

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: P389807

Luminaire Tested: **24CZ2-55VHE-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: P389807
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-55VHE-S-UNV-L930-CD1-U
Description: 2x4 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: 4828.8 lumens
Efficiency: N/A
Efficacy: 133.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

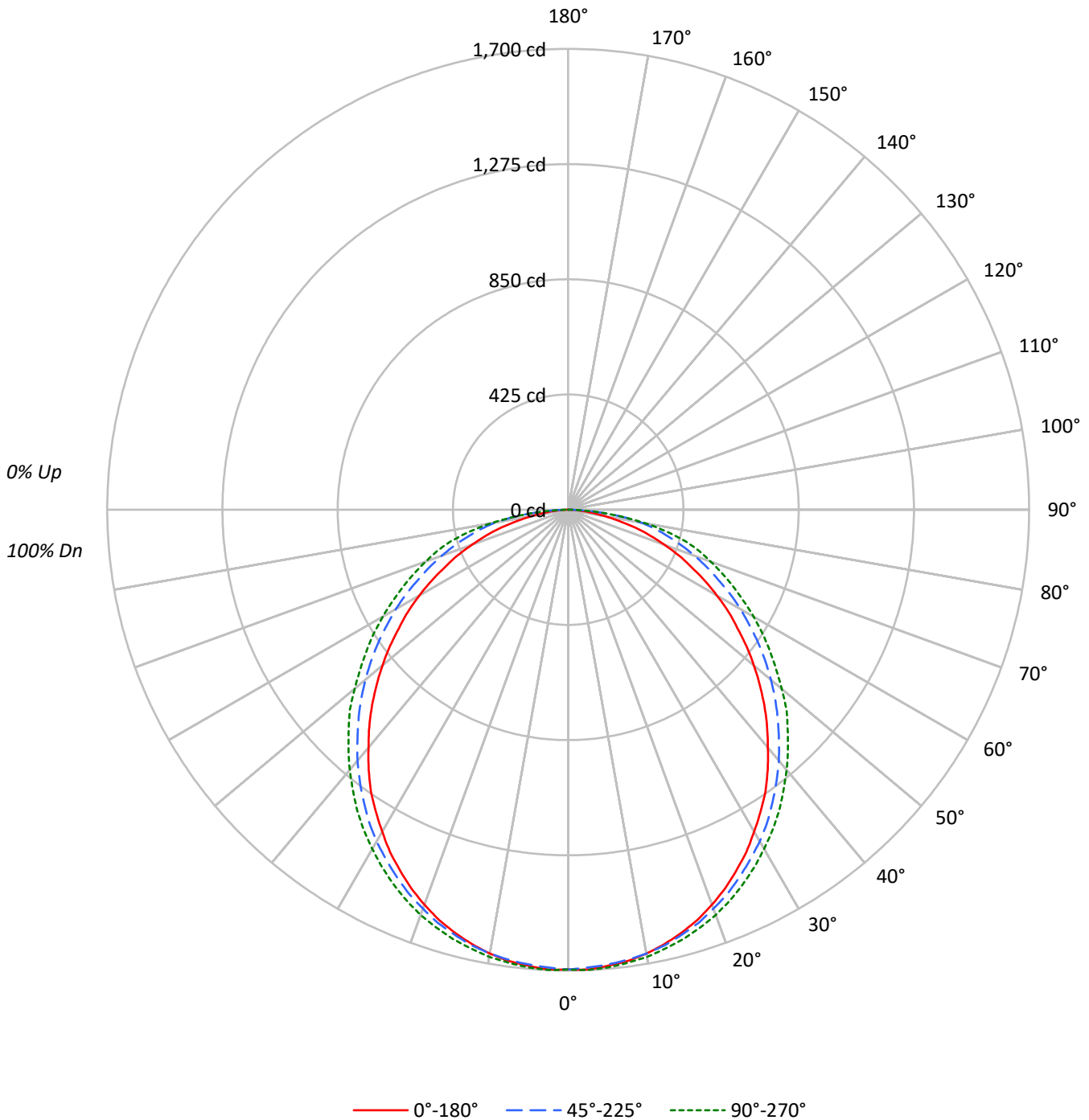
Input Watts (W): 36.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2282	2282	2282
5°	2281	2275	2289
10°	2272	2272	2288
15°	2250	2260	2284
20°	2220	2242	2277
25°	2179	2220	2263
30°	2130	2195	2245
35°	2084	2159	2227
40°	2012	2123	2201
45°	1947	2081	2177
50°	1872	2042	2151
55°	1788	2004	2130
60°	1705	1973	2126
65°	1597	1939	2139
70°	1478	1949	2196
75°	1324	1985	2320
80°	1069	2104	2270
85°	804	1846	1800



