

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P474899

Luminaire Tested: **22CZ2-80VHE-S-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474899
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-80VHE-S-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7891.6 lumens
Efficiency: N/A
Efficacy: 134.4 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

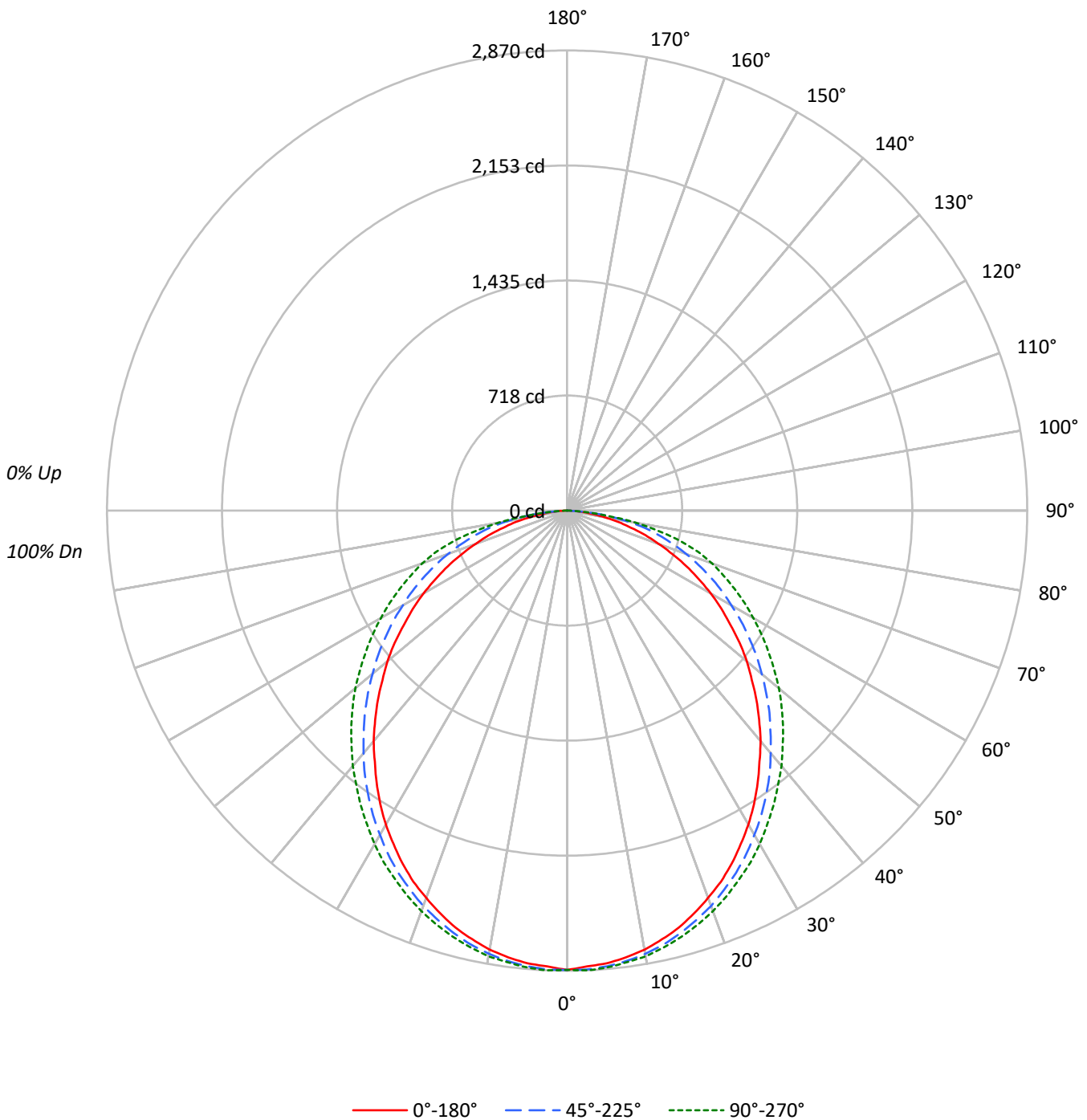
Input Watts (W): 58.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	99	95	106	101	97	94	97	94	91	93	91	88	90	88	86	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7709	7709	7709
5°	7656	7707	7728
10°	7598	7671	7713
15°	7502	7603	7667
20°	7361	7514	7613
25°	7213	7400	7536
30°	7026	7257	7465
35°	6807	7108	7372
40°	6595	6937	7306
45°	6352	6788	7246
50°	6124	6636	7219
55°	5833	6505	7186
60°	5571	6373	7216
65°	5229	6299	7321
70°	4778	6220	7558
75°	4289	6175	7565
80°	3611	5830	6718
85°	2711	3952	3656



