

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: P389813

Luminaire Tested: **24CZ2-55VHE-S-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: P389813
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-L940-CD1-U
Description: 2x4 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: 4999.4 lumens
Efficiency: N/A
Efficacy: 138.5 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

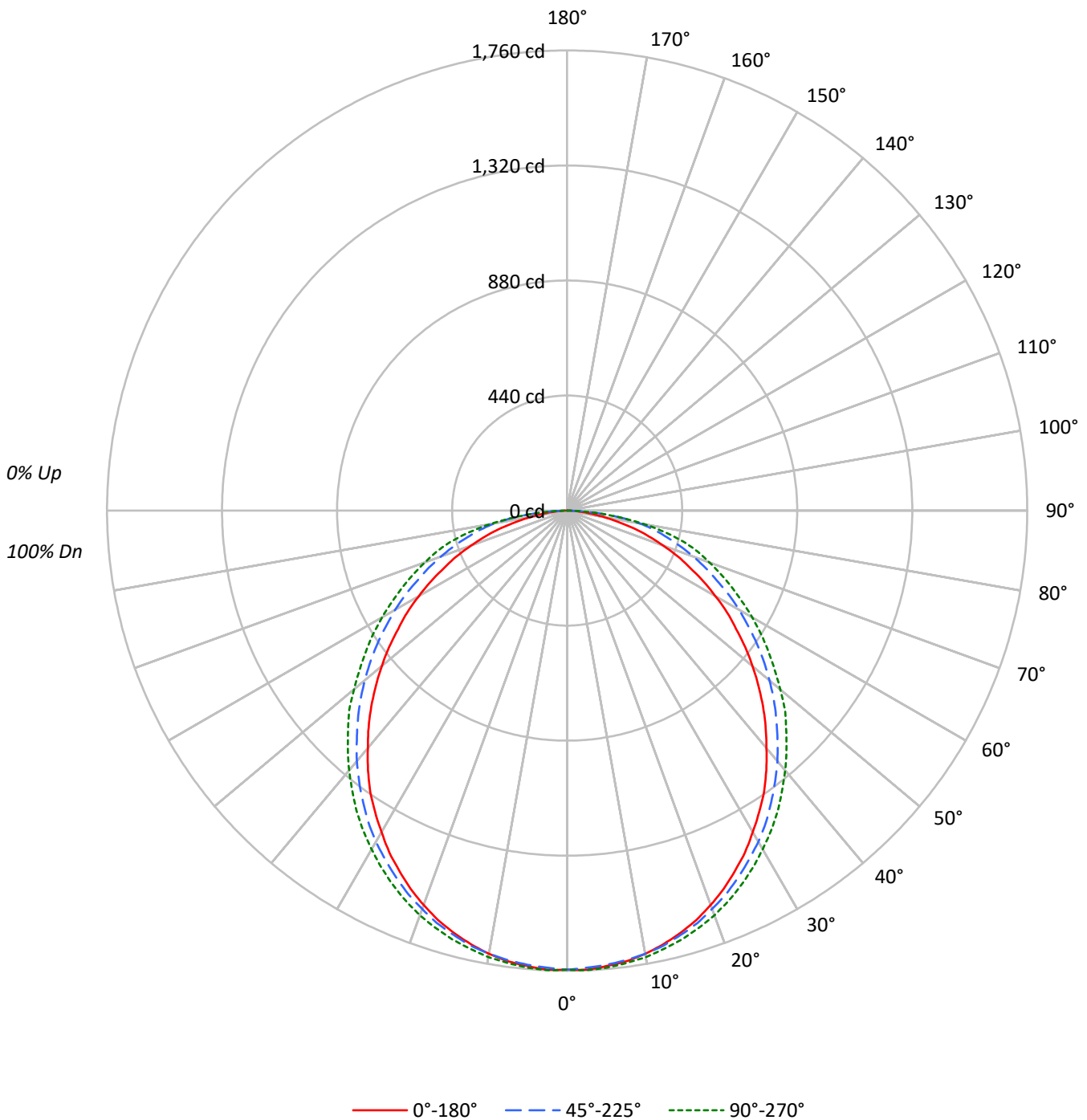
Input Watts (W): 36.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2363	2363	2363
5°	2361	2355	2370
10°	2352	2352	2369
15°	2329	2340	2365
20°	2299	2321	2358
25°	2256	2299	2343
30°	2206	2272	2324
35°	2157	2235	2306
40°	2083	2198	2279
45°	2015	2154	2254
50°	1938	2114	2227
55°	1851	2075	2205
60°	1765	2043	2201
65°	1653	2007	2214
70°	1531	2018	2274
75°	1370	2056	2402
80°	1107	2178	2350
85°	834	1913	1863



