

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: P388513

Luminaire Tested: **22CZ2-85VHE-UNV-L935-CD1-SWPD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P388513
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-85VHE-UNV-L935-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7193.4 lumens
Efficiency: N/A
Efficacy: 113.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

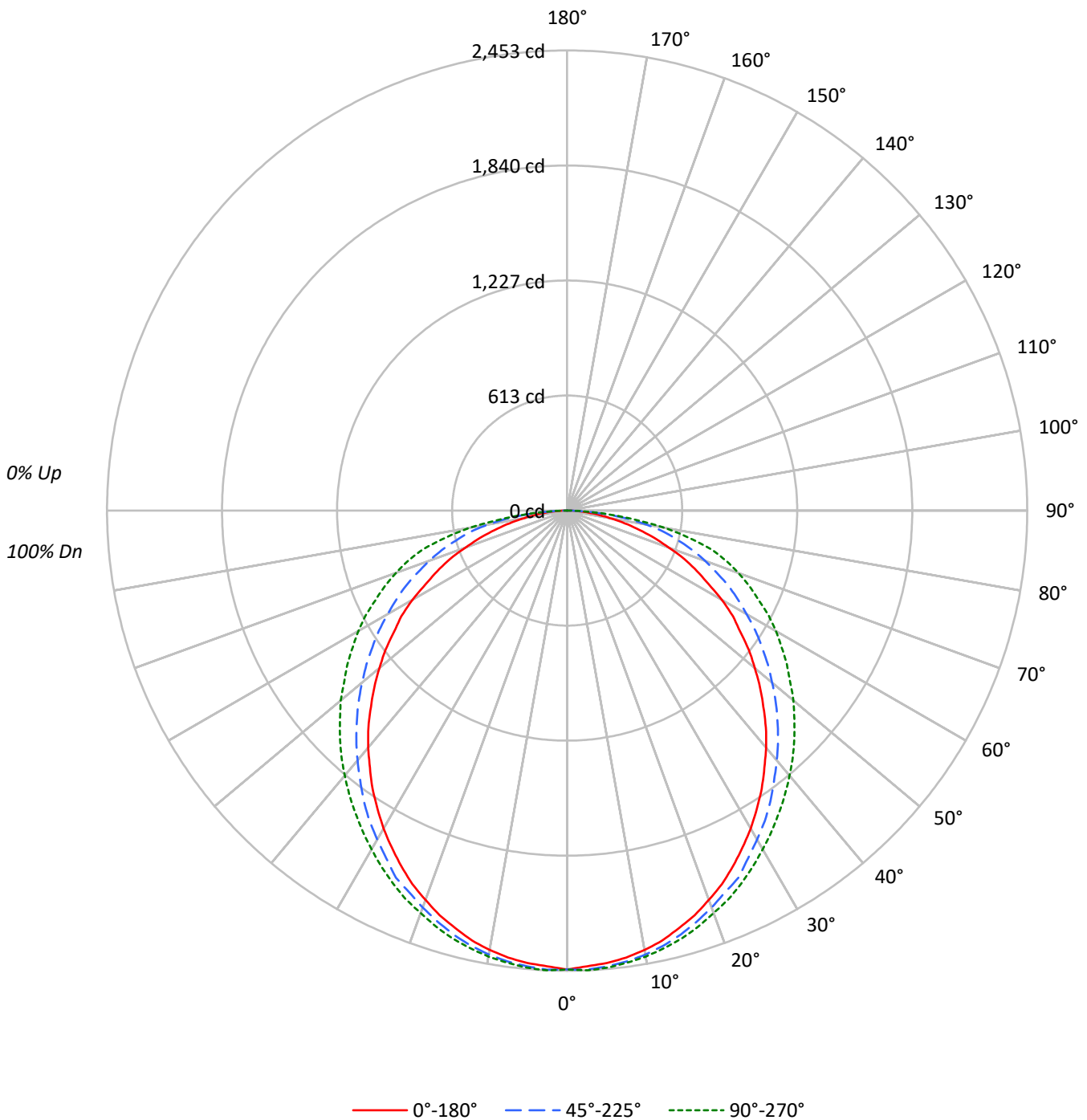
Input Watts (W): 63.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6582	6582	6582
5°	6540	6588	6607
10°	6500	6567	6596
15°	6420	6518	6577
20°	6325	6447	6538
25°	6211	6411	6516
30°	6082	6291	6478
35°	5942	6209	6465
40°	5794	6105	6478
45°	5631	6035	6520
50°	5468	5972	6594
55°	5281	5945	6709
60°	5125	5944	6915
65°	4869	6040	7167
70°	4540	6155	7631
75°	4159	6367	8244
80°	3620	6637	8119
85°	3168	5900	6447



