

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: P388875

Luminaire Tested: **24CZ2-55VHE-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: P388875
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-55VHE-UNV-L940-CD1-SDWPD1-U
Description: 2x4 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: 4642.3 lumens
Efficiency: N/A
Efficacy: 128.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

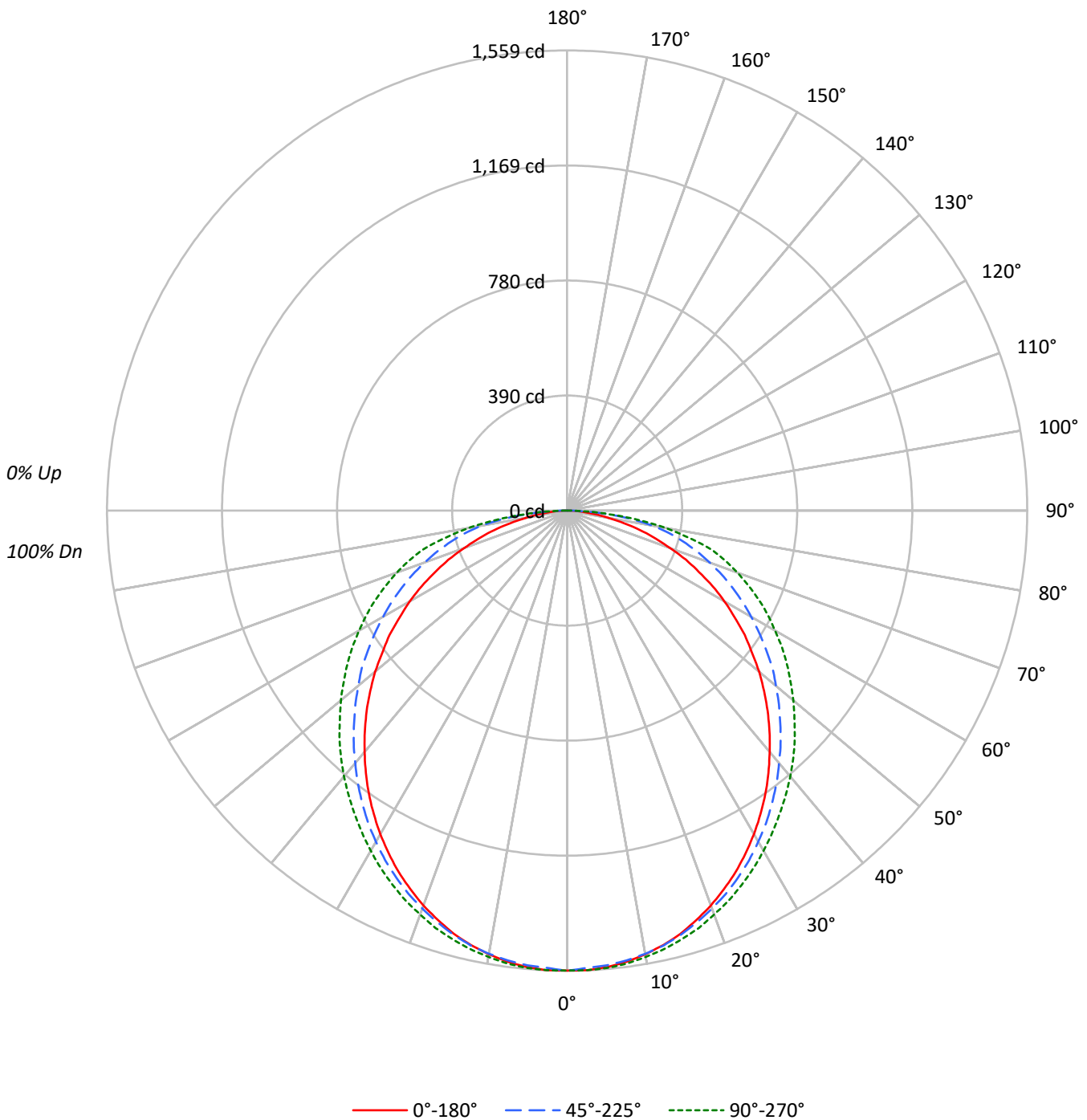
Input Watts (W): 36.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2097	2097	2097
5°	2097	2088	2101
10°	2085	2083	2098
15°	2068	2072	2093
20°	2039	2054	2085
25°	2006	2036	2077
30°	1967	2012	2068
35°	1924	1987	2061
40°	1875	1962	2065
45°	1828	1943	2075
50°	1777	1933	2095
55°	1723	1930	2133
60°	1655	1939	2189
65°	1569	1968	2284
70°	1457	2017	2413
75°	1329	2118	2617
80°	1093	2281	2617
85°	837	2104	2248



