

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: P388510

Luminaire Tested: **22CZ2-85VHE-UNV-L930-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: P388510
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-L930-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7019.8 lumens
Efficiency: N/A
Efficacy: 110.4 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

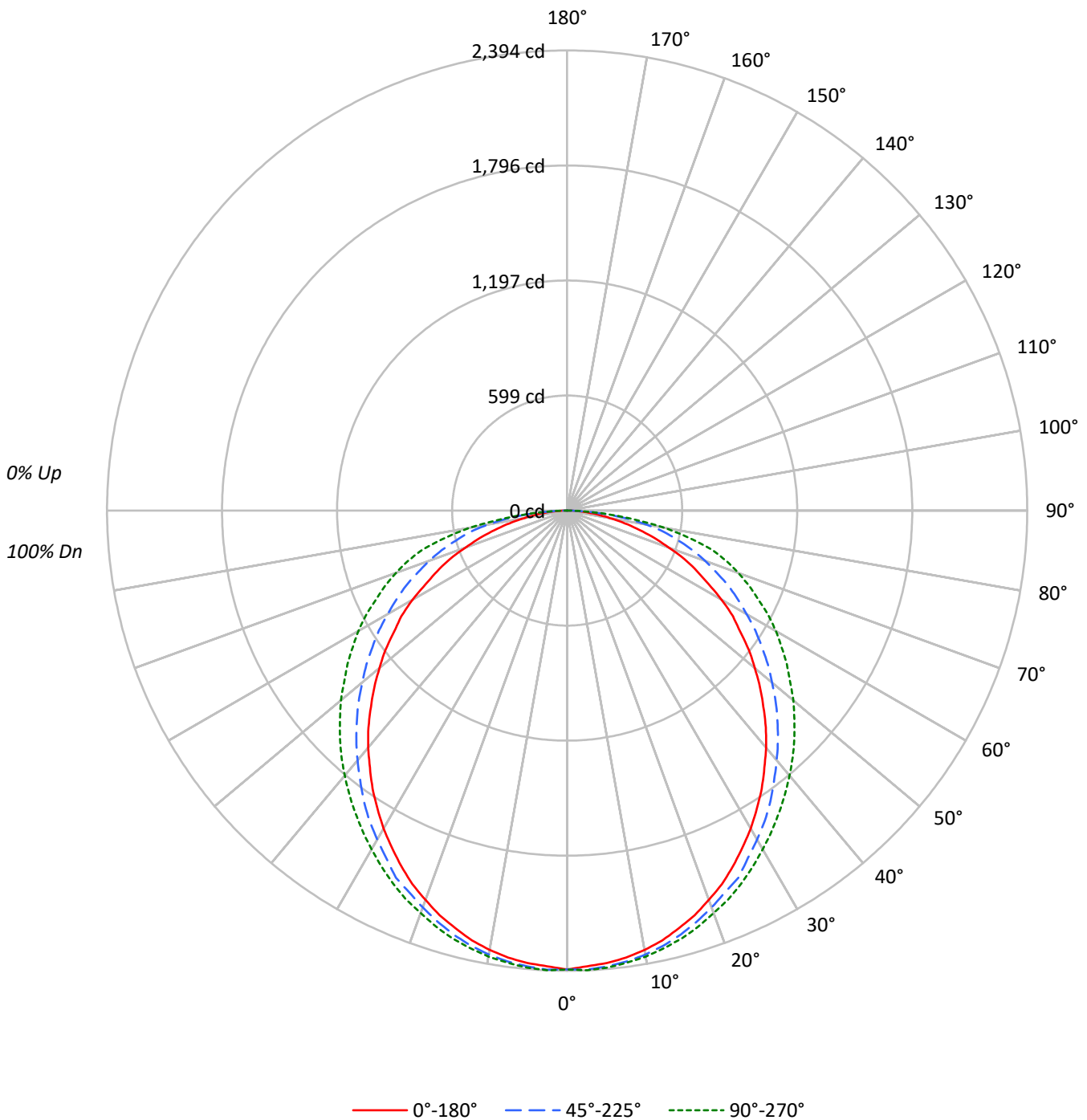
Input Watts (W): 63.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6423	6423	6423
5°	6382	6429	6448
10°	6343	6409	6437
15°	6265	6361	6419
20°	6172	6291	6380
25°	6061	6256	6359
30°	5936	6139	6322
35°	5798	6059	6309
40°	5655	5958	6322
45°	5495	5889	6362
50°	5336	5827	6435
55°	5153	5802	6547
60°	5001	5800	6748
65°	4751	5894	6994
70°	4430	6006	7447
75°	4058	6213	8044
80°	3533	6478	7922
85°	3094	5758	6292



