

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: P389403

Luminaire Tested: **22CZ2-75VHE-S-UNV-L940-CD1-SDWPD1-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: P389403  
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-L940-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6618.0 lumens  
Efficiency: N/A  
Efficacy: 121.0 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

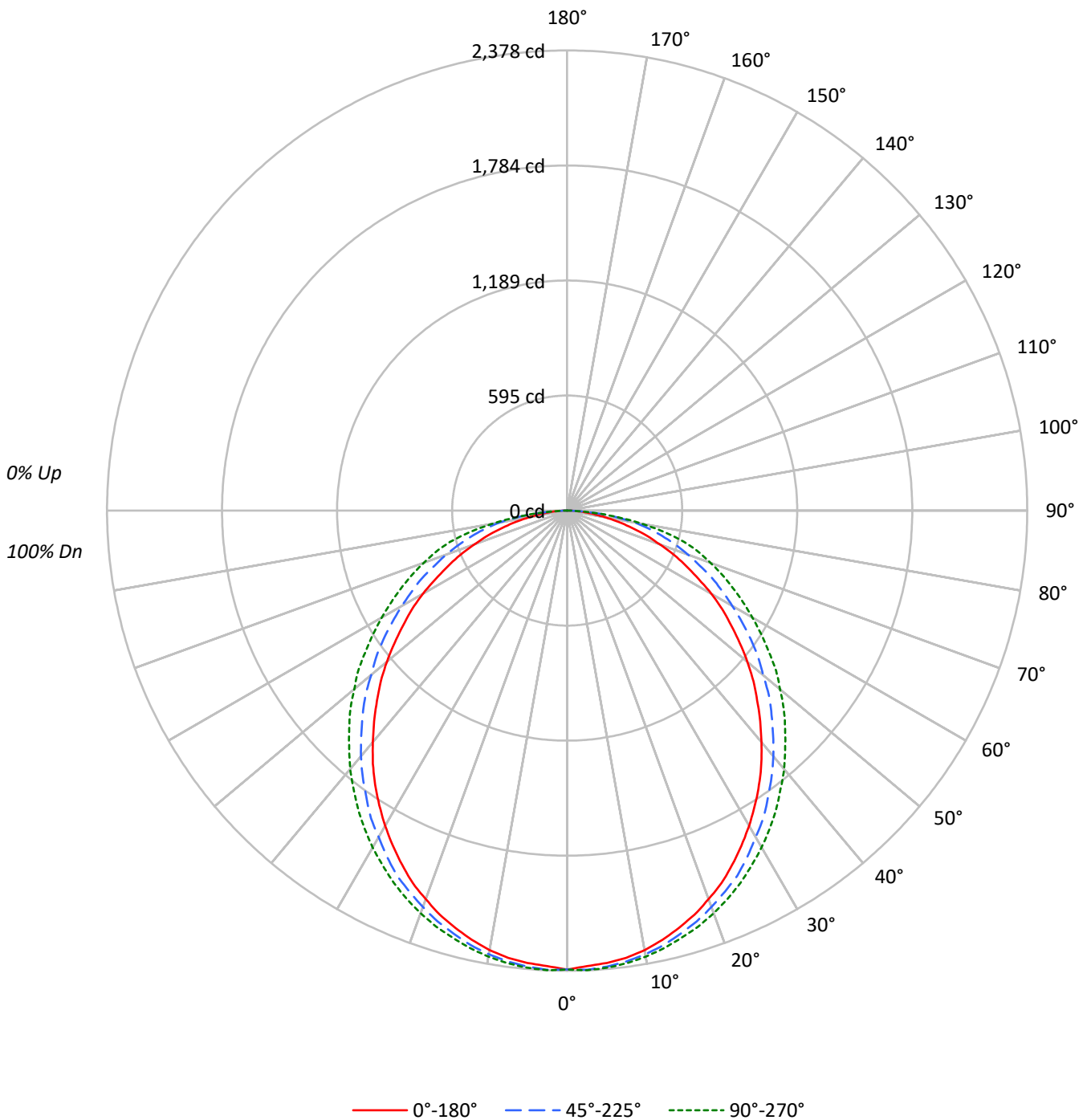
Input Watts (W): 54.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	6381	6381	6381
5°	6339	6389	6406
10°	6303	6362	6396
15°	6220	6306	6366
20°	6119	6243	6340
25°	5996	6179	6298
30°	5843	6054	6246
35°	5681	5944	6188
40°	5488	5825	6128
45°	5288	5687	6063
50°	5093	5533	6011
55°	4853	5432	5969
60°	4637	5301	5949
65°	4325	5269	6017
70°	3984	5223	6195
75°	3595	5297	6517
80°	3110	5455	6124
85°	2575	4576	4576



