

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: P475247

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475247
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-80VHE-SQR-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7349.9 lumens
Efficiency: N/A
Efficacy: 125.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

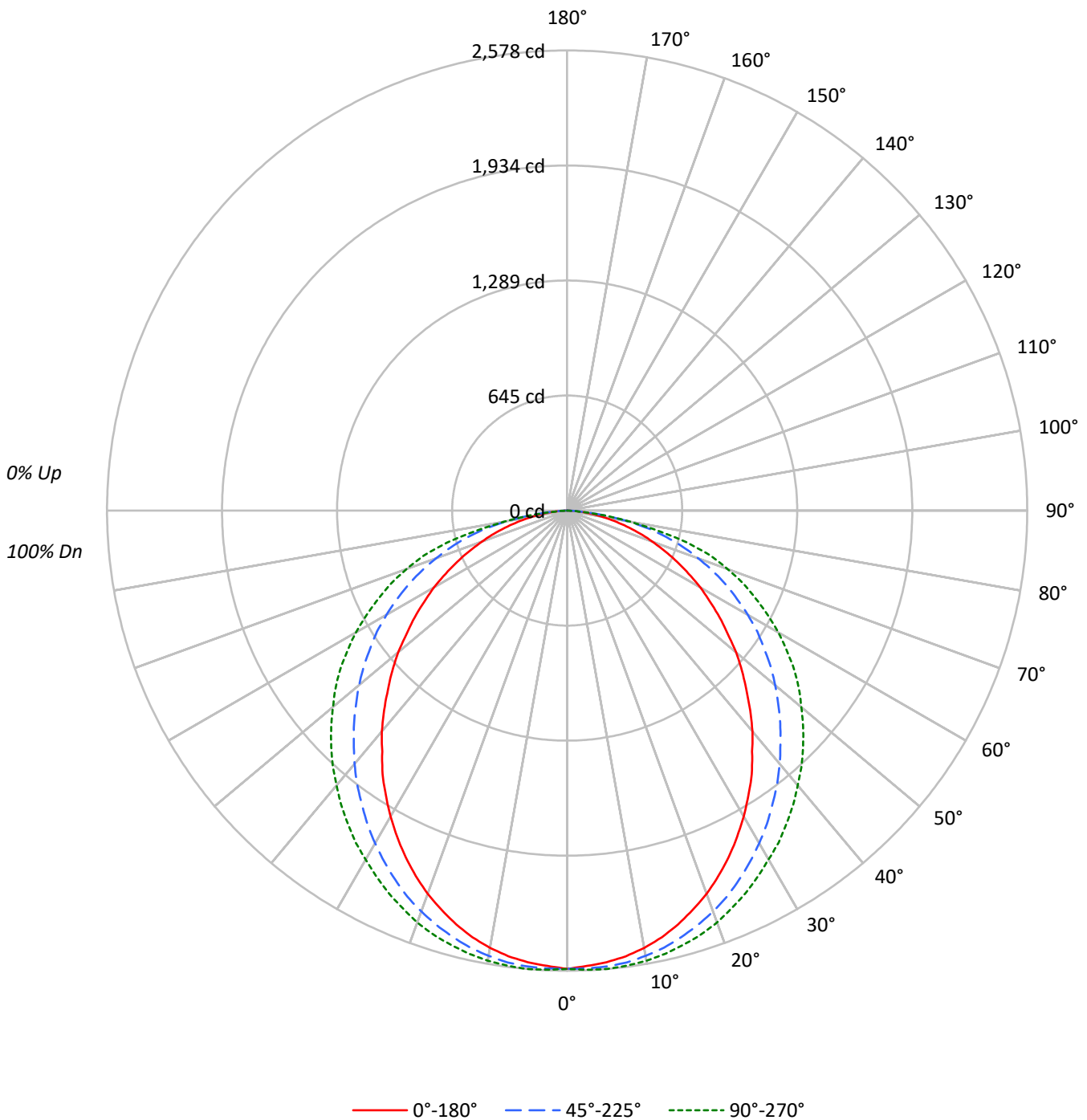
Input Watts (W): 58.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6909	6909	6909
5°	6860	6926	6964
10°	6797	6920	6996
15°	6687	6890	7017
20°	6543	6844	7033
25°	6360	6774	7022
30°	6146	6688	7013
35°	5924	6589	7037
40°	5674	6508	7059
45°	5403	6425	7116
50°	5169	6367	7170
55°	4893	6317	7284
60°	4637	6290	7360
65°	4330	6241	7418
70°	3979	6147	7520
75°	3592	5984	7252
80°	3081	5300	5461
85°	2479	3122	2479



