

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: P276711

Luminaire Tested: **24CZ2-40-S-UNV-L92765-W2A1-U-5500K**

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: P276711
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: 24CZ2-40-S-UNV-L92765-W2A1-U-5500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3777.2 lumens
Efficiency: N/A
Efficacy: 120.9 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

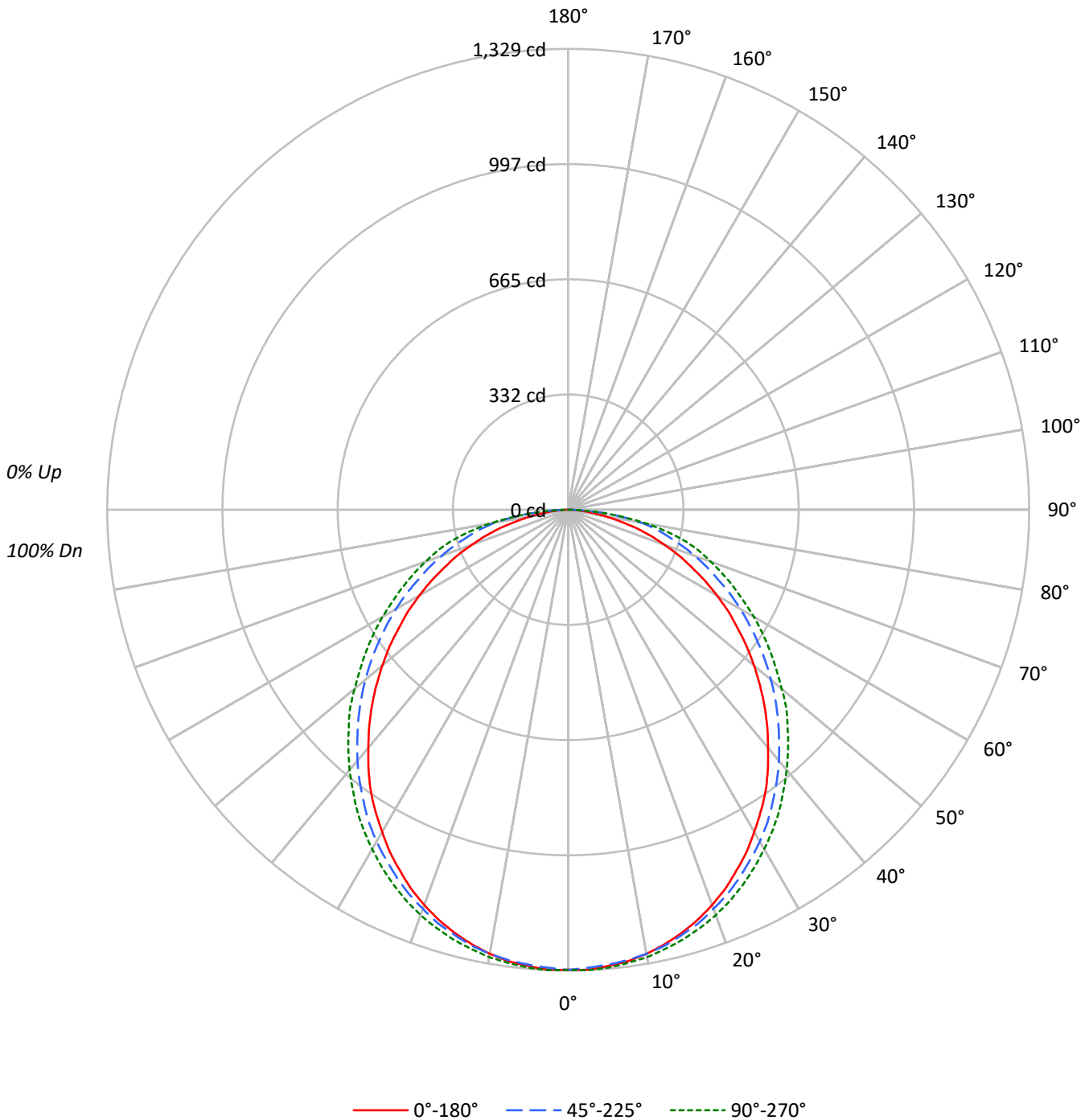
Input Watts (W): 31.248
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1785	1785	1785
5°	1784	1779	1791
10°	1777	1777	1790
15°	1760	1768	1787
20°	1737	1754	1781
25°	1705	1737	1771
30°	1666	1717	1756
35°	1630	1689	1742
40°	1574	1661	1722
45°	1523	1628	1703
50°	1464	1597	1683
55°	1399	1568	1666
60°	1333	1543	1663
65°	1249	1516	1673
70°	1156	1524	1718
75°	1036	1553	1815
80°	837	1646	1776
85°	630	1445	1408



