

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: P276621

Luminaire Tested: **24CZ2-40HE-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: P276621
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: 24CZ2-40HE-S-UNV-L92765-W2A1-U-5500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 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: 3800.0 lumens
Efficiency: N/A
Efficacy: 130.5 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

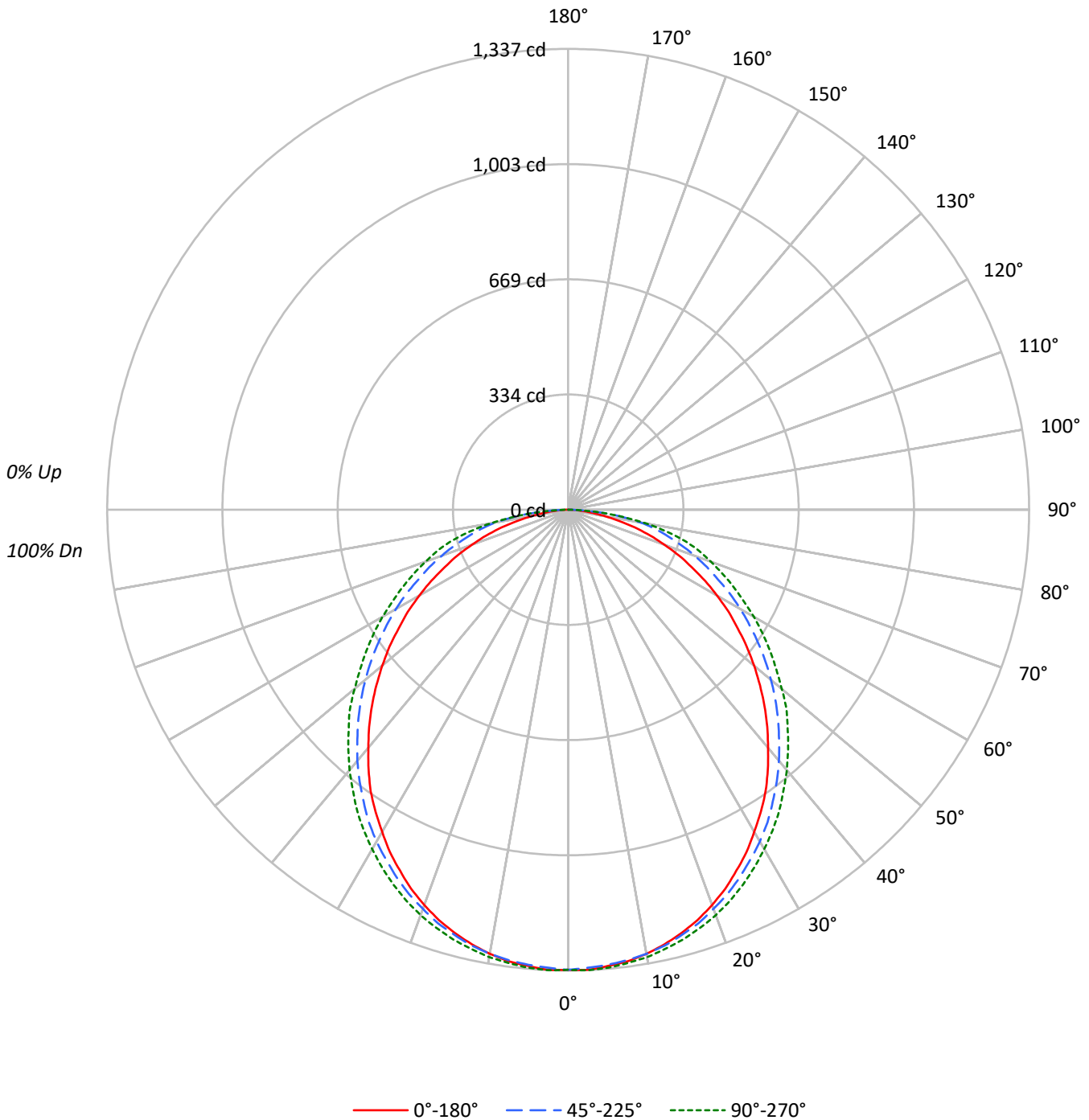
Input Watts (W): 29.109
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1796	1796	1796
5°	1795	1790	1801
10°	1788	1788	1801
15°	1770	1779	1797
20°	1747	1765	1792
25°	1715	1747	1781
30°	1677	1727	1766
35°	1640	1699	1753
40°	1584	1671	1732
45°	1532	1638	1713
50°	1473	1607	1693
55°	1407	1577	1676
60°	1341	1553	1673
65°	1257	1526	1683
70°	1163	1534	1729
75°	1042	1563	1826
80°	841	1655	1786
85°	633	1453	1416



