

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: P388879

Luminaire Tested: **24CZ2-55VHE-UNV-L950-CD1-SWPD1-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: P388879  
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-L950-CD1-SWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4987.7 lumens  
Efficiency: N/A  
Efficacy: 138.2 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

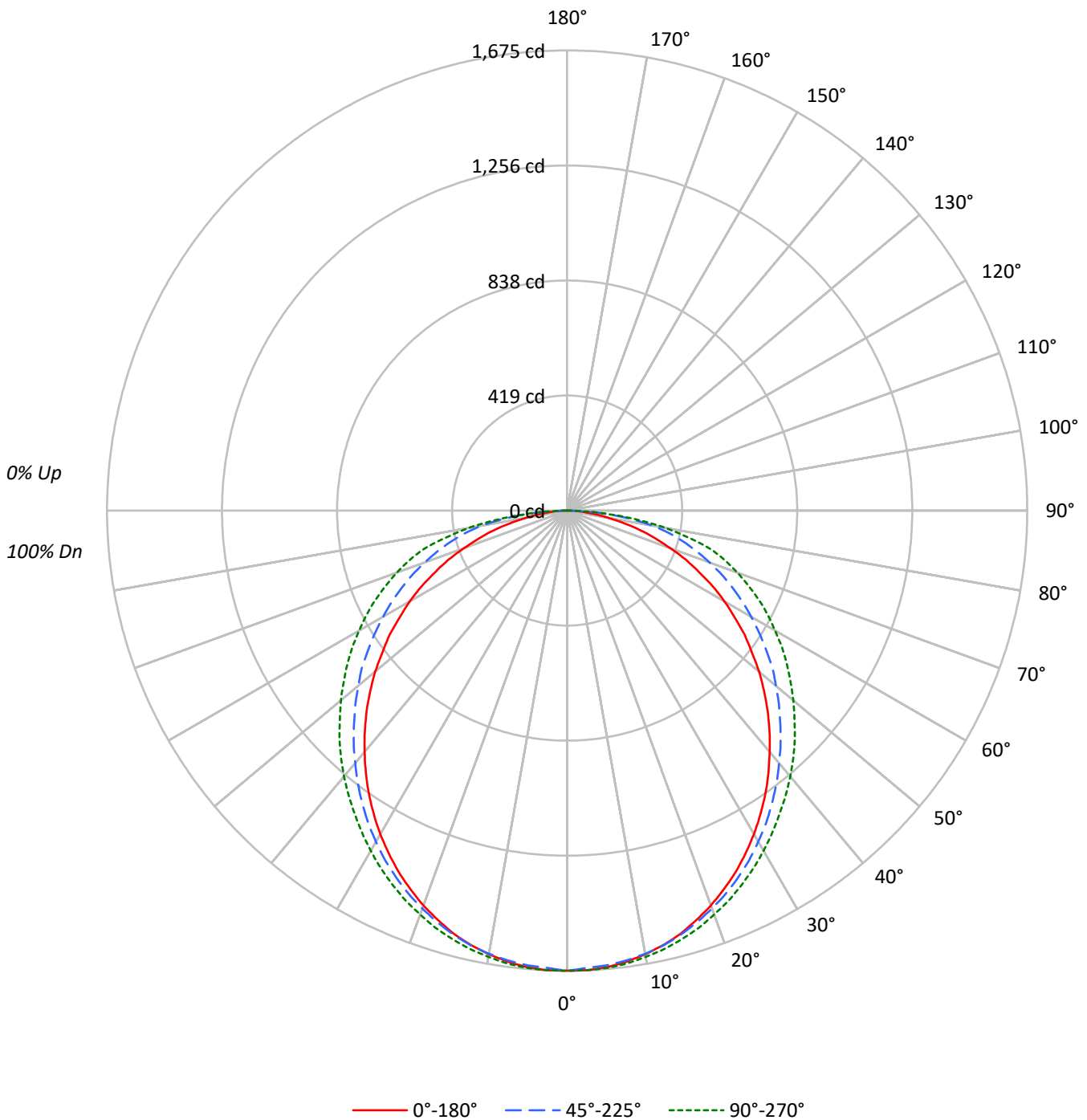
Input Watts (W): 36.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2253	2253	2253
5°	2253	2244	2257
10°	2240	2238	2254
15°	2221	2226	2249
20°	2190	2207	2240
25°	2155	2187	2231
30°	2113	2162	2222
35°	2067	2135	2215
40°	2014	2108	2219
45°	1964	2087	2230
50°	1909	2077	2251
55°	1851	2073	2292
60°	1778	2083	2352
65°	1685	2115	2454
70°	1565	2168	2593
75°	1428	2276	2812
80°	1174	2451	2812
85°	900	2262	2416



