°	195.2	217.3	236.0	221.3	214.0
67.5°	169.9	189.5	202.6	189.5	184.6
70°	145.4	160.9	170.7	159.3	155.2
72.5°	120.9	133.9	140.5	131.5	127.4
75°	97.2	107.0	111.9	103.7	101.3
77.5°	74.3	81.7	84.1	78.4	75.1
80°	53.9	58.0	59.6	55.5	53.9
82.5°	33.5	36.8	38.4	35.1	34.3
85°	18.0	19.6	19.6	19.6	18.8
87.5°	6.5	8.2	8.2	8.2	7.4
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1439658

CATALOG NUMBER: S122DR-H675D935-X4F0-XX-UDD-FLB-W

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	20.09	21.70	20.45	22.02	22.33	20.60	22.22	20.97	22.53	22.84
	3H	21.66	23.11	22.04	23.44	23.80	22.07	23.52	22.45	23.85	24.21
	4H	22.20	23.56	22.59	23.91	24.29	22.56	23.93	22.96	24.28	24.65
	6H	22.54	23.80	22.95	24.17	24.56	22.86	24.13	23.27	24.49	24.88
	8H	22.62	23.83	23.05	24.22	24.62	22.94	24.14	23.36	24.53	24.93
	12H	22.66	23.81	23.09	24.20	24.63	22.97	24.13	23.40	24.51	24.94
4H	2H	20.84	22.21	21.24	22.56	22.93	21.24	22.61	21.64	22.96	23.33
	3H	22.61	23.75	23.02	24.15	24.55	22.91	24.05	23.32	24.45	24.85
	4H	23.26	24.29	23.69	24.70	25.14	23.50	24.53	23.93	24.94	25.38
	6H	23.71	24.60	24.16	25.04	25.50	23.90	24.79	24.35	25.24	25.69
	8H	23.81	24.65	24.28	25.10	25.56	24.00	24.84	24.46	25.28	25.74
	12H	23.88	24.63	24.36	25.10	25.57	24.06	24.81	24.54	25.28	25.75
8H	4H	23.54	24.38	24.00	24.82	25.29	23.76	24.60	24.22	25.04	25.51
	6H	24.08	24.78	24.58	25.27	25.74	24.24	24.94	24.74	25.43	25.90
	8H	24.24	24.87	24.75	25.37	25.86	24.39	25.01	24.90	25.52	26.00
	12H	24.35	24.90	24.85	25.39	25.95	24.49	25.04	25.00	25.53	26.09
12H	4H	23.56	24.31	24.04	24.79	25.26	23.78	24.53	24.26	25.00	25.47
	6H	24.11	24.74	24.62	25.24	25.73	24.27	24.89	24.78	25.40	25.89
	8H	24.32	24.87	24.83	25.36	25.92	24.46	25.01	24.97	25.50	26.06