

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: P276580

Luminaire Tested: **24CZ2-45-S-UNV-L82765-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276580  
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-L82765-W2A1-U-3000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4253.3 lumens  
Efficiency: N/A  
Efficacy: 122.6 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

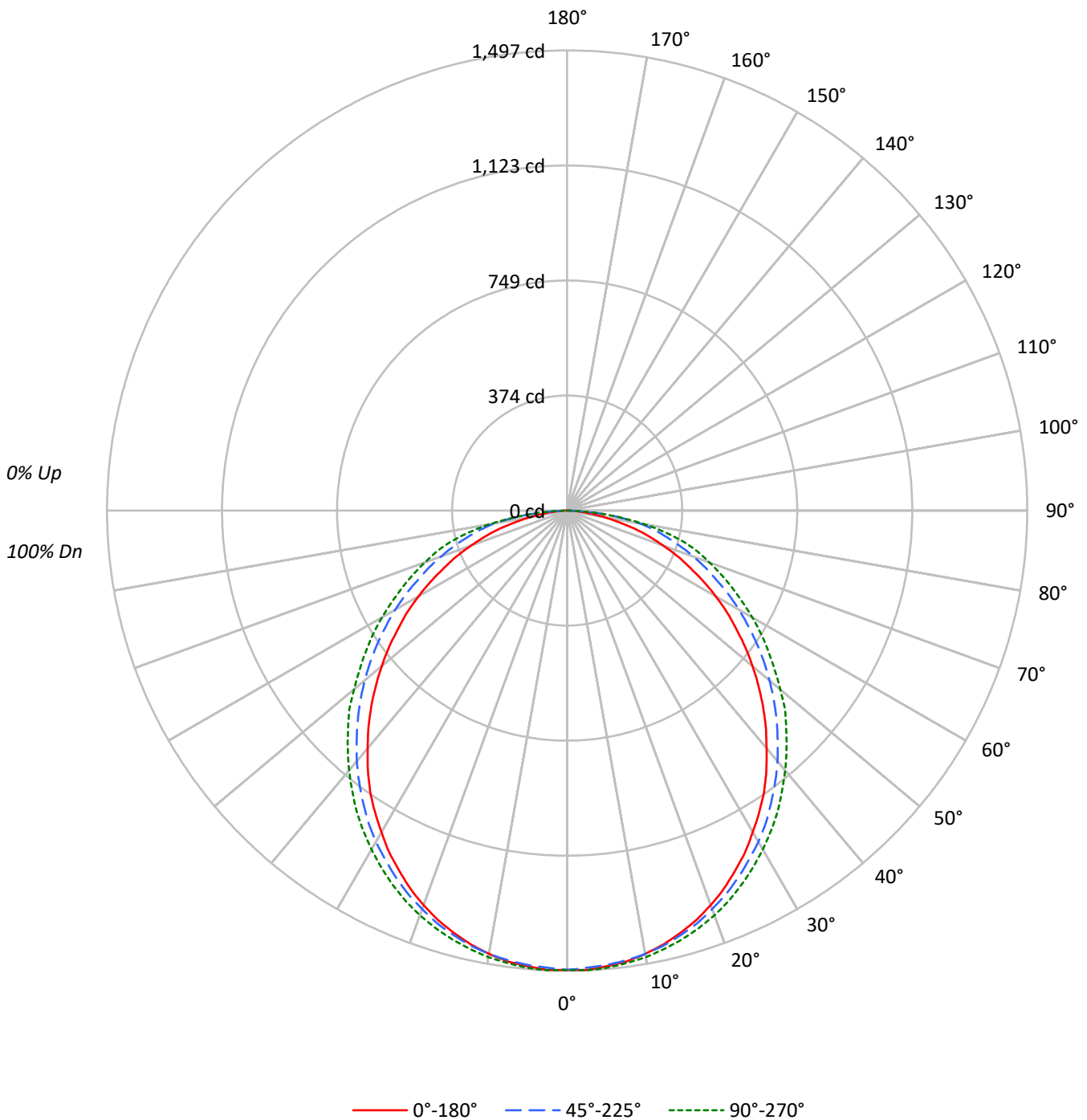
Input Watts (W): 34.689  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2010	2010	2010
5°	2009	2004	2016
10°	2001	2001	2016
15°	1982	1991	2012
20°	1956	1975	2006
25°	1919	1955	1994
30°	1876	1933	1977
35°	1835	1902	1962
40°	1773	1870	1939
45°	1715	1833	1918
50°	1649	1798	1895
55°	1575	1765	1876
60°	1502	1738	1872
65°	1407	1707	1884
70°	1302	1717	1935
75°	1166	1749	2044
80°	942	1853	1999
85°	709	1627	1585



