

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: METALUX

Report Number: P1587594

Luminaire Tested: 22CZSP-SB-31-L835-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1587594
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-8)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 22CZSP-SB-31-L835-S
Description: 2x2 CZSP LED Luminaire, 3500K CCT and 3000 lumens, 80CRI, Smooth Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

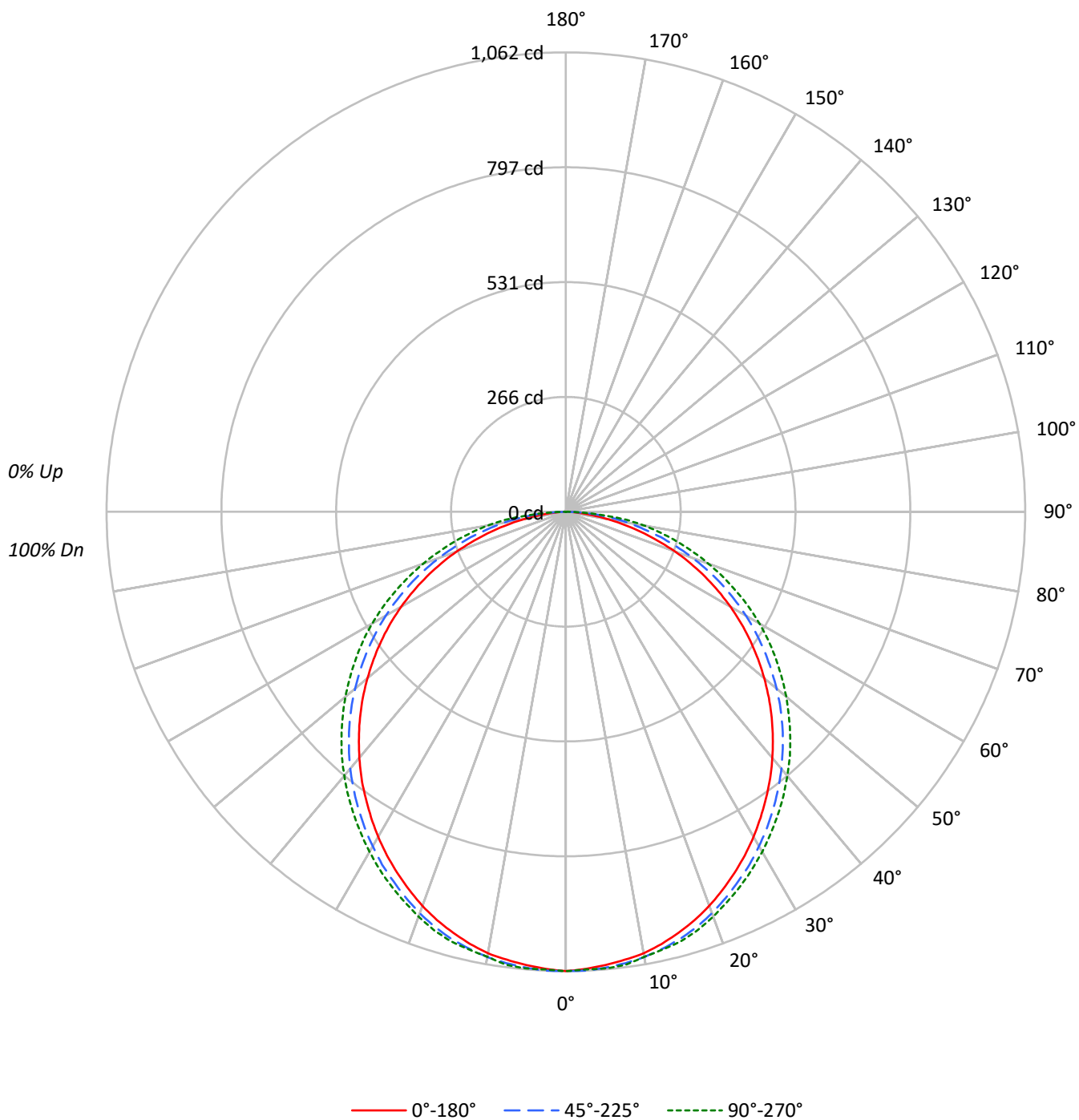
Lumens per Lamp: N/A
Luminaire Lumens: 3089.0 lumens
Efficiency: N/A
Efficacy: 147.1 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')
CIE Type: Direct

Input Watts (W): 21
Input Voltage (V): NR
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: P1587594

CATALOG NUMBER: 22CZSP-SB-31-L835-S

Luminous Intensity Polar Plot



TEST NUMBER: P1587594

CATALOG NUMBER: 22CZSP-SB-31-L835-S

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	108	103	99	95	106	101	97	93	97	94	90		93	90	88		89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53		63	57	52		61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40		51	45	39		50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		45	39	35	33
8	60	46	38	32	58	45	37	31	44	37	31		43	36	31		42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26		37	30	25		36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3325	3325	3325
5°	3306	3325	3332
10°	3296	3324	3321
15°	3266	3313	3333
20°	3231	3291	3319
25°	3185	3258	3299
30°	3138	3229	3282
35°	3086	3198	3267
40°	3037	3170	3257
45°	2981	3137	3249
50°	2917	3098	3241
55°	2844	3058	3236
60°	2755	3013	3238
65°	2629	2949	3220
70°	2458	2859	3213
75°	2179	2750	3224
80°	1773	2613	3320
85°	1146	2411	2863

