

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: P276381

Luminaire Tested: **24CZ2-45-S-UNV-L83050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276381  
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: 24CZ2-45-S-UNV-L83050-W2A1-U-5000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4775.0 lumens  
Efficiency: N/A  
Efficacy: 130.2 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

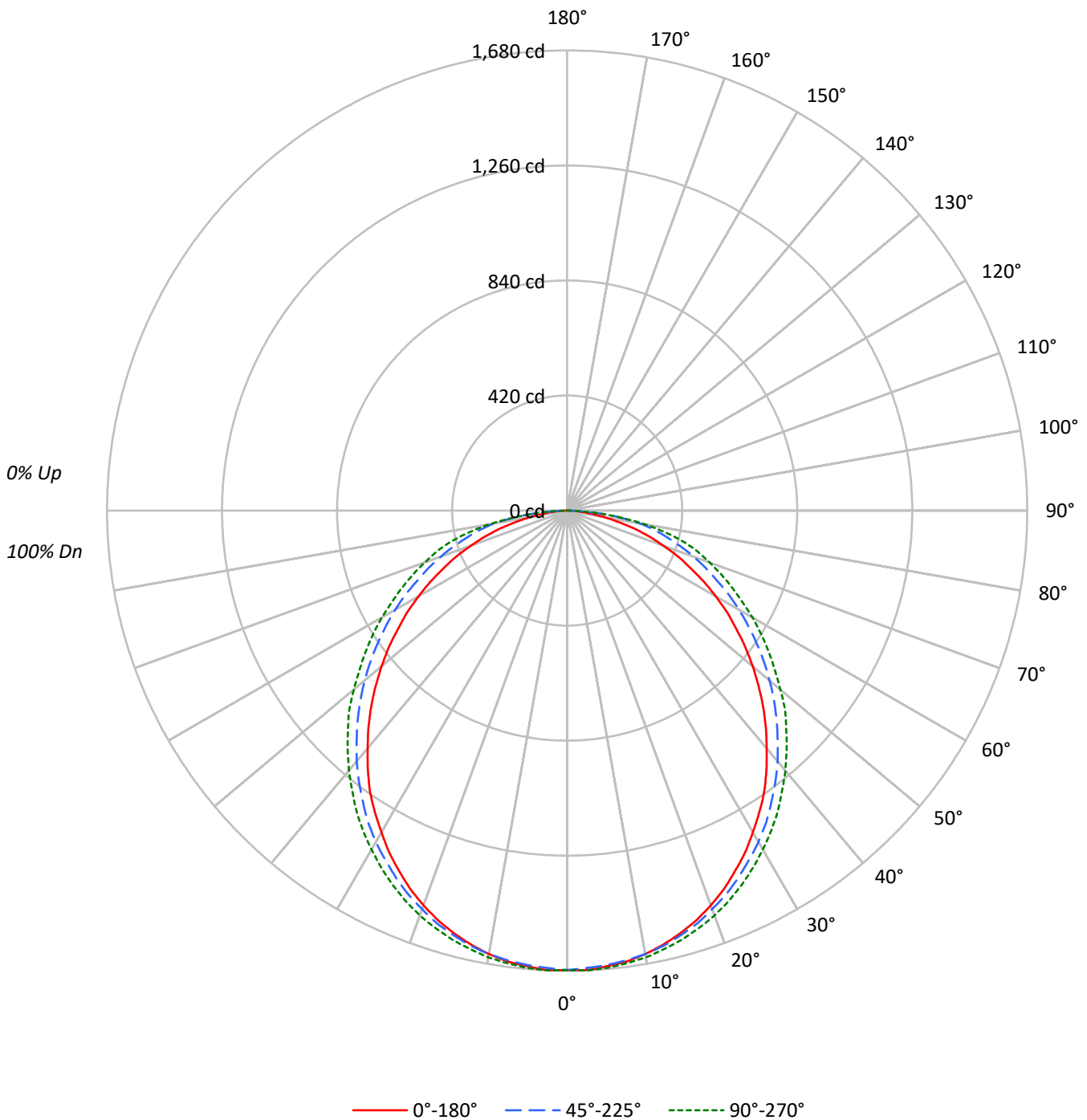
Input Watts (W): 36.681432  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2257	2257	2257
5°	2255	2249	2264
10°	2246	2246	2263
15°	2225	2235	2259
20°	2196	2217	2252
25°	2155	2195	2238
30°	2107	2170	2220
35°	2060	2135	2202
40°	1990	2099	2177
45°	1925	2058	2153
50°	1851	2019	2127
55°	1768	1982	2106
60°	1686	1951	2102
65°	1579	1917	2115
70°	1462	1927	2172
75°	1309	1964	2295
80°	1058	2080	2245
85°	797	1826	1780



