

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: P388517

Luminaire Tested: **22CZ2-85VHE-UNV-L940-CD1-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: P388517
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-L940-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

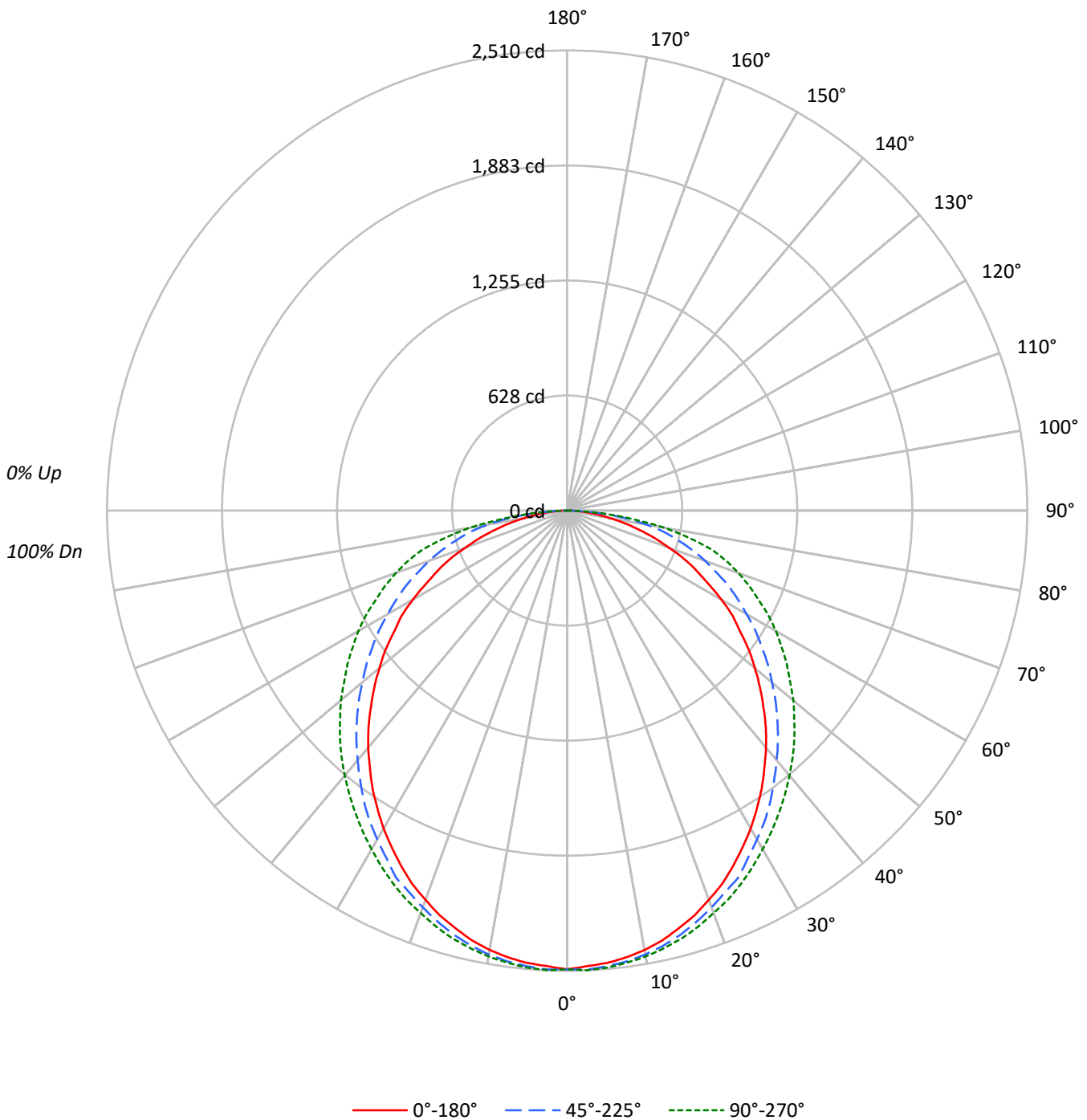
Lumens per Lamp: N/A
Luminaire Lumens: 7359.2 lumens
Efficiency: N/A
Efficacy: 115.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	6734	6734	6734
5°	6691	6740	6759
10°	6650	6719	6748
15°	6567	6668	6729
20°	6471	6595	6689
25°	6354	6559	6666
30°	6222	6436	6628
35°	6079	6352	6614
40°	5928	6246	6628
45°	5761	6174	6670
50°	5594	6110	6746
55°	5402	6082	6864
60°	5243	6081	7075
65°	4981	6180	7332
70°	4644	6297	7807
75°	4255	6514	8434
80°	3704	6791	8305
85°	3242	6036	6598