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	158.4	3.2
10°-20°	452.2	9.1
20°-30°	680.4	13.6
30°-40°	815.4	16.3
40°-50°	849.7	17.0
50°-60°	790.6	15.9
60°-70°	651.1	13.1
70°-80°	443.5	8.9
80°-90°	146.4	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°	1290.9	25.9
0°-40°	2106.4	42.2
0°-60°	3746.7	75.1
0°-90°	4987.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4987.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1675	1675	1675	1675	1675	
5°	1668	1668	1661	1670	1671	158
15°	1595	1596	1598	1613	1615	449
25°	1452	1458	1473	1498	1503	668
35°	1258	1273	1300	1335	1348	787
45°	1032	1054	1097	1152	1172	796
55°	789	816	884	954	977	703
65°	529	574	664	742	771	525
75°	275	336	438	516	541	290
85°	58	113	146	156	156	72
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1674.6	1674.6	1674.6	1674.6	1674.6
2.5°	1674.6	1674.6	1666.3	1674.6	1674.6
5°	1667.9	1667.9	1661.3	1669.6	1671.3
7.5°	1656.3	1658.0	1651.3	1661.3	1663.0
10°	1639.6	1641.3	1638.0	1648.0	1649.6
12.5°	1619.7	1621.3	1621.3	1633.0	1634.7
15°	1594.7	1596.4	1598.0	1613.0	1614.7
17.5°	1563.1	1568.1	1571.4	1589.7	1593.0
20°	1529.8	1534.8	1541.4	1561.4	1564.7
22.5°	1491.5	1498.2	1509.8	1531.4	1536.4
25°	1451.5	1458.2	1473.2	1498.2	1503.1
27.5°	1406.6	1416.6	1434.9	1461.5	1468.2
30°	1360.0	1370.0	1391.6	1419.9	1429.9
32.5°	1310.1	1323.4	1348.3	1380.0	1390.0
35°	1258.4	1273.4	1300.1	1335.0	1348.3
37.5°	1203.5	1220.2	1251.8	1290.1	1306.7
40°	1146.9	1166.9	1200.2	1245.1	1263.4
42.5°	1090.3	1108.6	1150.2	1198.5	1218.5
45°	1032.1	1053.7	1097.0	1151.9	1171.9
47.5°	972.1	993.8	1045.4	1103.6	1122.0
50°	912.2	933.8	992.1	1053.7	1075.3
52.5°	847.3	875.6	942.2	1003.8	1025.4
55°	789.0	815.7	883.9	953.8	977.1
57.5°	722.4	754.1	829.0	902.2	927.2
60°	660.9	694.1	774.0	849.0	873.9
62.5°	597.6	634.2	719.1	795.7	824.0
65°	529.3	574.3	664.2	742.4	770.7
67.5°	467.8	514.4	609.2	689.2	714.1
70°	397.8	454.4	551.0	630.9	659.2
72.5°	337.9	394.5	496.1	574.3	602.6
75°	274.7	336.3	437.8	516.0	541.0
77.5°	211.4	279.7	381.2	441.1	449.4
80°	151.5	223.1	316.3	351.2	362.9
82.5°	106.5	171.5	233.0	256.4	263.0
85°	58.3	113.2	146.5	156.5	156.5
87.5°	25.0	48.3	58.3	59.9	61.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)