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	158.8	3.3
10°-20°	453.8	9.5
20°-30°	682.1	14.3
30°-40°	812.5	17.0
40°-50°	831.6	17.4
50°-60°	748.7	15.7
60°-70°	587.9	12.3
70°-80°	381.6	8.0
80°-90°	118.0	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°	1294.7	27.1
0°-40°	2107.2	44.1
0°-60°	3687.5	77.2
0°-90°	4775.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4775.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1678	1678	1678	1678	1678	
5°	1670	1673	1665	1674	1676	159
15°	1597	1602	1605	1618	1621	450
25°	1452	1464	1479	1503	1508	669
35°	1254	1270	1300	1332	1341	783
45°	1012	1036	1081	1122	1132	780
55°	754	787	845	889	898	676
65°	496	534	602	652	664	494
75°	252	300	378	429	441	266
85°	52	96	118	115	115	62
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1677.5	1677.5	1677.5	1677.5	1677.5
2.5°	1679.0	1679.0	1671.4	1679.0	1680.5
5°	1669.9	1672.9	1665.4	1674.5	1676.0
7.5°	1660.8	1660.8	1656.3	1665.4	1666.9
10°	1644.1	1645.6	1644.1	1654.7	1656.3
12.5°	1622.9	1625.9	1627.4	1638.1	1639.6
15°	1597.1	1601.7	1604.7	1618.3	1621.4
17.5°	1568.3	1572.8	1580.4	1595.6	1598.6
20°	1533.4	1539.5	1548.6	1568.3	1572.8
22.5°	1495.5	1501.5	1516.7	1534.9	1542.5
25°	1451.5	1463.6	1478.8	1503.1	1507.6
27.5°	1407.5	1418.1	1437.8	1463.6	1469.7
30°	1355.9	1372.6	1396.9	1422.7	1428.7
32.5°	1305.9	1322.6	1351.4	1378.7	1386.3
35°	1254.3	1269.5	1299.8	1331.7	1340.8
37.5°	1195.2	1214.9	1248.3	1280.1	1289.2
40°	1133.0	1157.3	1195.2	1228.5	1239.2
42.5°	1073.8	1099.6	1137.5	1173.9	1186.1
45°	1011.7	1035.9	1081.4	1122.4	1131.5
47.5°	947.9	975.2	1023.8	1064.7	1079.9
50°	884.2	913.1	964.6	1007.1	1016.2
52.5°	820.5	850.9	905.5	951.0	955.5
55°	753.8	787.2	844.8	888.8	897.9
57.5°	693.1	722.0	784.1	829.6	840.3
60°	626.4	658.3	725.0	767.5	781.1
62.5°	562.7	596.1	665.8	708.3	720.4
65°	496.0	533.9	602.1	652.2	664.3
67.5°	438.3	474.7	547.5	596.1	608.2
70°	371.6	412.5	489.9	540.0	552.1
72.5°	314.0	356.4	433.8	482.3	500.5
75°	251.8	300.3	377.7	429.2	441.4
77.5°	191.1	247.2	326.1	365.5	365.5
80°	136.5	195.7	268.5	286.7	289.7
82.5°	89.5	147.1	198.7	197.2	197.2
85°	51.6	95.6	118.3	115.3	115.3
87.5°	19.7	39.4	42.5	42.5	41.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)