

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: P276591

Luminaire Tested: **24CZ2-50-S-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276591  
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: 24CZ2-50-S-UNV-L82765-W2A1-U-4000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4963.0 lumens  
Efficiency: N/A  
Efficacy: 123.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

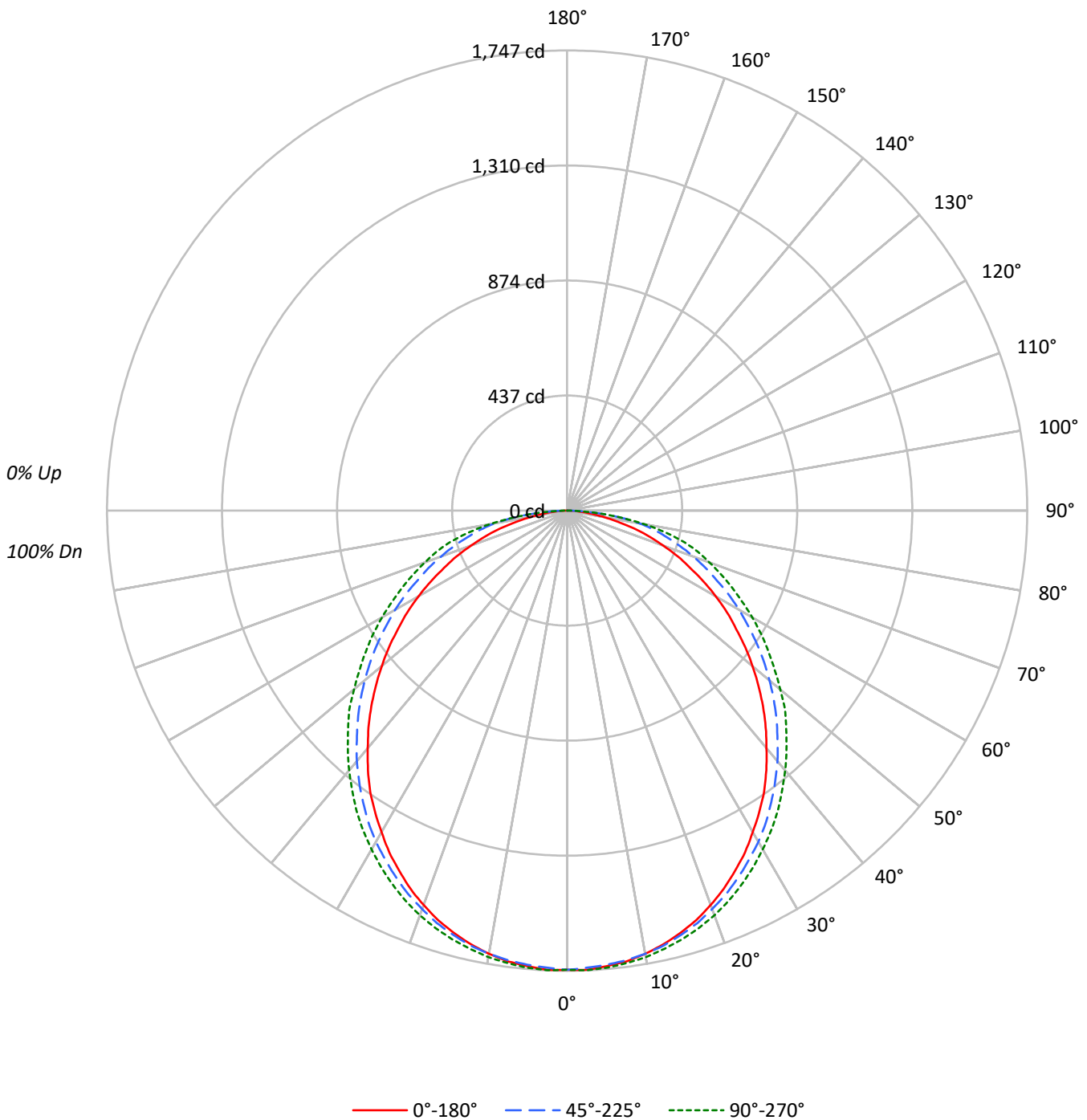
Input Watts (W): 40.176  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					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°	2346	2346	2346
5°	2344	2338	2353
10°	2335	2335	2352
15°	2312	2323	2347
20°	2282	2305	2341
25°	2240	2282	2326
30°	2190	2256	2307
35°	2141	2219	2289
40°	2068	2182	2262
45°	2001	2139	2238
50°	1924	2099	2211
55°	1838	2060	2189
60°	1752	2028	2185
65°	1641	1992	2198
70°	1519	2003	2257
75°	1360	2040	2385
80°	1099	2162	2333
85°	827	1899	1849