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 3363 cd/sqm

TEST NUMBER: P1587594

CATALOG NUMBER: 22CZSP-SB-31-L835-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.5	3.3
10°-20°	287.8	9.3
20°-30°	433.9	14.0
30°-40°	522.1	16.9
40°-50°	544.6	17.6
50°-60°	499.2	16.2
60°-70°	391.9	12.7
70°-80°	238.6	7.7
80°-90°	70.6	2.3
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°	822.1	26.6
0°-40°	1344.2	43.5
0°-60°	2387.9	77.3
0°-90°	3089.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3089.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1062	1062	1062	1062	1062	
5°	1052	1059	1058	1057	1060	100
15°	1007	1017	1022	1023	1028	284
25°	922	934	943	949	955	425
35°	807	820	837	849	855	505
45°	673	687	708	725	734	519
55°	521	534	560	583	593	466
65°	355	368	398	425	435	351
75°	180	197	227	254	266	191
85°	32	45	67	75	80	42
90°	0	0	0	0	0	

TEST NUMBER: P1587594

CATALOG NUMBER: 22CZSP-SB-31-L835-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1061.9	1061.9	1061.9	1061.9	1061.9
2.5°	1057.9	1063.2	1061.9	1057.2	1059.2
5°	1051.9	1058.6	1057.9	1056.6	1059.9
7.5°	1044.6	1051.9	1052.6	1052.6	1056.6
10°	1036.6	1043.9	1045.3	1043.3	1044.6
12.5°	1023.3	1032.0	1034.6	1034.6	1036.6
15°	1007.4	1017.4	1022.0	1023.3	1028.0
17.5°	990.1	1000.8	1006.7	1010.1	1014.0
20°	969.5	980.8	987.5	991.5	996.1
22.5°	946.3	958.9	966.2	970.2	975.5
25°	921.7	934.3	942.9	948.9	954.9
27.5°	895.8	907.7	919.7	927.0	932.3
30°	867.9	880.5	893.1	902.4	907.7
32.5°	838.0	851.2	865.9	875.8	881.8
35°	807.4	820.0	836.6	848.6	854.6
37.5°	776.2	789.4	806.7	819.3	826.7
40°	742.9	756.9	775.5	789.4	796.8
42.5°	708.4	721.7	742.3	758.2	766.8
45°	673.2	687.1	708.4	725.0	733.6
47.5°	636.6	649.9	673.2	692.4	699.7
50°	598.7	611.4	635.9	656.5	665.2
52.5°	560.2	573.5	598.1	620.0	629.3
55°	521.0	534.3	560.2	582.8	592.7
57.5°	481.1	494.4	521.0	544.2	556.2
60°	439.9	453.2	481.1	505.0	517.0
62.5°	397.4	411.3	439.9	464.5	477.1
65°	354.8	368.1	398.0	424.6	434.6
67.5°	312.3	325.6	354.8	381.4	393.4
70°	268.5	283.7	312.3	340.2	350.9
72.5°	222.6	239.9	268.5	297.7	308.3
75°	180.1	196.7	227.3	254.5	266.5
77.5°	138.2	156.2	184.7	212.6	224.6
80°	98.3	115.6	144.9	171.4	184.1
82.5°	62.5	77.7	107.0	130.9	140.2
85°	31.9	45.2	67.1	75.1	79.7
87.5°	9.3	15.9	23.9	29.9	33.2
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1587594

CATALOG NUMBER: 22CZSP-SB-31-L835-S

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	15.67	17.33	16.04	17.65	17.96	16.41	18.07	16.77	18.38	18.70
	3H	17.44	18.95	17.82	19.27	19.63	18.49	19.99	18.86	20.32	20.68
	4H	18.06	19.48	18.46	19.83	20.20	19.35	20.77	19.75	21.12	21.50
	6H	18.47	19.79	18.88	20.15	20.54	20.10	21.42	20.51	21.78	22.17
	8H	18.57	19.83	19.00	20.22	20.62	20.39	21.65	20.82	22.04	22.44
	12H	18.62	19.83	19.05	20.21	20.64	20.59	21.79	21.02	22.18	22.60
4H	2H	16.44	17.86	16.84	18.21	18.58	17.01	18.43	17.41	18.78	19.15
	3H	18.43	19.63	18.84	20.03	20.42	19.33	20.52	19.74	20.92	21.32
	4H	19.18	20.26	19.61	20.67	21.11	20.35	21.43	20.78	21.84	22.28
	6H	19.70	20.65	20.16	21.09	21.55	21.25	22.20	21.70	22.64	23.09
	8H	19.85	20.74	20.31	21.18	21.64	21.62	22.51	22.08	22.95	23.41
	12H	19.93	20.73	20.41	21.20	21.67	21.87	22.67	22.35	23.15	23.61
8H	4H	19.62	20.51	20.08	20.95	21.42	20.64	21.53	21.10	21.97	22.44
	6H	20.28	21.03	20.78	21.51	21.99	21.70	22.44	22.19	22.93	23.40
	8H	20.49	21.16	21.00	21.66	22.15	22.17	22.84	22.68	23.34	23.83
	12H	20.63	21.22	21.14	21.71	22.27	22.52	23.11	23.03	23.60	24.16
12H	4H	19.70	20.50	20.18	20.98	21.45	20.67	21.47	21.15	21.94	22.41
	6H	20.41	21.08	20.92	21.58	22.07	21.75	22.42	22.26	22.92	23.41
	8H	20.69	21.28	21.19	21.76	22.32	22.29	22.88	22.79	23.37	23.93