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.3	3.3
10°-20°	475.1	9.5
20°-30°	714.2	14.3
30°-40°	850.7	17.0
40°-50°	870.7	17.4
50°-60°	783.8	15.7
60°-70°	615.6	12.3
70°-80°	399.5	8.0
80°-90°	123.6	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°	1355.6	27.1
0°-40°	2206.3	44.1
0°-60°	3860.8	77.2
0°-90°	4999.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4999.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1756	1756	1756	1756	1756	
5°	1748	1752	1744	1753	1755	166
15°	1672	1677	1680	1694	1698	472
25°	1520	1532	1548	1574	1578	700
35°	1313	1329	1361	1394	1404	819
45°	1059	1085	1132	1175	1185	817
55°	789	824	884	931	940	708
65°	519	559	630	683	696	517
75°	264	314	395	449	462	279
85°	54	100	124	121	121	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1756.3	1756.3	1756.3	1756.3	1756.3
2.5°	1757.9	1757.9	1750.0	1757.9	1759.5
5°	1748.4	1751.6	1743.6	1753.1	1754.7
7.5°	1738.9	1738.9	1734.1	1743.6	1745.2
10°	1721.4	1723.0	1721.4	1732.5	1734.1
12.5°	1699.2	1702.3	1703.9	1715.0	1716.6
15°	1672.2	1676.9	1680.1	1694.4	1697.6
17.5°	1642.0	1646.8	1654.7	1670.6	1673.7
20°	1605.5	1611.8	1621.3	1642.0	1646.8
22.5°	1565.8	1572.1	1588.0	1607.1	1615.0
25°	1519.7	1532.4	1548.3	1573.7	1578.5
27.5°	1473.7	1484.8	1505.4	1532.4	1538.8
30°	1419.7	1437.1	1462.5	1489.5	1495.9
32.5°	1367.3	1384.7	1414.9	1443.5	1451.4
35°	1313.3	1329.2	1360.9	1394.3	1403.8
37.5°	1251.3	1272.0	1306.9	1340.3	1349.8
40°	1186.2	1211.6	1251.3	1286.3	1297.4
42.5°	1124.3	1151.3	1191.0	1229.1	1241.8
45°	1059.2	1084.6	1132.2	1175.1	1184.6
47.5°	992.5	1021.1	1071.9	1114.8	1130.7
50°	925.8	956.0	1010.0	1054.4	1064.0
52.5°	859.1	890.9	948.0	995.7	1000.4
55°	789.2	824.2	884.5	930.6	940.1
57.5°	725.7	755.9	821.0	868.6	879.7
60°	655.8	689.2	759.1	803.5	817.8
62.5°	589.1	624.1	697.1	741.6	754.3
65°	519.3	559.0	630.4	682.8	695.5
67.5°	458.9	497.0	573.3	624.1	636.8
70°	389.1	431.9	512.9	565.3	578.0
72.5°	328.7	373.2	454.2	505.0	524.0
75°	263.6	314.4	395.4	449.4	462.1
77.5°	200.1	258.8	341.4	382.7	382.7
80°	142.9	204.9	281.1	300.1	303.3
82.5°	93.7	154.0	208.0	206.4	206.4
85°	54.0	100.0	123.9	120.7	120.7
87.5°	20.6	41.3	44.5	44.5	42.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)