

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: P388874

Luminaire Tested: **24CZ2-55VHE-SQR-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: P388874
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-55VHE-SQR-UNV-L930-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4413.6 lumens
Efficiency: N/A
Efficacy: 122.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

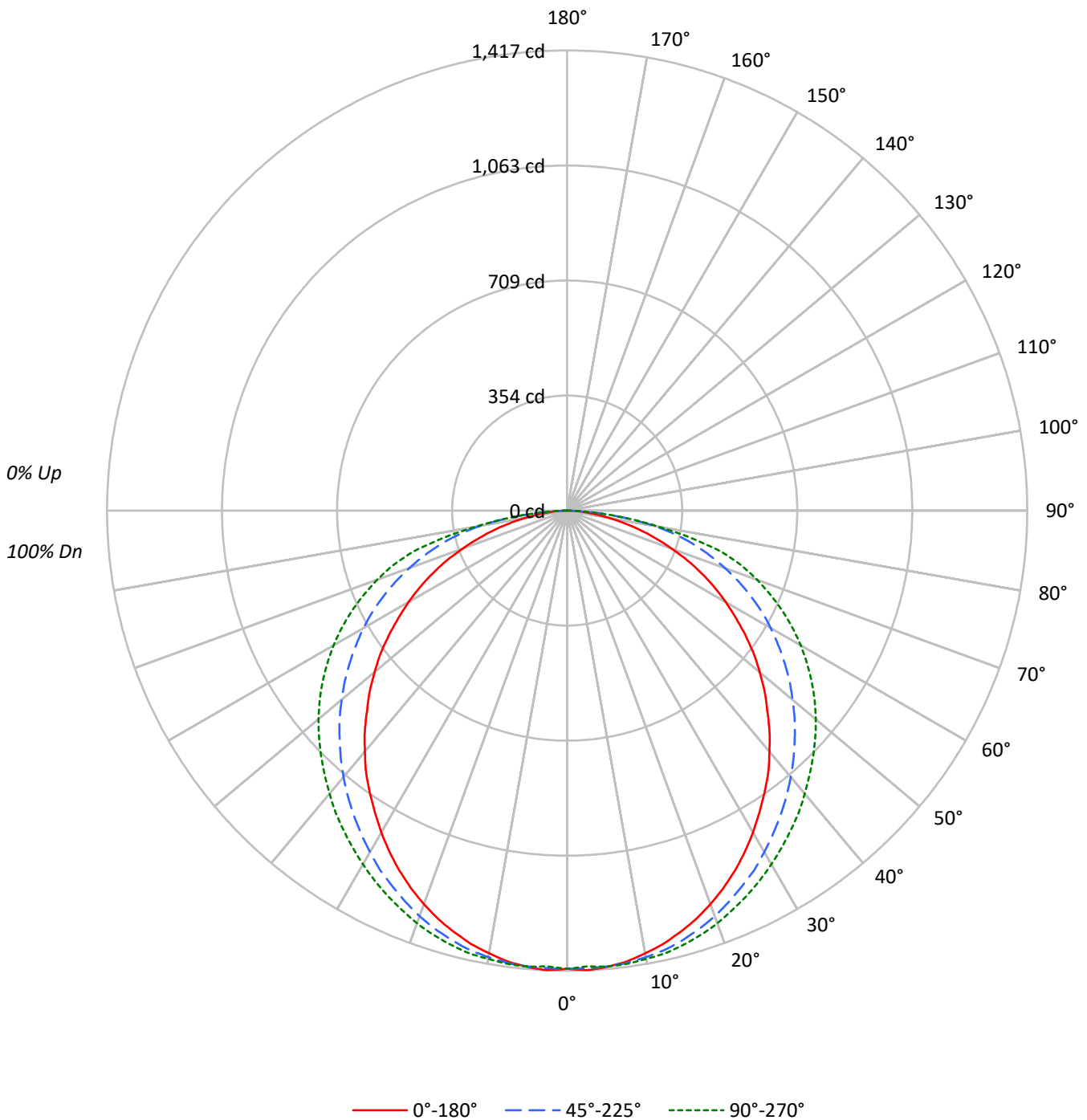
Input Watts (W): 36.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1898	1898	1898
5°	1905	1903	1903
10°	1892	1908	1916
15°	1872	1908	1929
20°	1847	1903	1937
25°	1815	1893	1943
30°	1778	1886	1954
35°	1740	1882	1973
40°	1702	1881	1999
45°	1658	1886	2038
50°	1620	1897	2093
55°	1573	1918	2157
60°	1518	1949	2235
65°	1452	1986	2329
70°	1347	2035	2448
75°	1220	2106	2561
80°	1027	2111	2202
85°	787	1598	1598