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.6	3.4
10°-20°	768.4	9.7
20°-30°	1145.7	14.5
30°-40°	1351.8	17.1
40°-50°	1377.3	17.5
50°-60°	1242.1	15.7
60°-70°	975.5	12.4
70°-80°	609.9	7.7
80°-90°	150.3	1.9
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°	2184.6	27.7
0°-40°	3536.5	44.8
0°-60°	6155.9	78.0
0°-90°	7891.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7891.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2865	2865	2865	2865	2865	
5°	2834	2840	2853	2859	2861	269
15°	2693	2702	2729	2748	2752	758
25°	2429	2443	2492	2528	2538	1118
35°	2072	2101	2164	2223	2244	1296
45°	1669	1698	1784	1870	1904	1288
55°	1243	1283	1386	1493	1532	1115
65°	821	865	989	1100	1150	811
75°	412	470	594	695	728	441
85°	88	113	128	126	118	107
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2864.6	2864.6	2864.6	2864.6	2864.6
2.5°	2845.5	2851.3	2864.6	2870.4	2870.4
5°	2834.1	2839.8	2853.2	2858.9	2860.8
7.5°	2811.2	2818.8	2834.1	2841.7	2841.7
10°	2780.6	2790.2	2807.3	2818.8	2822.6
12.5°	2738.6	2750.1	2773.0	2786.3	2790.2
15°	2692.8	2702.3	2729.0	2748.1	2752.0
17.5°	2633.6	2648.8	2677.5	2702.3	2708.0
20°	2570.5	2587.7	2624.0	2652.7	2658.4
22.5°	2505.6	2519.0	2559.1	2593.5	2601.1
25°	2429.2	2442.6	2492.2	2528.5	2538.1
27.5°	2345.2	2368.1	2417.8	2459.8	2475.1
30°	2261.2	2284.1	2335.6	2385.3	2402.5
32.5°	2169.5	2194.3	2253.5	2305.1	2322.3
35°	2072.1	2100.7	2163.8	2223.0	2244.0
37.5°	1970.9	2003.3	2074.0	2137.0	2159.9
40°	1877.3	1900.2	1974.7	2047.3	2079.7
42.5°	1772.3	1802.8	1877.3	1959.4	1990.0
45°	1669.1	1697.8	1783.7	1869.7	1904.0
47.5°	1562.2	1598.5	1684.4	1779.9	1814.3
50°	1462.9	1493.4	1585.1	1686.3	1724.5
52.5°	1355.9	1388.4	1487.7	1592.7	1627.1
55°	1243.3	1283.4	1386.5	1493.4	1531.6
57.5°	1140.1	1178.3	1287.2	1397.9	1438.1
60°	1035.1	1073.3	1184.1	1296.7	1340.7
62.5°	924.3	968.2	1088.6	1197.4	1247.1
65°	821.2	865.1	989.3	1100.0	1149.7
67.5°	712.3	763.9	888.0	1004.5	1054.2
70°	607.3	668.4	790.6	905.2	960.6
72.5°	513.7	563.4	691.3	811.6	857.5
75°	412.5	469.8	593.9	695.2	727.6
77.5°	326.6	376.2	494.6	561.5	582.5
80°	233.0	288.4	376.2	416.3	433.5
82.5°	154.7	200.5	255.9	263.5	259.7
85°	87.8	112.7	128.0	126.0	118.4
87.5°	34.4	38.2	28.6	17.2	13.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)