

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: P276645

Luminaire Tested: **24CZ2-55HE-S-UNV-L92765-W2A1-U-4000K**

Issue Date: 3/3/2020

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: P276645  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-55HE-S-UNV-L92765-W2A1-U-4000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4872.5 lumens  
Efficiency: N/A  
Efficacy: 120.2 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

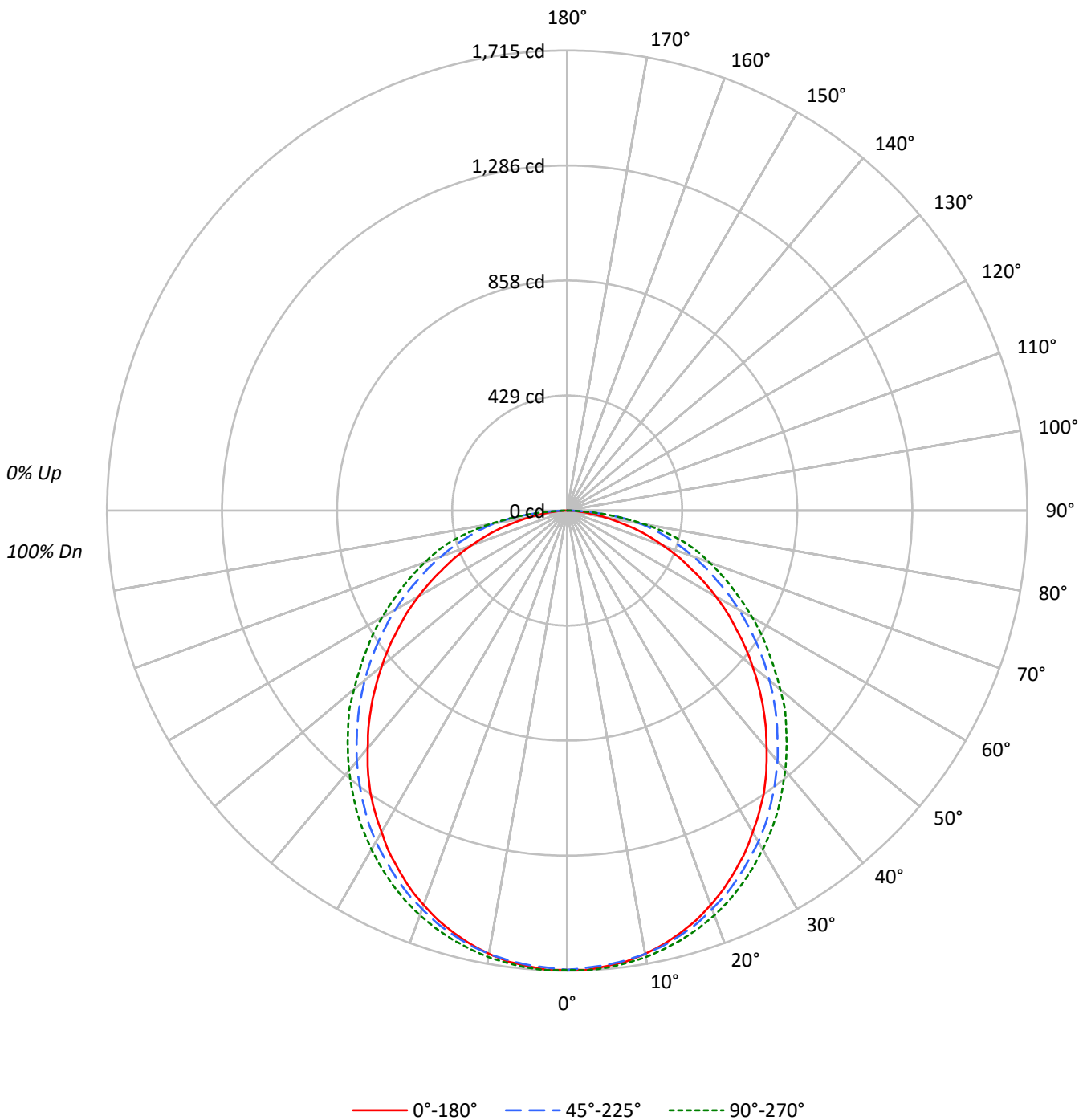
Input Watts (W): 40.548  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2303	2303	2303
5°	2301	2295	2310
10°	2292	2292	2309
15°	2270	2281	2305
20°	2240	2263	2298
25°	2199	2240	2284
30°	2150	2215	2265
35°	2102	2179	2247
40°	2031	2142	2221
45°	1964	2100	2197
50°	1889	2060	2171
55°	1804	2022	2149
60°	1720	1991	2145
65°	1611	1956	2158
70°	1492	1967	2216
75°	1336	2004	2341
80°	1079	2122	2290
85°	812	1863	1815