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.5	3.3
10°-20°	404.2	9.5
20°-30°	607.6	14.3
30°-40°	723.7	17.0
40°-50°	740.7	17.4
50°-60°	666.9	15.7
60°-70°	523.7	12.3
70°-80°	339.9	8.0
80°-90°	105.1	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°	1153.3	27.1
0°-40°	1877.0	44.1
0°-60°	3284.6	77.2
0°-90°	4253.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4253.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1494	1494	1494	1494	1494	
5°	1488	1490	1483	1492	1493	141
15°	1423	1427	1429	1442	1444	401
25°	1293	1304	1317	1339	1343	596
35°	1117	1131	1158	1186	1194	697
45°	901	923	963	1000	1008	695
55°	672	701	752	792	800	602
65°	442	476	536	581	592	440
75°	224	268	336	382	393	237
85°	46	85	105	103	103	55
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1494.2	1494.2	1494.2	1494.2	1494.2
2.5°	1495.6	1495.6	1488.8	1495.6	1496.9
5°	1487.5	1490.2	1483.4	1491.5	1492.9
7.5°	1479.4	1479.4	1475.3	1483.4	1484.8
10°	1464.5	1465.8	1464.5	1473.9	1475.3
12.5°	1445.6	1448.3	1449.6	1459.1	1460.4
15°	1422.6	1426.7	1429.4	1441.5	1444.2
17.5°	1396.9	1401.0	1407.7	1421.3	1424.0
20°	1365.9	1371.3	1379.4	1396.9	1401.0
22.5°	1332.1	1337.5	1351.0	1367.2	1374.0
25°	1292.9	1303.7	1317.2	1338.8	1342.9
27.5°	1253.7	1263.2	1280.8	1303.7	1309.1
30°	1207.8	1222.7	1244.3	1267.2	1272.6
32.5°	1163.2	1178.1	1203.7	1228.1	1234.8
35°	1117.3	1130.8	1157.8	1186.2	1194.3
37.5°	1064.6	1082.2	1111.9	1140.2	1148.4
40°	1009.2	1030.8	1064.6	1094.3	1103.8
42.5°	956.5	979.5	1013.3	1045.7	1056.5
45°	901.1	922.7	963.3	999.7	1007.9
47.5°	844.4	868.7	911.9	948.4	961.9
50°	787.6	813.3	859.2	897.1	905.2
52.5°	730.9	757.9	806.6	847.1	851.1
55°	671.5	701.2	752.5	791.7	799.8
57.5°	617.4	643.1	698.5	739.0	748.5
60°	558.0	586.3	645.8	683.6	695.8
62.5°	501.2	530.9	593.1	630.9	641.7
65°	441.8	475.6	536.3	580.9	591.7
67.5°	390.4	422.9	487.7	530.9	541.8
70°	331.0	367.5	436.4	481.0	491.8
72.5°	279.7	317.5	386.4	429.6	445.8
75°	224.3	267.5	336.4	382.3	393.1
77.5°	170.2	220.2	290.5	325.6	325.6
80°	121.6	174.3	239.1	255.3	258.0
82.5°	79.7	131.0	177.0	175.6	175.6
85°	45.9	85.1	105.4	102.7	102.7
87.5°	17.6	35.1	37.8	37.8	36.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)