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.4	3.3
10°-20°	361.1	9.5
20°-30°	542.9	14.3
30°-40°	646.6	17.0
40°-50°	661.8	17.4
50°-60°	595.8	15.7
60°-70°	467.9	12.3
70°-80°	303.7	8.0
80°-90°	93.9	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°	1030.4	27.1
0°-40°	1677.0	44.1
0°-60°	2934.5	77.2
0°-90°	3800.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3800.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1335	1335	1335	1335	1335	
5°	1329	1331	1325	1333	1334	126
15°	1271	1275	1277	1288	1290	358
25°	1155	1165	1177	1196	1200	532
35°	998	1010	1034	1060	1067	623
45°	805	824	861	893	900	621
55°	600	626	672	707	715	538
65°	395	425	479	519	529	393
75°	200	239	301	342	351	212
85°	41	76	94	92	92	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1335.0	1335.0	1335.0	1335.0	1335.0
2.5°	1336.2	1336.2	1330.2	1336.2	1337.4
5°	1328.9	1331.4	1325.3	1332.6	1333.8
7.5°	1321.7	1321.7	1318.1	1325.3	1326.5
10°	1308.4	1309.6	1308.4	1316.9	1318.1
12.5°	1291.5	1293.9	1295.1	1303.6	1304.8
15°	1271.0	1274.6	1277.0	1287.9	1290.3
17.5°	1248.1	1251.7	1257.7	1269.8	1272.2
20°	1220.3	1225.1	1232.4	1248.1	1251.7
22.5°	1190.1	1195.0	1207.0	1221.5	1227.6
25°	1155.1	1164.8	1176.9	1196.2	1199.8
27.5°	1120.1	1128.6	1144.3	1164.8	1169.6
30°	1079.1	1092.4	1111.7	1132.2	1137.0
32.5°	1039.3	1052.5	1075.5	1097.2	1103.2
35°	998.2	1010.3	1034.4	1059.8	1067.0
37.5°	951.1	966.8	993.4	1018.7	1026.0
40°	901.7	921.0	951.1	977.7	986.1
42.5°	854.6	875.1	905.3	934.2	943.9
45°	805.1	824.4	860.6	893.2	900.4
47.5°	754.4	776.1	814.7	847.3	859.4
50°	703.7	726.6	767.7	801.5	808.7
52.5°	653.0	677.1	720.6	756.8	760.4
55°	599.9	626.5	672.3	707.3	714.6
57.5°	551.6	574.5	624.0	660.2	668.7
60°	498.5	523.9	577.0	610.8	621.6
62.5°	447.8	474.4	529.9	563.7	573.3
65°	394.7	424.9	479.2	519.0	528.7
67.5°	348.8	377.8	435.7	474.4	484.0
70°	295.7	328.3	389.9	429.7	439.4
72.5°	249.9	283.7	345.2	383.8	398.3
75°	200.4	239.0	300.6	341.6	351.2
77.5°	152.1	196.7	259.5	290.9	290.9
80°	108.6	155.7	213.6	228.1	230.5
82.5°	71.2	117.1	158.1	156.9	156.9
85°	41.0	76.0	94.1	91.7	91.7
87.5°	15.7	31.4	33.8	33.8	32.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)