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.4	3.2
10°-20°	420.8	9.1
20°-30°	633.3	13.6
30°-40°	758.9	16.3
40°-50°	790.9	17.0
50°-60°	735.8	15.9
60°-70°	606.0	13.1
70°-80°	412.8	8.9
80°-90°	136.3	2.9
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°	1201.6	25.9
0°-40°	1960.5	42.2
0°-60°	3487.2	75.1
0°-90°	4642.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4642.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1559	1559	1559	1559	1559	
5°	1552	1552	1546	1554	1556	147
15°	1484	1486	1487	1501	1503	418
25°	1351	1357	1371	1394	1399	622
35°	1171	1185	1210	1243	1255	732
45°	961	981	1021	1072	1091	741
55°	734	759	823	888	910	655
65°	493	534	618	691	717	489
75°	256	313	408	480	504	270
85°	54	105	136	146	146	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1558.6	1558.6	1558.6	1558.6	1558.6
2.5°	1558.6	1558.6	1550.9	1558.6	1558.6
5°	1552.4	1552.4	1546.2	1554.0	1555.5
7.5°	1541.6	1543.1	1536.9	1546.2	1547.8
10°	1526.1	1527.6	1524.6	1533.8	1535.4
12.5°	1507.5	1509.1	1509.1	1519.9	1521.5
15°	1484.3	1485.8	1487.4	1501.3	1502.9
17.5°	1454.8	1459.5	1462.6	1479.6	1482.7
20°	1423.8	1428.5	1434.7	1453.3	1456.4
22.5°	1388.2	1394.4	1405.3	1425.4	1430.0
25°	1351.0	1357.2	1371.2	1394.4	1399.1
27.5°	1309.2	1318.5	1335.5	1360.3	1366.5
30°	1265.8	1275.1	1295.2	1321.6	1330.9
32.5°	1219.3	1231.7	1255.0	1284.4	1293.7
35°	1171.3	1185.2	1210.0	1242.6	1255.0
37.5°	1120.2	1135.7	1165.1	1200.7	1216.2
40°	1067.5	1086.1	1117.1	1158.9	1175.9
42.5°	1014.8	1031.9	1070.6	1115.5	1134.1
45°	960.6	980.7	1021.0	1072.1	1090.7
47.5°	904.8	925.0	973.0	1027.2	1044.3
50°	849.0	869.2	923.4	980.7	1000.9
52.5°	788.6	815.0	876.9	934.3	954.4
55°	734.4	759.2	822.7	887.8	909.5
57.5°	672.4	701.9	771.6	839.7	863.0
60°	615.1	646.1	720.4	790.2	813.4
62.5°	556.2	590.3	669.3	740.6	766.9
65°	492.7	534.5	618.2	691.0	717.3
67.5°	435.4	478.7	567.1	641.4	664.7
70°	370.3	423.0	512.8	587.2	613.5
72.5°	314.5	367.2	461.7	534.5	560.9
75°	255.6	313.0	407.5	480.3	503.5
77.5°	196.8	260.3	354.8	410.6	418.3
80°	141.0	207.6	294.4	326.9	337.8
82.5°	99.2	159.6	216.9	238.6	244.8
85°	54.2	105.4	136.3	145.6	145.6
87.5°	23.2	44.9	54.2	55.8	57.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)