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	162.1	3.3
10°-20°	463.0	9.5
20°-30°	696.1	14.3
30°-40°	829.1	17.0
40°-50°	848.6	17.4
50°-60°	764.0	15.7
60°-70°	599.9	12.3
70°-80°	389.4	8.0
80°-90°	120.4	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°	1321.2	27.1
0°-40°	2150.3	44.1
0°-60°	3762.8	77.2
0°-90°	4872.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4872.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1712	1712	1712	1712	1712	
5°	1704	1707	1699	1709	1710	162
15°	1630	1634	1638	1651	1654	460
25°	1481	1494	1509	1534	1538	682
35°	1280	1295	1326	1359	1368	798
45°	1032	1057	1104	1145	1155	796
55°	769	803	862	907	916	690
65°	506	545	614	666	678	504
75°	257	306	385	438	450	272
85°	53	98	121	118	118	64
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1711.8	1711.8	1711.8	1711.8	1711.8
2.5°	1713.3	1713.3	1705.6	1713.3	1714.9
5°	1704.0	1707.1	1699.4	1708.7	1710.2
7.5°	1694.7	1694.7	1690.1	1699.4	1700.9
10°	1677.7	1679.3	1677.7	1688.5	1690.1
12.5°	1656.0	1659.1	1660.7	1671.5	1673.1
15°	1629.7	1634.4	1637.5	1651.4	1654.5
17.5°	1600.3	1605.0	1612.7	1628.2	1631.3
20°	1564.7	1570.9	1580.2	1600.3	1605.0
22.5°	1526.0	1532.2	1547.7	1566.3	1574.0
25°	1481.2	1493.5	1509.0	1533.8	1538.4
27.5°	1436.3	1447.1	1467.2	1493.5	1499.7
30°	1383.6	1400.7	1425.4	1451.7	1457.9
32.5°	1332.6	1349.6	1379.0	1406.9	1414.6
35°	1280.0	1295.4	1326.4	1358.9	1368.2
37.5°	1219.6	1239.7	1273.8	1306.3	1315.5
40°	1156.1	1180.9	1219.6	1253.6	1264.5
42.5°	1095.8	1122.1	1160.8	1197.9	1210.3
45°	1032.3	1057.1	1103.5	1145.3	1154.6
47.5°	967.3	995.2	1044.7	1086.5	1102.0
50°	902.3	931.7	984.3	1027.7	1037.0
52.5°	837.3	868.3	924.0	970.4	975.1
55°	769.2	803.3	862.1	907.0	916.2
57.5°	707.3	736.7	800.2	846.6	857.4
60°	639.2	671.7	739.8	783.1	797.1
62.5°	574.2	608.2	679.4	722.8	735.2
65°	506.1	544.8	614.4	665.5	677.9
67.5°	447.3	484.4	558.7	608.2	620.6
70°	379.2	421.0	499.9	551.0	563.4
72.5°	320.4	363.7	442.6	492.2	510.7
75°	256.9	306.4	385.4	438.0	450.4
77.5°	195.0	252.3	332.8	373.0	373.0
80°	139.3	199.7	273.9	292.5	295.6
82.5°	91.3	150.1	202.7	201.2	201.2
85°	52.6	97.5	120.7	117.6	117.6
87.5°	20.1	40.2	43.3	43.3	41.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)