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.6	3.3
10°-20°	359.0	9.5
20°-30°	539.6	14.3
30°-40°	642.7	17.0
40°-50°	657.8	17.4
50°-60°	592.2	15.7
60°-70°	465.1	12.3
70°-80°	301.8	8.0
80°-90°	93.4	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°	1024.2	27.1
0°-40°	1666.9	44.1
0°-60°	2916.9	77.2
0°-90°	3777.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3777.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1327	1327	1327	1327	1327	
5°	1321	1323	1317	1324	1326	126
15°	1263	1267	1269	1280	1283	356
25°	1148	1158	1170	1189	1193	529
35°	992	1004	1028	1053	1061	619
45°	800	819	855	888	895	617
55°	596	623	668	703	710	535
65°	392	422	476	516	526	391
75°	199	238	299	340	349	211
85°	41	76	94	91	91	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1326.9	1326.9	1326.9	1326.9	1326.9
2.5°	1328.1	1328.1	1322.1	1328.1	1329.3
5°	1320.9	1323.3	1317.3	1324.5	1325.7
7.5°	1313.8	1313.8	1310.2	1317.3	1318.5
10°	1300.6	1301.8	1300.6	1309.0	1310.2
12.5°	1283.8	1286.2	1287.4	1295.8	1297.0
15°	1263.4	1267.0	1269.4	1280.2	1282.6
17.5°	1240.6	1244.2	1250.2	1262.2	1264.6
20°	1213.0	1217.8	1225.0	1240.6	1244.2
22.5°	1183.0	1187.8	1199.8	1214.2	1220.2
25°	1148.2	1157.8	1169.8	1189.0	1192.6
27.5°	1113.4	1121.8	1137.4	1157.8	1162.6
30°	1072.6	1085.8	1105.0	1125.4	1130.2
32.5°	1033.0	1046.2	1069.0	1090.6	1096.6
35°	992.2	1004.2	1028.2	1053.4	1060.6
37.5°	945.4	961.0	987.4	1012.6	1019.8
40°	896.2	915.4	945.4	971.8	980.2
42.5°	849.4	869.8	899.8	928.6	938.2
45°	800.2	819.4	855.4	887.8	895.0
47.5°	749.9	771.5	809.8	842.2	854.2
50°	699.5	722.3	763.1	796.6	803.8
52.5°	649.1	673.1	716.3	752.3	755.9
55°	596.3	622.7	668.3	703.1	710.3
57.5°	548.3	571.1	620.3	656.3	664.7
60°	495.5	520.7	573.5	607.1	617.9
62.5°	445.1	471.5	526.7	560.3	569.9
65°	392.3	422.3	476.3	515.9	525.5
67.5°	346.7	375.5	433.1	471.5	481.1
70°	293.9	326.3	387.5	427.1	436.7
72.5°	248.4	281.9	343.1	381.5	395.9
75°	199.2	237.6	298.7	339.5	349.1
77.5°	151.2	195.6	258.0	289.1	289.1
80°	108.0	154.8	212.4	226.8	229.2
82.5°	70.8	116.4	157.2	156.0	156.0
85°	40.8	75.6	93.6	91.2	91.2
87.5°	15.6	31.2	33.6	33.6	32.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)