

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: P389399

Luminaire Tested: **22CZ2-75VHE-S-UNV-L930-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: P389399  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-75VHE-S-UNV-L930-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6551.4 lumens  
Efficiency: N/A  
Efficacy: 119.8 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

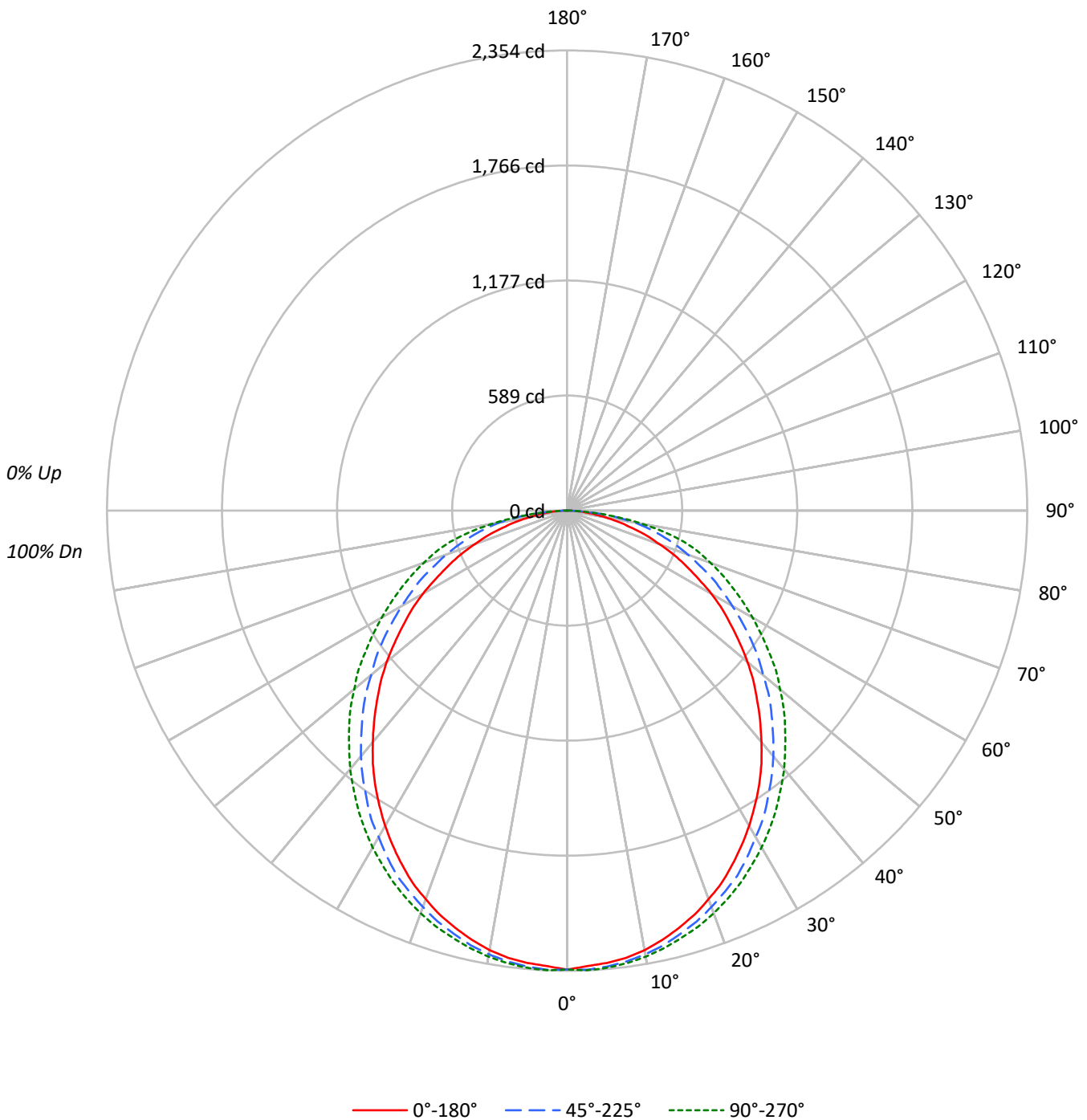
Input Watts (W): 54.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	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	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6317	6317	6317
5°	6275	6325	6341
10°	6239	6298	6331
15°	6157	6242	6302
20°	6058	6180	6276
25°	5936	6117	6235
30°	5785	5993	6183
35°	5623	5884	6125
40°	5433	5766	6067
45°	5235	5630	6003
50°	5042	5477	5951
55°	4804	5378	5909
60°	4590	5248	5889
65°	4282	5216	5956
70°	3944	5171	6133
75°	3560	5244	6451
80°	3079	5401	6064
85°	2547	4529	4529



