

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: P475164

Luminaire Tested: **22CZ2-100VHE-HRP-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475164
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-100VHE-HRP-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP
INSERT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8117.3 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

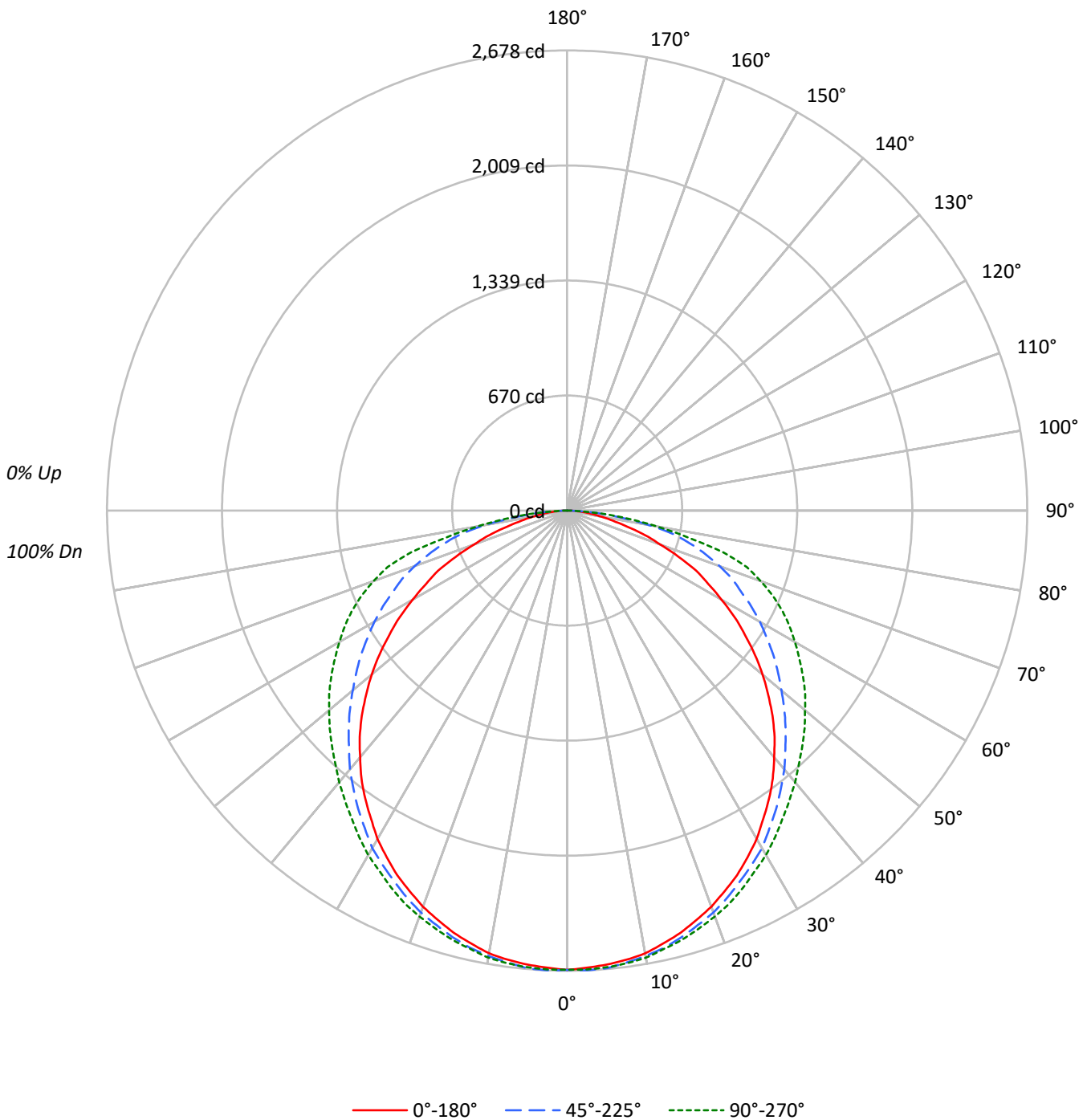
Input Watts (W): 75.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7192	7192	7192
5°	7165	7220	7206
10°	7150	7192	7221
15°	7090	7161	7204
20°	7025	7127	7199
25°	6949	7070	7192
30°	6857	7049	7192
35°	6728	6964	7183
40°	6583	6907	7249
45°	6431	6841	7366
50°	6217	6817	7567
55°	5933	6871	7856
60°	5594	6972	8240
65°	5282	7108	8805
70°	4512	7413	9427
75°	3781	7722	9796
80°	3098	7459	8173
85°	2680	5530	6005



