

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: P1439653

Luminaire Tested: S122DR-H675D835-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439653
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-H675D835-X4F0-XX-UDD-FLB-W
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

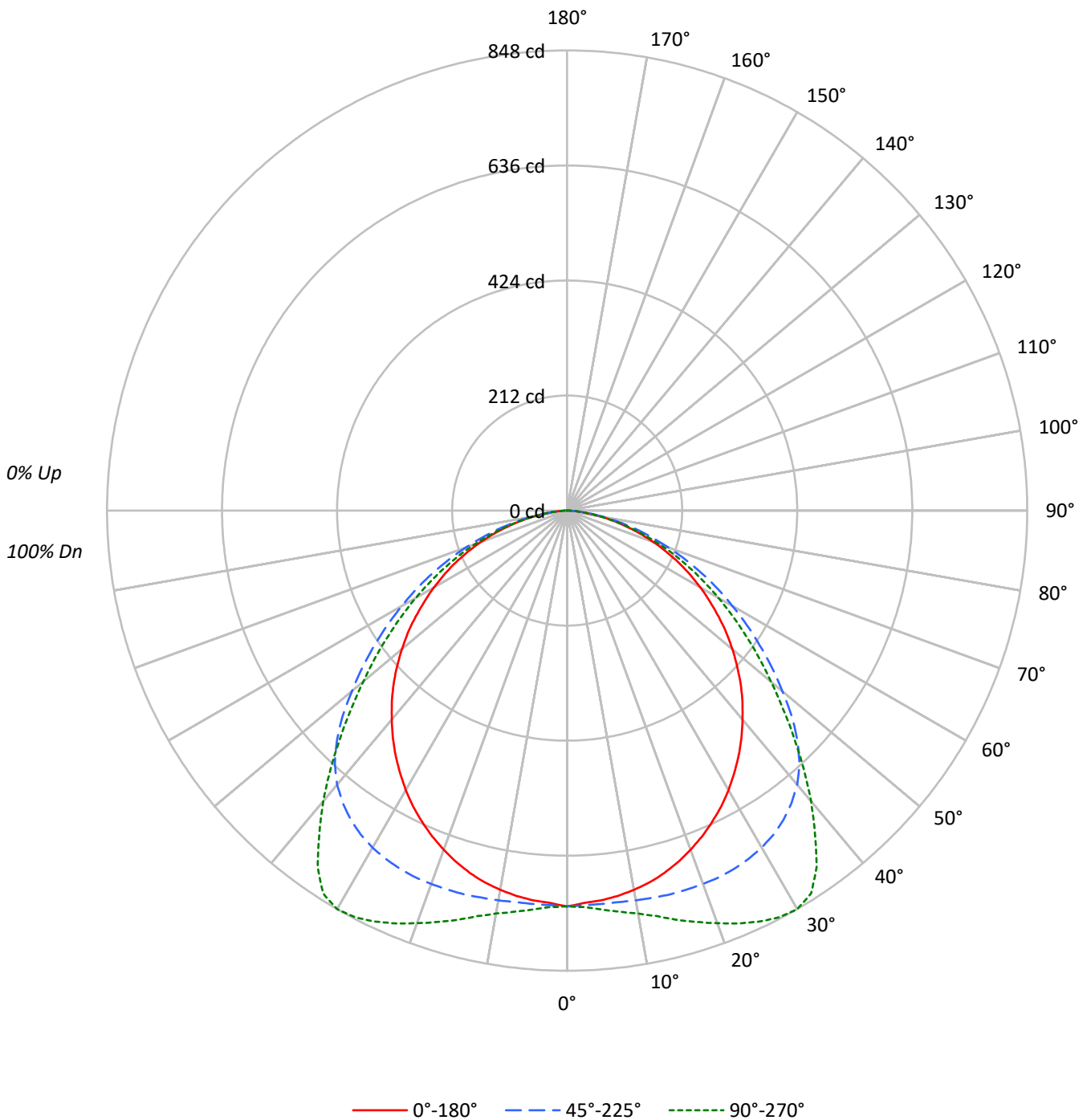
Lumens per Lamp: N/A
Luminaire Lumens: 2243.6 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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: P1439653

CATALOG NUMBER: S122DR-H675D835-X4F0-XX-UDD-FLB-W

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	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	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85					85			
2	100	91	85	79	97	90	84	78	86	81	76	83	79	75	80	76	73	71					71			
3	91	80	72	66	88	79	71	66	76	70	64	73	68	63	71	66	62	60					60			
4	83	71	63	56	81	70	62	56	68	60	55	65	59	54	63	58	53	51					51			
5	76	64	55	48	74	63	54	48	61	53	47	59	52	47	57	51	46	44					44			
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39					39			
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34					34			
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30					30			
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27					27			
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13821	13821	13821
5°	13710	13838	14035
10°	13649	14034	14507
15°	13563	14363	15313
20°	13408	14764	16315
25°	13226	15229	17470
30°	13012	15688	18552
35°	12746	16081	18540
40°	12435	16306	17290
45°	12124	16089	15835
50°	11716	15265	14454
55°	11247	14319	13285
60°	10746	13334	12220
65°	10163	12288	11140
70°	9351	10985	9982
75°	8264	9516	8608
80°	6830	7550	6830
85°	4543	4956	4739