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	222.0	3.4
10°-20°	631.8	9.6
20°-30°	945.3	14.4
30°-40°	1119.5	17.1
40°-50°	1140.9	17.4
50°-60°	1022.6	15.6
60°-70°	800.6	12.2
70°-80°	516.2	7.9
80°-90°	152.5	2.3
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°	1799.1	27.5
0°-40°	2918.6	44.5
0°-60°	5082.1	77.6
0°-90°	6551.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6551.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2348	2348	2348	2348	2348	
5°	2323	2329	2342	2344	2348	221
15°	2210	2222	2241	2259	2262	623
25°	1999	2017	2060	2088	2100	920
35°	1712	1733	1791	1846	1865	1070
45°	1376	1406	1480	1556	1577	1062
55°	1024	1058	1146	1226	1259	918
65°	672	712	819	899	935	668
75°	342	394	504	590	620	367
85°	82	113	147	147	147	97
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2347.6	2347.6	2347.6	2347.6	2347.6
2.5°	2332.3	2338.4	2350.6	2353.7	2353.7
5°	2323.1	2329.2	2341.5	2344.5	2347.6
7.5°	2307.8	2310.9	2326.2	2332.3	2335.3
10°	2283.4	2289.5	2304.8	2313.9	2317.0
12.5°	2249.8	2258.9	2277.3	2289.5	2292.5
15°	2210.0	2222.2	2240.6	2258.9	2262.0
17.5°	2167.2	2179.5	2203.9	2225.3	2231.4
20°	2115.3	2130.5	2158.1	2182.5	2191.7
22.5°	2063.3	2075.5	2109.1	2139.7	2148.9
25°	1999.1	2017.4	2060.2	2087.7	2100.0
27.5°	1931.9	1953.3	1996.0	2032.7	2045.0
30°	1861.6	1882.9	1928.8	1974.6	1989.9
32.5°	1788.2	1812.6	1867.7	1913.5	1928.8
35°	1711.8	1733.2	1791.2	1846.3	1864.6
37.5°	1632.3	1650.6	1717.9	1776.0	1794.3
40°	1546.7	1571.2	1641.5	1708.7	1727.1
42.5°	1461.1	1488.6	1558.9	1632.3	1650.6
45°	1375.5	1406.1	1479.5	1555.9	1577.3
47.5°	1293.0	1317.5	1400.0	1473.3	1503.9
50°	1204.4	1228.8	1308.3	1390.8	1421.4
52.5°	1112.7	1146.3	1231.9	1311.3	1348.0
55°	1024.0	1057.6	1146.3	1225.7	1259.4
57.5°	941.5	969.0	1060.7	1143.2	1176.8
60°	852.8	877.3	975.1	1063.7	1094.3
62.5°	758.1	794.8	895.6	978.2	1014.8
65°	672.5	712.2	819.2	898.7	935.4
67.5°	593.0	629.7	733.6	819.2	858.9
70°	501.3	550.2	657.2	742.8	779.5
72.5°	427.9	470.7	580.8	666.4	706.1
75°	342.4	394.3	504.4	589.9	620.5
77.5°	272.0	324.0	427.9	495.2	510.5
80°	198.7	250.7	348.5	382.1	391.3
82.5°	134.5	183.4	250.7	259.8	262.9
85°	82.5	113.1	146.7	146.7	146.7
87.5°	39.7	45.9	52.0	48.9	48.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)