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	224.3	3.4
10°-20°	638.2	9.6
20°-30°	954.9	14.4
30°-40°	1130.9	17.1
40°-50°	1152.5	17.4
50°-60°	1033.0	15.6
60°-70°	808.7	12.2
70°-80°	521.5	7.9
80°-90°	154.1	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°	1817.4	27.5
0°-40°	2948.3	44.5
0°-60°	5133.7	77.6
0°-90°	6618.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6618.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2371	2371	2371	2371	2371	
5°	2347	2353	2365	2368	2371	223
15°	2232	2245	2263	2282	2285	629
25°	2019	2038	2081	2109	2121	930
35°	1729	1751	1810	1865	1884	1081
45°	1390	1420	1494	1572	1593	1073
55°	1034	1068	1158	1238	1272	927
65°	679	720	828	908	945	675
75°	346	398	510	596	627	371
85°	83	114	148	148	148	98
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2371.4	2371.4	2371.4	2371.4	2371.4
2.5°	2356.0	2362.2	2374.5	2377.6	2377.6
5°	2346.7	2352.9	2365.3	2368.3	2371.4
7.5°	2331.3	2334.4	2349.8	2356.0	2359.1
10°	2306.6	2312.8	2328.2	2337.5	2340.6
12.5°	2272.6	2281.9	2300.4	2312.8	2315.9
15°	2232.5	2244.8	2263.4	2281.9	2285.0
17.5°	2189.3	2201.6	2226.3	2247.9	2254.1
20°	2136.8	2152.2	2180.0	2204.7	2214.0
22.5°	2084.3	2096.6	2130.6	2161.5	2170.7
25°	2019.4	2038.0	2081.2	2109.0	2121.3
27.5°	1951.5	1973.1	2016.3	2053.4	2065.7
30°	1880.5	1902.1	1948.4	1994.7	2010.2
32.5°	1806.4	1831.1	1886.7	1933.0	1948.4
35°	1729.2	1750.8	1809.5	1865.0	1883.6
37.5°	1648.9	1667.4	1735.3	1794.0	1812.5
40°	1562.4	1587.1	1658.2	1726.1	1744.6
42.5°	1476.0	1503.8	1574.8	1648.9	1667.4
45°	1389.5	1420.4	1494.5	1571.7	1593.3
47.5°	1306.1	1330.8	1414.2	1488.3	1519.2
50°	1216.6	1241.3	1321.6	1405.0	1435.8
52.5°	1124.0	1157.9	1244.4	1324.7	1361.7
55°	1034.4	1068.4	1157.9	1238.2	1272.2
57.5°	951.0	978.8	1071.5	1154.8	1188.8
60°	861.5	886.2	985.0	1074.6	1105.4
62.5°	765.8	802.8	904.7	988.1	1025.2
65°	679.3	719.5	827.5	907.8	944.9
67.5°	599.0	636.1	741.1	827.5	867.7
70°	506.4	555.8	663.9	750.3	787.4
72.5°	432.3	475.5	586.7	673.1	713.3
75°	345.8	398.3	509.5	595.9	626.8
77.5°	274.8	327.3	432.3	500.2	515.7
80°	200.7	253.2	352.0	386.0	395.2
82.5°	135.9	185.3	253.2	262.5	265.6
85°	83.4	114.2	148.2	148.2	148.2
87.5°	40.1	46.3	52.5	49.4	49.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)