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.9	3.0
10°-20°	385.3	8.7
20°-30°	585.2	13.3
30°-40°	711.9	16.1
40°-50°	757.9	17.2
50°-60°	721.9	16.4
60°-70°	603.7	13.7
70°-80°	402.5	9.1
80°-90°	111.4	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°	1104.5	25.0
0°-40°	1816.3	41.2
0°-60°	3296.1	74.7
0°-90°	4413.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4413.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1411	1411	1411	1411	1411	
5°	1411	1402	1409	1409	1409	134
15°	1344	1347	1370	1380	1385	379
25°	1223	1239	1275	1297	1309	563
35°	1060	1090	1146	1183	1201	663
45°	872	918	991	1046	1071	674
55°	670	729	818	889	920	599
65°	456	523	624	701	732	451
75°	235	309	405	474	493	249
85°	51	95	104	102	104	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1410.8	1410.8	1410.8	1410.8	1410.8
2.5°	1416.6	1406.4	1410.8	1410.8	1405.0
5°	1410.8	1402.1	1409.3	1409.3	1409.3
7.5°	1400.6	1393.3	1405.0	1407.9	1407.9
10°	1384.6	1381.7	1396.2	1400.6	1402.1
12.5°	1367.1	1365.6	1386.0	1391.9	1396.2
15°	1343.8	1346.7	1370.0	1380.2	1384.6
17.5°	1319.0	1324.8	1351.0	1365.6	1370.0
20°	1289.8	1298.6	1329.2	1343.8	1352.5
22.5°	1257.8	1270.9	1303.0	1320.4	1330.6
25°	1222.8	1238.8	1275.3	1297.1	1308.8
27.5°	1184.9	1205.3	1247.6	1272.3	1284.0
30°	1144.1	1167.4	1214.0	1243.2	1257.8
32.5°	1101.8	1129.5	1180.5	1212.6	1230.1
35°	1059.6	1090.2	1145.5	1183.4	1200.9
37.5°	1017.3	1047.9	1109.1	1149.9	1171.8
40°	969.2	1005.6	1071.2	1116.4	1138.3
42.5°	922.6	961.9	1031.9	1081.4	1104.7
45°	871.5	918.2	991.1	1046.4	1071.2
47.5°	824.9	871.5	950.3	1008.5	1036.2
50°	773.9	823.5	906.5	970.7	999.8
52.5°	724.3	775.4	862.8	931.3	960.5
55°	670.4	728.7	817.6	889.0	919.6
57.5°	616.5	679.2	771.0	845.3	875.9
60°	564.0	628.2	724.3	798.7	830.7
62.5°	511.6	575.7	676.3	752.0	782.6
65°	456.2	523.2	623.8	701.0	731.6
67.5°	400.8	470.8	571.3	648.6	677.7
70°	342.5	416.8	517.4	593.2	622.3
72.5°	288.6	362.9	462.0	536.3	564.0
75°	234.6	309.0	405.2	473.7	492.6
77.5°	182.2	256.5	342.5	387.7	392.1
80°	132.6	202.6	272.5	285.7	284.2
82.5°	88.9	151.6	188.0	189.5	193.8
85°	51.0	94.7	103.5	102.0	103.5
87.5°	20.4	33.5	29.1	21.9	21.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)