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	253.3	3.1
10°-20°	724.7	8.9
20°-30°	1098.2	13.5
30°-40°	1326.1	16.3
40°-50°	1393.4	17.2
50°-60°	1311.1	16.2
60°-70°	1093.1	13.5
70°-80°	724.4	8.9
80°-90°	193.0	2.4
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°	2076.2	25.6
0°-40°	3402.3	41.9
0°-60°	6106.8	75.2
0°-90°	8117.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8117.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2673	2673	2673	2673	2673	
5°	2652	2657	2673	2673	2668	252
15°	2545	2555	2571	2581	2586	718
25°	2340	2356	2381	2412	2422	1077
35°	2048	2069	2120	2166	2186	1281
45°	1690	1715	1798	1889	1936	1302
55°	1265	1321	1465	1613	1674	1131
65°	830	901	1116	1300	1383	807
75°	364	507	743	896	942	395
85°	87	133	179	194	194	101
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2672.8	2672.8	2672.8	2672.8	2672.8
2.5°	2662.8	2667.8	2678.2	2678.2	2672.8
5°	2652.4	2657.4	2672.8	2672.8	2667.8
7.5°	2637.0	2642.5	2652.4	2662.8	2657.4
10°	2616.7	2621.7	2632.1	2642.5	2642.5
12.5°	2581.0	2585.9	2606.3	2611.7	2611.7
15°	2544.8	2555.2	2570.6	2581.0	2585.9
17.5°	2499.1	2509.0	2529.4	2550.2	2550.2
20°	2453.0	2462.9	2488.7	2509.0	2514.0
22.5°	2396.4	2411.8	2437.6	2462.9	2473.3
25°	2340.3	2355.7	2381.0	2411.8	2422.2
27.5°	2273.4	2288.7	2325.0	2360.7	2365.6
30°	2206.9	2222.3	2268.4	2299.2	2314.5
32.5°	2125.0	2145.4	2191.5	2237.6	2253.0
35°	2048.1	2068.9	2120.0	2166.2	2186.5
37.5°	1966.2	1986.6	2043.1	2099.7	2125.0
40°	1874.0	1899.8	1966.2	2027.8	2063.5
42.5°	1787.1	1812.9	1879.4	1961.3	1997.0
45°	1689.9	1715.2	1797.6	1889.3	1935.5
47.5°	1587.2	1617.9	1715.2	1828.3	1874.0
50°	1485.0	1520.7	1628.4	1756.4	1807.5
52.5°	1377.3	1423.5	1546.5	1684.9	1746.0
55°	1264.7	1321.2	1464.6	1613.0	1674.5
57.5°	1157.0	1208.6	1377.3	1536.1	1602.6
60°	1039.4	1105.9	1295.4	1459.2	1531.1
62.5°	926.8	998.7	1208.6	1382.8	1459.2
65°	829.6	901.0	1116.3	1300.4	1382.8
67.5°	701.6	798.8	1039.4	1213.6	1295.4
70°	573.5	706.5	942.2	1121.3	1198.2
72.5°	476.3	604.3	844.9	1024.1	1096.0
75°	363.7	507.1	742.7	896.0	942.2
77.5°	271.4	419.7	635.1	712.0	716.9
80°	199.9	322.5	481.3	507.1	527.4
82.5°	138.4	225.3	312.6	342.8	353.3
85°	86.8	133.0	179.1	194.5	194.5
87.5°	46.1	51.1	61.5	61.5	61.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)