

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: P1439697

Luminaire Tested: S122DR-S675D830-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439697
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-S675D830-X4F0-XX-UDD-FLB-W
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

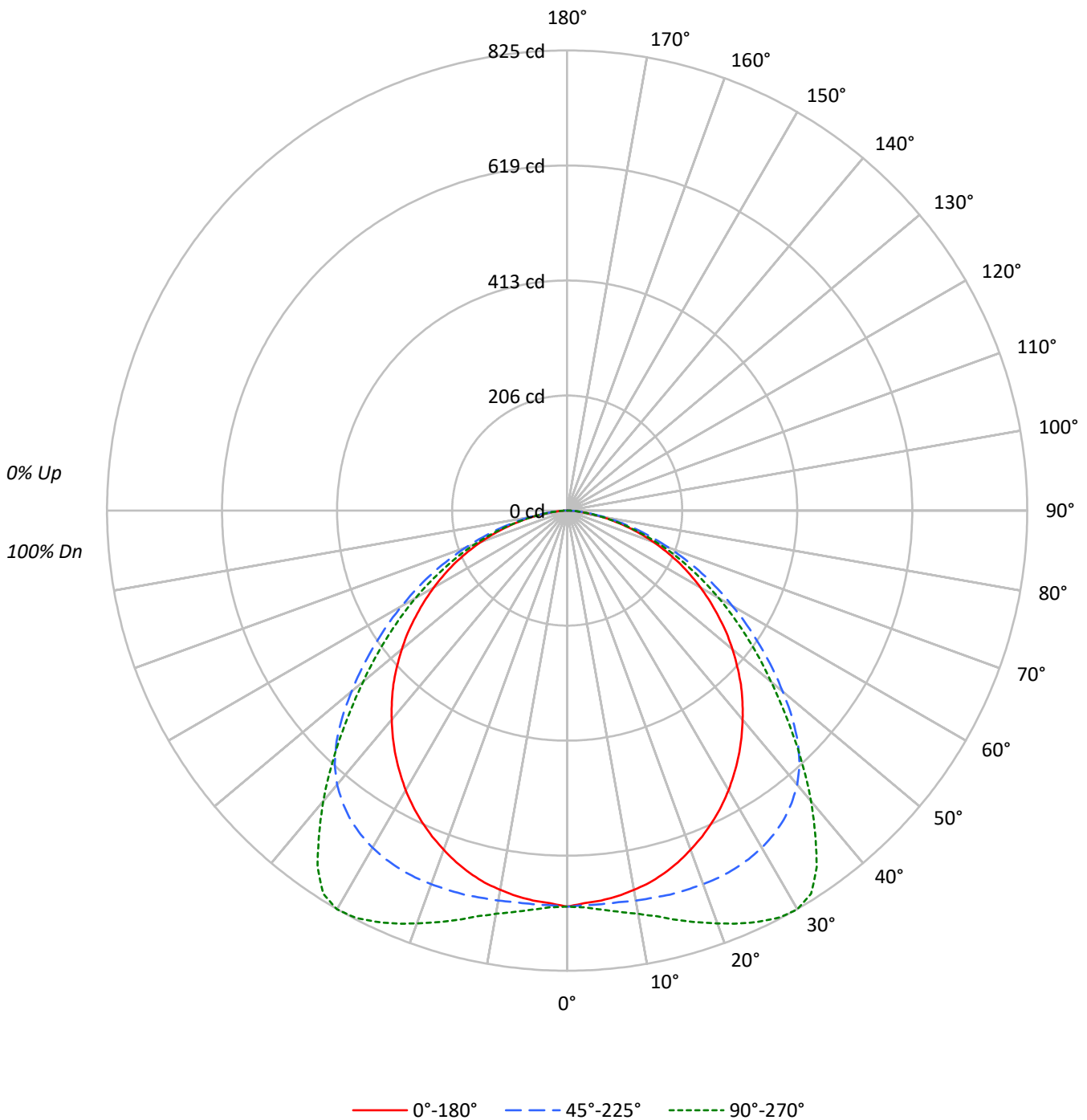
Lumens per Lamp: N/A
Luminaire Lumens: 2183.7 lumens
Efficiency: N/A
Efficacy: 82.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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

TEST NUMBER: P1439697

CATALOG NUMBER: S122DR-S675D830-X4F0-XX-UDD-FLB-W

Luminous Intensity Polar Plot





TEST NUMBER: P1439697

CATALOG NUMBER: S122DR-S675D830-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	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°	13452	13452	13452
5°	13345	13469	13661
10°	13286	13659	14121
15°	13202	13981	14905
20°	13049	14371	15879
25°	12873	14823	17004
30°	12664	15270	18057
35°	12406	15653	18045
40°	12101	15871	16830
45°	11800	15658	15412
50°	11404	14858	14068
55°	10950	13936	12932
60°	10462	12978	11894
65°	9894	11961	10844
70°	9101	10691	9716
75°	8045	9260	8382
80°	6644	7354	6644
85°	4413	4826	4608