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.7	3.2
10°-20°	642.9	9.2
20°-30°	965.2	13.7
30°-40°	1153.3	16.4
40°-50°	1199.3	17.1
50°-60°	1111.5	15.8
60°-70°	911.7	13.0
70°-80°	616.4	8.8
80°-90°	193.7	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°	1833.9	26.1
0°-40°	2987.2	42.6
0°-60°	5298.0	75.5
0°-90°	7019.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7019.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2387	2387	2387	2387	2387	
5°	2363	2366	2380	2383	2387	224
15°	2249	2259	2283	2297	2304	634
25°	2041	2059	2107	2131	2142	940
35°	1765	1789	1844	1900	1920	1103
45°	1444	1472	1548	1637	1672	1115
55°	1098	1133	1237	1347	1396	987
65°	746	788	926	1047	1098	738
75°	390	456	598	718	774	414
85°	100	138	186	207	204	114
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2386.9	2386.9	2386.9	2386.9	2386.9
2.5°	2373.0	2380.0	2390.3	2393.8	2393.8
5°	2362.7	2366.1	2380.0	2383.4	2386.9
7.5°	2345.4	2352.3	2366.1	2369.6	2373.0
10°	2321.2	2328.1	2345.4	2352.3	2355.8
12.5°	2290.1	2297.1	2317.8	2328.1	2331.6
15°	2248.7	2259.1	2283.2	2297.1	2304.0
17.5°	2207.2	2217.6	2241.8	2262.5	2269.4
20°	2155.4	2179.6	2196.9	2224.5	2228.0
22.5°	2103.6	2117.4	2148.5	2176.2	2190.0
25°	2041.4	2058.7	2107.1	2131.2	2141.6
27.5°	1975.8	2000.0	2038.0	2076.0	2089.8
30°	1910.2	1927.5	1975.8	2020.7	2034.5
32.5°	1837.6	1861.8	1913.6	1958.5	1979.3
35°	1765.1	1789.3	1844.5	1899.8	1920.5
37.5°	1685.7	1713.3	1768.6	1834.2	1861.8
40°	1609.7	1630.4	1696.0	1775.5	1799.6
42.5°	1530.2	1554.4	1623.5	1709.8	1737.5
45°	1443.9	1471.5	1547.5	1637.3	1671.8
47.5°	1361.0	1388.6	1471.5	1561.3	1602.8
50°	1274.6	1309.1	1392.0	1495.7	1537.1
52.5°	1191.7	1222.8	1316.1	1423.1	1461.1
55°	1098.4	1133.0	1236.6	1347.1	1395.5
57.5°	1022.4	1046.6	1160.6	1274.6	1323.0
60°	929.2	960.3	1077.7	1198.6	1253.9
62.5°	829.0	880.8	1001.7	1126.1	1181.3
65°	746.1	787.6	925.7	1046.6	1098.4
67.5°	659.8	704.7	839.4	967.2	1025.9
70°	563.0	621.8	763.4	891.2	946.5
72.5°	476.7	538.9	683.9	808.3	867.0
75°	390.3	456.0	597.6	718.5	773.7
77.5°	307.4	380.0	518.1	611.4	645.9
80°	228.0	297.1	418.0	483.6	511.2
82.5°	158.9	217.6	307.4	342.0	348.9
85°	100.2	138.2	186.5	207.3	203.8
87.5°	44.9	55.3	69.1	76.0	72.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)