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	236.6	3.2
10°-20°	674.0	9.2
20°-30°	1011.9	13.7
30°-40°	1209.1	16.4
40°-50°	1257.3	17.1
50°-60°	1165.3	15.8
60°-70°	955.8	13.0
70°-80°	646.1	8.8
80°-90°	203.0	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°	1922.5	26.1
0°-40°	3131.6	42.6
0°-60°	5554.2	75.5
0°-90°	7359.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7359.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2502	2502	2502	2502	2502	
5°	2477	2480	2495	2499	2502	235
15°	2357	2368	2394	2408	2415	665
25°	2140	2158	2209	2234	2245	986
35°	1850	1876	1934	1992	2013	1157
45°	1514	1543	1622	1716	1753	1169
55°	1152	1188	1296	1412	1463	1035
65°	782	826	970	1097	1152	773
75°	409	478	626	753	811	434
85°	105	145	196	217	214	119
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2502.3	2502.3	2502.3	2502.3	2502.3
2.5°	2487.8	2495.0	2505.9	2509.5	2509.5
5°	2476.9	2480.5	2495.0	2498.6	2502.3
7.5°	2458.8	2466.1	2480.5	2484.2	2487.8
10°	2433.5	2440.7	2458.8	2466.1	2469.7
12.5°	2400.9	2408.1	2429.8	2440.7	2444.3
15°	2357.4	2368.3	2393.6	2408.1	2415.4
17.5°	2314.0	2324.8	2350.2	2371.9	2379.1
20°	2259.6	2285.0	2303.1	2332.1	2335.7
22.5°	2205.3	2219.8	2252.4	2281.4	2295.9
25°	2140.1	2158.2	2208.9	2234.3	2245.2
27.5°	2071.3	2096.7	2136.5	2176.4	2190.8
30°	2002.5	2020.6	2071.3	2118.4	2132.9
32.5°	1926.5	1951.8	2006.2	2053.2	2075.0
35°	1850.4	1875.8	1933.7	1991.7	2013.4
37.5°	1767.2	1796.1	1854.1	1922.9	1951.8
40°	1687.5	1709.2	1778.0	1861.3	1886.7
42.5°	1604.2	1629.5	1702.0	1792.5	1821.5
45°	1513.7	1542.6	1622.3	1716.5	1752.7
47.5°	1426.8	1455.7	1542.6	1636.8	1680.2
50°	1336.2	1372.4	1459.4	1568.0	1611.4
52.5°	1249.3	1281.9	1379.7	1491.9	1531.8
55°	1151.5	1187.8	1296.4	1412.3	1463.0
57.5°	1071.9	1097.2	1216.7	1336.2	1386.9
60°	974.1	1006.7	1129.8	1256.6	1314.5
62.5°	869.1	923.4	1050.2	1180.5	1238.5
65°	782.2	825.6	970.5	1097.2	1151.5
67.5°	691.7	738.7	880.0	1013.9	1075.5
70°	590.3	651.8	800.3	934.3	992.2
72.5°	499.7	564.9	717.0	847.4	908.9
75°	409.2	478.0	626.5	753.2	811.2
77.5°	322.3	398.3	543.2	641.0	677.2
80°	239.0	311.4	438.2	507.0	535.9
82.5°	166.6	228.1	322.3	358.5	365.7
85°	105.0	144.8	195.5	217.3	213.7
87.5°	47.1	57.9	72.4	79.7	76.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)