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 15784 cd/sqm



TEST NUMBER: P1439697

CATALOG NUMBER: S122DR-S675D830-X4F0-XX-UDD-FLB-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.9	3.1
10°-20°	202.8	9.3
20°-30°	329.1	15.1
30°-40°	416.4	19.1
40°-50°	417.0	19.1
50°-60°	349.3	16.0
60°-70°	246.1	11.3
70°-80°	127.0	5.8
80°-90°	28.2	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°	599.8	27.5
0°-40°	1016.2	46.5
0°-60°	1782.4	81.6
0°-90°	2183.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2183.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	710	710	710	710	710	
5°	702	714	708	712	718	67
15°	673	692	713	741	760	190
25°	616	649	709	778	813	284
35°	536	580	677	764	780	335
45°	440	487	584	589	575	339
55°	332	372	422	404	392	297
65°	221	246	267	250	242	218
75°	110	121	126	117	114	117
85°	20	22	22	22	21	26
90°	0	0	0	0	0	



TEST NUMBER: P1439697

CATALOG NUMBER: S122DR-S675D830-X4F0-XX-UDD-FLB-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	710.0	710.0	710.0	710.0	710.0
2.5°	704.5	715.6	708.2	709.1	711.9
5°	701.7	713.7	708.2	711.9	718.3
7.5°	697.1	710.0	708.2	715.6	725.7
10°	690.6	705.4	710.0	722.9	734.0
12.5°	683.2	698.9	710.9	731.2	745.1
15°	673.1	692.5	712.8	741.4	759.9
17.5°	661.1	684.2	712.8	752.5	773.7
20°	647.2	674.0	712.8	761.7	787.6
22.5°	632.5	662.0	711.9	770.0	801.4
25°	615.8	649.1	709.1	778.3	813.4
27.5°	598.3	634.3	704.5	784.8	822.7
30°	578.9	617.7	698.0	787.6	825.4
32.5°	557.7	600.1	688.8	782.0	814.3
35°	536.4	579.8	676.8	764.5	780.2
37.5°	513.4	558.6	661.1	730.3	730.3
40°	489.3	535.5	641.7	683.2	680.5
42.5°	465.3	511.5	616.8	637.1	627.8
45°	440.4	486.6	584.4	589.1	575.2
47.5°	413.6	458.9	546.6	540.1	524.4
50°	386.9	431.2	504.1	493.0	477.3
52.5°	360.1	402.6	463.5	447.8	433.9
55°	331.5	372.1	421.9	404.4	391.5
57.5°	303.8	341.6	382.2	362.9	351.8
60°	276.1	310.2	342.5	324.1	313.9
62.5°	248.4	277.9	304.7	286.2	277.0
65°	220.7	245.6	266.8	250.2	241.9
67.5°	192.0	214.2	229.0	214.2	208.7
70°	164.3	181.9	193.0	180.0	175.4
72.5°	136.6	151.4	158.8	148.7	144.0
75°	109.9	121.0	126.5	117.3	114.5
77.5°	84.0	92.3	95.1	88.6	84.9
80°	60.9	65.6	67.4	62.8	60.9
82.5°	37.9	41.5	43.4	39.7	38.8
85°	20.3	22.2	22.2	22.2	21.2
87.5°	7.4	9.2	9.2	9.2	8.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1439697

CATALOG NUMBER: S122DR-S675D830-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	20.51	22.13	20.88	22.44	22.76	21.03	22.64	21.39	22.96	23.27
	3H	22.09	23.54	22.46	23.87	24.23	22.50	23.95	22.87	24.28	24.64
	4H	22.62	23.99	23.02	24.34	24.71	22.99	24.36	23.39	24.70	25.08
	6H	22.97	24.23	23.38	24.59	24.99	23.29	24.55	23.70	24.92	25.31
	8H	23.05	24.25	23.47	24.64	25.04	23.36	24.57	23.79	24.96	25.36
	12H	23.08	24.24	23.51	24.62	25.05	23.40	24.55	23.83	24.93	25.36
4H	2H	21.27	22.64	21.67	22.98	23.36	21.67	23.03	22.07	23.38	23.76
	3H	23.04	24.18	23.45	24.58	24.98	23.33	24.47	23.74	24.87	25.27
	4H	23.69	24.72	24.12	25.13	25.57	23.93	24.96	24.36	25.37	25.81
	6H	24.13	25.03	24.59	25.47	25.92	24.32	25.22	24.78	25.66	26.12
	8H	24.24	25.08	24.70	25.52	25.99	24.42	25.26	24.89	25.70	26.17
	12H	24.30	25.05	24.78	25.53	26.00	24.48	25.24	24.96	25.71	26.18
8H	4H	23.97	24.81	24.43	25.25	25.72	24.19	25.02	24.65	25.47	25.93
	6H	24.51	25.20	25.00	25.69	26.17	24.67	25.36	25.16	25.85	26.33
	8H	24.67	25.29	25.18	25.80	26.28	24.81	25.44	25.32	25.94	26.43
	12H	24.77	25.32	25.28	25.81	26.38	24.91	25.47	25.42	25.96	26.52
12H	4H	23.99	24.74	24.47	25.21	25.68	24.20	24.95	24.68	25.43	25.90
	6H	24.54	25.16	25.05	25.67	26.16	24.70	25.32	25.21	25.83	26.31
	8H	24.74	25.29	25.25	25.78	26.35	24.89	25.44	25.39	25.93	26.49