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.3	3.2
10°-20°	658.8	9.2
20°-30°	989.1	13.7
30°-40°	1181.9	16.4
40°-50°	1228.9	17.1
50°-60°	1139.0	15.8
60°-70°	934.3	13.0
70°-80°	631.6	8.8
80°-90°	198.5	2.8
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°	1879.2	26.1
0°-40°	3061.1	42.6
0°-60°	5429.1	75.5
0°-90°	7193.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7193.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2446	2446	2446	2446	2446	
5°	2421	2425	2439	2442	2446	230
15°	2304	2315	2340	2354	2361	650
25°	2092	2110	2159	2184	2195	963
35°	1809	1834	1890	1947	1968	1131
45°	1480	1508	1586	1678	1713	1143
55°	1126	1161	1267	1380	1430	1012
65°	765	807	949	1072	1126	756
75°	400	467	612	736	793	424
85°	103	142	191	212	209	116
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2445.9	2445.9	2445.9	2445.9	2445.9
2.5°	2431.7	2438.8	2449.4	2453.0	2453.0
5°	2421.1	2424.7	2438.8	2442.3	2445.9
7.5°	2403.4	2410.5	2424.7	2428.2	2431.7
10°	2378.6	2385.7	2403.4	2410.5	2414.0
12.5°	2346.8	2353.9	2375.1	2385.7	2389.3
15°	2304.3	2314.9	2339.7	2353.9	2360.9
17.5°	2261.8	2272.4	2297.2	2318.5	2325.5
20°	2208.7	2233.5	2251.2	2279.5	2283.1
22.5°	2155.6	2169.8	2201.7	2230.0	2244.1
25°	2091.9	2109.6	2159.2	2184.0	2194.6
27.5°	2024.7	2049.4	2088.4	2127.3	2141.5
30°	1957.4	1975.1	2024.7	2070.7	2084.8
32.5°	1883.1	1907.9	1961.0	2007.0	2028.2
35°	1808.8	1833.5	1890.2	1946.8	1968.0
37.5°	1727.3	1755.7	1812.3	1879.5	1907.9
40°	1649.5	1670.7	1738.0	1819.4	1844.2
42.5°	1568.1	1592.8	1663.6	1752.1	1780.4
45°	1479.6	1507.9	1585.8	1677.8	1713.2
47.5°	1394.6	1422.9	1507.9	1599.9	1642.4
50°	1306.1	1341.5	1426.5	1532.7	1575.1
52.5°	1221.2	1253.0	1348.6	1458.3	1497.3
55°	1125.6	1161.0	1267.2	1380.5	1430.0
57.5°	1047.7	1072.5	1189.3	1306.1	1355.7
60°	952.2	984.0	1104.4	1228.3	1284.9
62.5°	849.5	902.6	1026.5	1153.9	1210.6
65°	764.6	807.0	948.6	1072.5	1125.6
67.5°	676.1	722.1	860.1	991.1	1051.3
70°	577.0	637.1	782.3	913.2	969.9
72.5°	488.5	552.2	700.8	828.3	888.4
75°	400.0	467.2	612.4	736.2	792.9
77.5°	315.0	389.4	530.9	626.5	661.9
80°	233.6	304.4	428.3	495.5	523.9
82.5°	162.8	223.0	315.0	350.4	357.5
85°	102.6	141.6	191.1	212.4	208.8
87.5°	46.0	56.6	70.8	77.9	74.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)