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 16215 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.8	3.1
10°-20°	208.4	9.3
20°-30°	338.1	15.1
30°-40°	427.8	19.1
40°-50°	428.4	19.1
50°-60°	358.8	16.0
60°-70°	252.9	11.3
70°-80°	130.5	5.8
80°-90°	28.9	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°	616.2	27.5
0°-40°	1044.0	46.5
0°-60°	1831.3	81.6
0°-90°	2243.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2243.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	730	730	730	730	730	
5°	721	733	728	731	738	68
15°	692	711	732	762	781	195
25°	633	667	728	800	836	291
35°	551	596	695	785	802	344
45°	452	500	600	605	591	348
55°	340	382	434	416	402	305
65°	227	252	274	257	248	224
75°	113	124	130	120	118	120
85°	21	23	23	23	22	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	729.5	729.5	729.5	729.5	729.5
2.5°	723.8	735.2	727.6	728.5	731.4
5°	720.9	733.3	727.6	731.4	738.0
7.5°	716.2	729.5	727.6	735.2	745.6
10°	709.5	724.7	729.5	742.7	754.1
12.5°	702.0	718.1	730.4	751.3	765.5
15°	691.5	711.4	732.3	761.7	780.7
17.5°	679.2	702.9	732.3	773.1	794.9
20°	665.0	692.5	732.3	782.6	809.2
22.5°	649.8	680.1	731.4	791.1	823.4
25°	632.7	666.9	728.5	799.7	835.7
27.5°	614.7	651.7	723.8	806.3	845.2
30°	594.8	634.6	717.1	809.2	848.0
32.5°	573.0	616.6	707.7	803.5	836.7
35°	551.1	595.7	695.3	785.4	801.6
37.5°	527.4	573.9	679.2	750.3	750.3
40°	502.8	550.2	659.3	702.0	699.1
42.5°	478.1	525.5	633.7	654.5	645.0
45°	452.5	499.9	600.5	605.2	591.0
47.5°	425.0	471.5	561.6	554.9	538.8
50°	397.5	443.0	517.9	506.5	490.4
52.5°	370.0	413.6	476.2	460.1	445.8
55°	340.5	382.3	433.5	415.5	402.2
57.5°	312.1	351.0	392.7	372.8	361.4
60°	283.6	318.7	351.9	333.0	322.5
62.5°	255.2	285.5	313.0	294.1	284.6
65°	226.7	252.3	274.1	257.1	248.5
67.5°	197.3	220.1	235.3	220.1	214.4
70°	168.8	186.9	198.3	185.0	180.2
72.5°	140.4	155.6	163.2	152.7	148.0
75°	112.9	124.3	130.0	120.5	117.6
77.5°	86.3	94.9	97.7	91.1	87.3
80°	62.6	67.4	69.2	64.5	62.6
82.5°	38.9	42.7	44.6	40.8	39.8
85°	20.9	22.8	22.8	22.8	21.8
87.5°	7.6	9.5	9.5	9.5	8.5
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	20.61	22.22	20.97	22.54	22.85	21.12	22.73	21.49	23.05	23.36
	3H	22.18	23.63	22.56	23.96	24.32	22.59	24.04	22.97	24.37	24.73
	4H	22.72	24.08	23.11	24.43	24.81	23.08	24.45	23.48	24.80	25.17
	6H	23.06	24.32	23.47	24.69	25.08	23.38	24.65	23.79	25.01	25.40
	8H	23.14	24.35	23.57	24.74	25.14	23.46	24.66	23.88	25.05	25.45
	12H	23.18	24.33	23.61	24.72	25.15	23.49	24.65	23.92	25.03	25.46
4H	2H	21.36	22.73	21.76	23.08	23.45	21.76	23.13	22.16	23.47	23.85
	3H	23.13	24.27	23.54	24.67	25.07	23.43	24.57	23.84	24.97	25.37
	4H	23.78	24.81	24.21	25.22	25.66	24.02	25.05	24.45	25.46	25.90
	6H	24.23	25.12	24.68	25.56	26.02	24.42	25.31	24.87	25.76	26.21
	8H	24.34	25.17	24.80	25.62	26.08	24.52	25.36	24.98	25.80	26.26
	12H	24.40	25.15	24.88	25.62	26.09	24.58	25.33	25.06	25.81	26.27
8H	4H	24.06	24.90	24.53	25.34	25.81	24.28	25.12	24.74	25.56	26.03
	6H	24.60	25.30	25.10	25.79	26.26	24.76	25.46	25.26	25.95	26.42
	8H	24.76	25.39	25.27	25.89	26.38	24.91	25.53	25.42	26.04	26.52
	12H	24.87	25.42	25.37	25.91	26.47	25.01	25.56	25.52	26.05	26.61
12H	4H	24.08	24.83	24.56	25.31	25.78	24.30	25.05	24.78	25.52	25.99
	6H	24.63	25.26	25.14	25.76	26.25	24.79	25.41	25.30	25.92	26.41
	8H	24.84	25.39	25.35	25.88	26.44	24.98	25.53	25.49	26.02	26.58