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.4	3.3
10°-20°	695.9	9.5
20°-30°	1045.2	14.2
30°-40°	1246.6	17.0
40°-50°	1288.9	17.5
50°-60°	1184.9	16.1
60°-70°	943.3	12.8
70°-80°	576.4	7.8
80°-90°	125.2	1.7
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°	1984.6	27.0
0°-40°	3231.2	44.0
0°-60°	5704.9	77.6
0°-90°	7349.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7349.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2567	2567	2567	2567	2567	
5°	2540	2546	2564	2575	2578	241
15°	2400	2428	2473	2508	2519	676
25°	2142	2194	2281	2344	2365	985
35°	1803	1880	2006	2111	2142	1125
45°	1420	1521	1688	1825	1870	1098
55°	1043	1158	1346	1500	1552	933
65°	680	796	980	1116	1165	674
75°	346	447	576	677	698	368
85°	80	98	101	87	80	92
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2567.3	2567.3	2567.3	2567.3	2567.3
2.5°	2553.4	2556.9	2567.3	2574.7	2574.7
5°	2539.5	2546.5	2563.9	2574.7	2578.1
7.5°	2518.7	2529.1	2553.4	2567.3	2571.2
10°	2487.4	2501.3	2532.6	2553.4	2560.4
12.5°	2448.8	2469.7	2508.3	2536.1	2543.0
15°	2400.2	2428.0	2473.2	2508.3	2518.7
17.5°	2344.2	2379.0	2434.9	2477.0	2490.9
20°	2284.8	2319.9	2389.8	2438.4	2455.8
22.5°	2215.3	2260.5	2340.8	2396.7	2410.6
25°	2142.0	2194.1	2281.3	2344.2	2365.1
27.5°	2061.7	2124.6	2218.8	2295.6	2313.0
30°	1977.9	2044.3	2152.4	2236.1	2257.0
32.5°	1890.7	1967.5	2082.5	2176.7	2204.9
35°	1803.4	1880.2	2005.7	2110.7	2142.0
37.5°	1702.3	1793.0	1932.7	2040.8	2079.0
40°	1615.1	1702.3	1852.5	1971.0	2009.6
42.5°	1517.4	1611.6	1768.7	1897.6	1943.2
45°	1419.7	1520.9	1688.4	1824.7	1869.8
47.5°	1329.0	1430.2	1604.6	1747.8	1793.0
50°	1234.8	1339.4	1520.9	1667.6	1712.7
52.5°	1133.7	1248.7	1437.1	1583.8	1636.3
55°	1043.0	1158.0	1346.4	1500.0	1552.5
57.5°	948.8	1067.3	1263.0	1409.3	1458.3
60°	861.6	976.6	1168.8	1311.7	1367.6
62.5°	767.4	885.9	1074.3	1214.0	1266.5
65°	680.1	795.6	980.1	1116.3	1165.0
67.5°	592.9	708.3	882.4	1011.7	1067.3
70°	505.7	621.1	781.3	907.1	955.8
72.5°	429.2	530.4	683.6	799.0	844.2
75°	345.5	446.6	575.5	676.7	697.5
77.5°	268.7	359.4	467.5	512.6	520.0
80°	198.8	268.7	342.0	352.4	352.4
82.5°	132.4	184.9	212.7	216.2	212.7
85°	80.3	97.7	101.1	87.2	80.3
87.5°	27.8	27.8	17.4	10.4	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)