

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-SQR-UNV-L935-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 (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-L935-CD1-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4412.8 lumens  
Efficiency: N/A  
Efficacy: 122.2 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

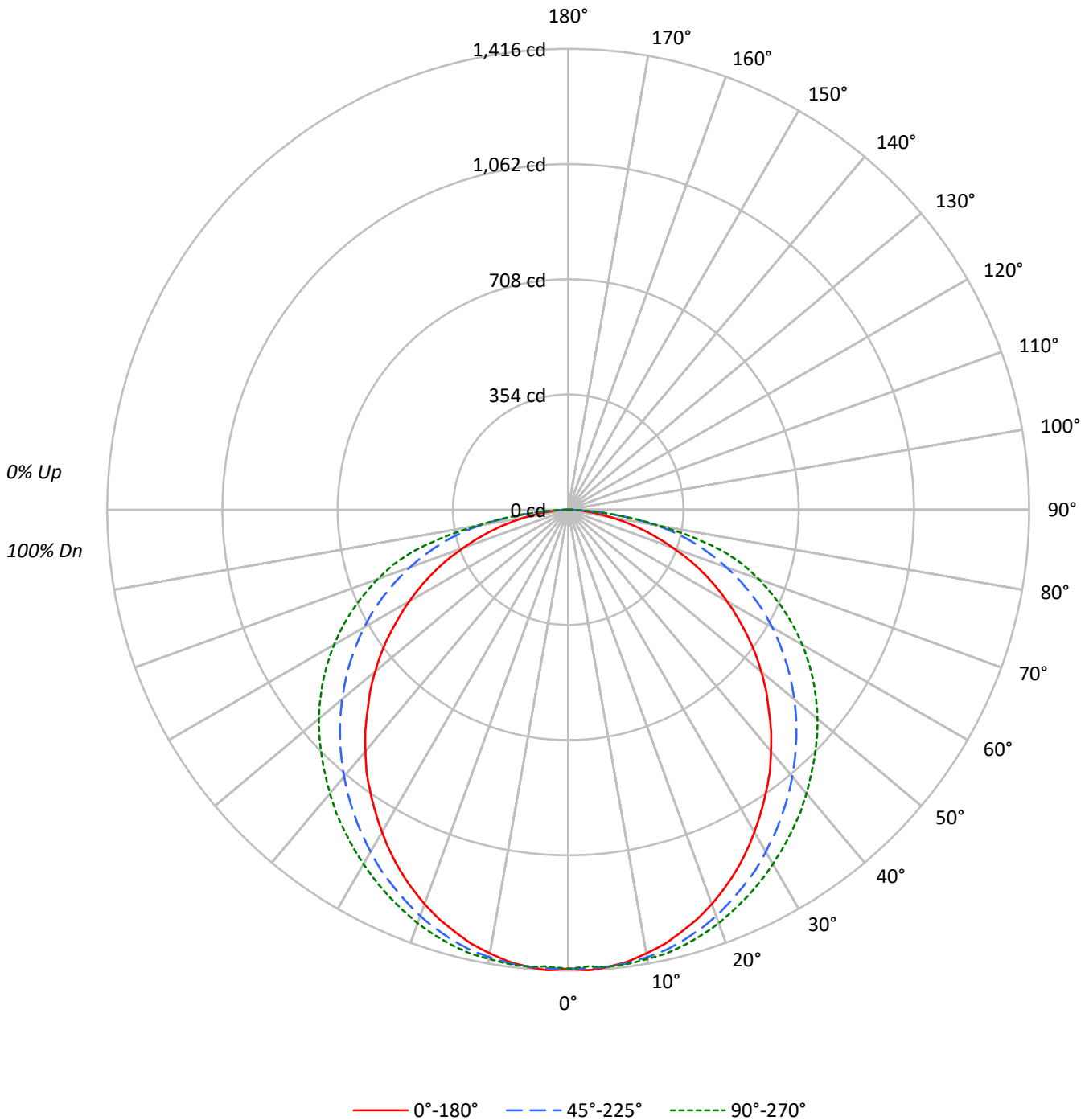
Input Watts (W): 36.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1891	1907	1915
15°	1871	1908	1928
20°	1847	1903	1936
25°	1815	1893	1943
30°	1777	1886	1954
35°	1740	1881	1972
40°	1702	1881	1999
45°	1658	1885	2038
50°	1620	1897	2092
55°	1572	1918	2157
60°	1517	1949	2235
65°	1452	1986	2329
70°	1347	2035	2448
75°	1220	2106	2560
80°	1027	2111	2201
85°	787	1598	1598



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	133.9	3.0
10°-20°	385.2	8.7
20°-30°	585.1	13.3
30°-40°	711.7	16.1
40°-50°	757.8	17.2
50°-60°	721.7	16.4
60°-70°	603.6	13.7
70°-80°	402.4	9.1
80°-90°	111.3	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°	1104.2	25.0
0°-40°	1816.0	41.2
0°-60°	3295.5	74.7
0°-90°	4412.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4412.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1410	1410	1410	1410	1410	
5°	1410	1402	1409	1409	1409	134
15°	1344	1346	1370	1380	1384	379
25°	1223	1239	1275	1297	1308	563
35°	1059	1090	1145	1183	1201	663
45°	871	918	991	1046	1071	674
55°	670	729	818	889	920	599
65°	456	523	624	701	732	451
75°	235	309	405	474	492	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°	1410.5	1410.5	1410.5	1410.5	1410.5
2.5°	1416.4	1406.2	1410.5	1410.5	1404.7
5°	1410.5	1401.8	1409.1	1409.1	1409.1
7.5°	1400.3	1393.1	1404.7	1407.6	1407.6
10°	1384.3	1381.4	1396.0	1400.3	1401.8
12.5°	1366.8	1365.4	1385.8	1391.6	1396.0
15°	1343.5	1346.4	1369.7	1379.9	1384.3
17.5°	1318.7	1324.6	1350.8	1365.4	1369.7
20°	1289.6	1298.3	1328.9	1343.5	1352.3
22.5°	1257.5	1270.7	1302.7	1320.2	1330.4
25°	1222.6	1238.6	1275.0	1296.9	1308.5
27.5°	1184.7	1205.1	1247.3	1272.1	1283.8
30°	1143.9	1167.2	1213.8	1243.0	1257.5
32.5°	1101.6	1129.3	1180.3	1212.4	1229.9
35°	1059.4	1090.0	1145.3	1183.2	1200.7
37.5°	1017.1	1047.7	1108.9	1149.7	1171.6
40°	969.0	1005.5	1071.0	1116.2	1138.1
42.5°	922.4	961.7	1031.7	1081.2	1104.5
45°	871.4	918.0	990.9	1046.3	1071.0
47.5°	824.8	871.4	950.1	1008.4	1036.1
50°	773.8	823.3	906.4	970.5	999.6
52.5°	724.2	775.2	862.6	931.1	960.3
55°	670.3	728.6	817.5	888.9	919.5
57.5°	616.4	679.0	770.8	845.2	875.8
60°	563.9	628.0	724.2	798.5	830.6
62.5°	511.5	575.6	676.1	751.9	782.5
65°	456.1	523.1	623.7	700.9	731.5
67.5°	400.7	470.7	571.2	648.4	677.6
70°	342.4	416.8	517.3	593.1	622.2
72.5°	288.5	362.8	461.9	536.2	563.9
75°	234.6	308.9	405.1	473.6	492.5
77.5°	182.1	256.5	342.4	387.6	392.0
80°	132.6	202.5	272.5	285.6	284.1
82.5°	88.9	151.5	188.0	189.4	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)