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	165.1	3.3
10°-20°	471.6	9.5
20°-30°	709.0	14.3
30°-40°	844.5	17.0
40°-50°	864.3	17.4
50°-60°	778.1	15.7
60°-70°	611.1	12.3
70°-80°	396.6	8.0
80°-90°	122.7	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°	1345.7	27.1
0°-40°	2190.2	44.1
0°-60°	3832.7	77.2
0°-90°	4963.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4963.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1744	1744	1744	1744	1744	
5°	1736	1739	1731	1740	1742	165
15°	1660	1665	1668	1682	1685	468
25°	1509	1521	1537	1562	1567	695
35°	1304	1320	1351	1384	1394	813
45°	1052	1077	1124	1167	1176	811
55°	784	818	878	924	933	702
65°	516	555	626	678	690	513
75°	262	312	392	446	459	277
85°	54	99	123	120	120	65
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1743.5	1743.5	1743.5	1743.5	1743.5
2.5°	1745.1	1745.1	1737.2	1745.1	1746.7
5°	1735.7	1738.8	1730.9	1740.4	1742.0
7.5°	1726.2	1726.2	1721.5	1730.9	1732.5
10°	1708.9	1710.4	1708.9	1719.9	1721.5
12.5°	1686.8	1689.9	1691.5	1702.6	1704.1
15°	1660.0	1664.7	1667.9	1682.1	1685.2
17.5°	1630.0	1634.8	1642.6	1658.4	1661.6
20°	1593.8	1600.1	1609.5	1630.0	1634.8
22.5°	1554.4	1560.7	1576.4	1595.4	1603.2
25°	1508.7	1521.3	1537.0	1562.2	1567.0
27.5°	1462.9	1474.0	1494.5	1521.3	1527.6
30°	1409.3	1426.7	1451.9	1478.7	1485.0
32.5°	1357.3	1374.7	1404.6	1433.0	1440.9
35°	1303.7	1319.5	1351.0	1384.1	1393.6
37.5°	1242.2	1262.7	1297.4	1330.5	1340.0
40°	1177.6	1202.8	1242.2	1276.9	1287.9
42.5°	1116.1	1142.9	1182.3	1220.2	1232.8
45°	1051.5	1076.7	1124.0	1166.6	1176.0
47.5°	985.3	1013.6	1064.1	1106.7	1122.4
50°	919.1	949.0	1002.6	1046.8	1056.2
52.5°	852.9	884.4	941.1	988.4	993.2
55°	783.5	818.2	878.1	923.8	933.3
57.5°	720.4	750.4	815.0	862.3	873.3
60°	651.1	684.2	753.5	797.7	811.9
62.5°	584.9	619.5	692.1	736.2	748.8
65°	515.5	554.9	625.8	677.9	690.5
67.5°	455.6	493.4	569.1	619.5	632.2
70°	386.2	428.8	509.2	561.2	573.8
72.5°	326.3	370.5	450.9	501.3	520.2
75°	261.7	312.1	392.5	446.1	458.7
77.5°	198.6	257.0	338.9	379.9	379.9
80°	141.9	203.4	279.0	297.9	301.1
82.5°	93.0	152.9	206.5	204.9	204.9
85°	53.6	99.3	123.0	119.8	119.8
87.5°	20.5	41.0	44.1	44.1	42.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)