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.6	3.3
10°-20°	458.9	9.5
20°-30°	689.8	14.3
30°-40°	821.7	17.0
40°-50°	840.9	17.4
50°-60°	757.1	15.7
60°-70°	594.6	12.3
70°-80°	385.9	8.0
80°-90°	119.3	2.5
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°	1309.3	27.1
0°-40°	2131.0	44.1
0°-60°	3729.0	77.2
0°-90°	4828.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4828.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1696	1696	1696	1696	1696	
5°	1689	1692	1684	1693	1695	160
15°	1615	1620	1623	1637	1640	455
25°	1468	1480	1496	1520	1525	676
35°	1268	1284	1314	1347	1356	791
45°	1023	1048	1094	1135	1144	789
55°	762	796	854	899	908	683
65°	502	540	609	660	672	499
75°	255	304	382	434	446	269
85°	52	97	120	117	117	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1696.4	1696.4	1696.4	1696.4	1696.4
2.5°	1697.9	1697.9	1690.3	1697.9	1699.5
5°	1688.7	1691.8	1684.1	1693.3	1694.9
7.5°	1679.5	1679.5	1674.9	1684.1	1685.7
10°	1662.6	1664.2	1662.6	1673.4	1674.9
12.5°	1641.2	1644.2	1645.8	1656.5	1658.0
15°	1615.1	1619.7	1622.8	1636.6	1639.6
17.5°	1586.0	1590.6	1598.2	1613.6	1616.6
20°	1550.7	1556.8	1566.0	1586.0	1590.6
22.5°	1512.3	1518.5	1533.8	1552.2	1559.9
25°	1467.9	1480.1	1495.5	1520.0	1524.6
27.5°	1423.4	1434.1	1454.0	1480.1	1486.3
30°	1371.2	1388.1	1412.6	1438.7	1444.8
32.5°	1320.6	1337.5	1366.6	1394.2	1401.9
35°	1268.5	1283.8	1314.5	1346.7	1355.9
37.5°	1208.6	1228.6	1262.3	1294.5	1303.7
40°	1145.8	1170.3	1208.6	1242.4	1253.1
42.5°	1085.9	1112.0	1150.4	1187.2	1199.4
45°	1023.0	1047.6	1093.6	1135.0	1144.2
47.5°	958.6	986.2	1035.3	1076.7	1092.1
50°	894.2	923.4	975.5	1018.4	1027.6
52.5°	829.8	860.5	915.7	961.7	966.3
55°	762.3	796.0	854.3	898.8	908.0
57.5°	700.9	730.1	793.0	839.0	849.7
60°	633.5	665.7	733.2	776.1	789.9
62.5°	569.0	602.8	673.3	716.3	728.6
65°	501.6	539.9	608.9	659.5	671.8
67.5°	443.3	480.1	553.7	602.8	615.1
70°	375.8	417.2	495.4	546.0	558.3
72.5°	317.5	360.4	438.7	487.8	506.2
75°	254.6	303.7	381.9	434.1	446.3
77.5°	193.3	250.0	329.8	369.6	369.6
80°	138.0	197.9	271.5	289.9	293.0
82.5°	90.5	148.8	200.9	199.4	199.4
85°	52.1	96.6	119.6	116.6	116.6
87.5°	19.9	39.9	42.9	42.9	41.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)