

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: P276713

Luminaire Tested: **24CZ2-40-S-UNV-L92765-W2A1-U-6500K**

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: P276713
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-6500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 6500K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3818.9 lumens
Efficiency: N/A
Efficacy: 120.1 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

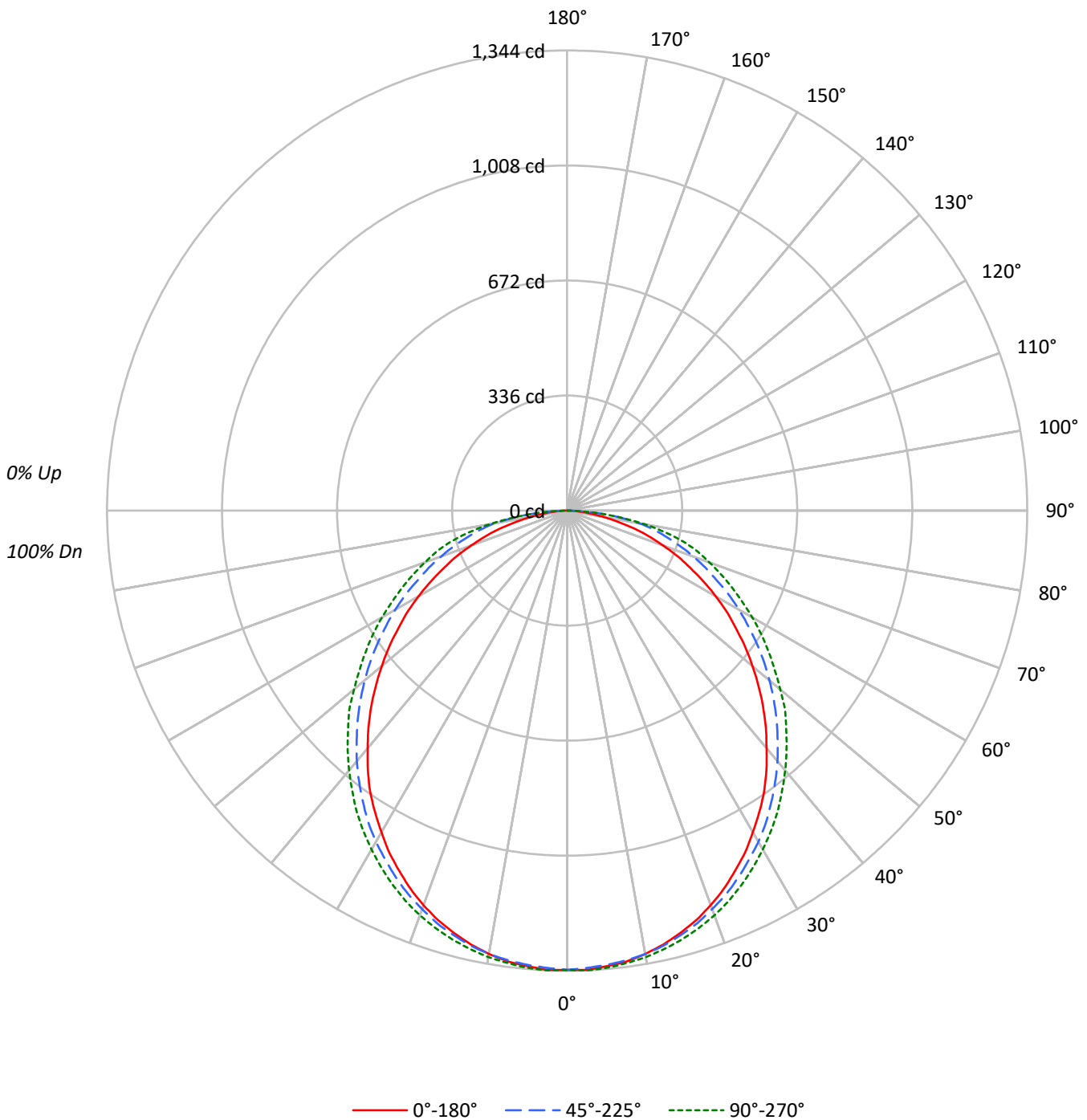
Input Watts (W): 31.806
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1805	1805	1805
5°	1804	1799	1810
10°	1796	1796	1810
15°	1779	1788	1806
20°	1756	1773	1801
25°	1723	1756	1790
30°	1685	1736	1775
35°	1648	1708	1761
40°	1591	1679	1741
45°	1540	1646	1722
50°	1480	1615	1701
55°	1414	1585	1685
60°	1348	1560	1681
65°	1263	1533	1691
70°	1169	1541	1737
75°	1047	1570	1835
80°	846	1664	1795
85°	636	1460	1423



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.0	3.3
10°-20°	362.9	9.5
20°-30°	545.5	14.3
30°-40°	649.8	17.0
40°-50°	665.1	17.4
50°-60°	598.8	15.7
60°-70°	470.2	12.3
70°-80°	305.2	8.0
80°-90°	94.4	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°	1035.5	27.1
0°-40°	1685.3	44.1
0°-60°	2949.1	77.2
0°-90°	3818.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3818.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1342	1342	1342	1342	1342	
5°	1336	1338	1332	1339	1340	127
15°	1277	1281	1283	1294	1297	360
25°	1161	1171	1183	1202	1206	535
35°	1003	1015	1040	1065	1072	626
45°	809	828	865	898	905	624
55°	603	630	676	711	718	541
65°	397	427	482	522	531	395
75°	201	240	302	343	353	213
85°	41	76	95	92	92	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1341.6	1341.6	1341.6	1341.6	1341.6
2.5°	1342.8	1342.8	1336.8	1342.8	1344.0
5°	1335.5	1338.0	1331.9	1339.2	1340.4
7.5°	1328.3	1328.3	1324.6	1331.9	1333.1
10°	1314.9	1316.1	1314.9	1323.4	1324.6
12.5°	1297.9	1300.4	1301.6	1310.1	1311.3
15°	1277.3	1281.0	1283.4	1294.3	1296.7
17.5°	1254.3	1257.9	1264.0	1276.1	1278.5
20°	1226.4	1231.2	1238.5	1254.3	1257.9
22.5°	1196.0	1200.9	1213.0	1227.6	1233.7
25°	1160.9	1170.6	1182.7	1202.1	1205.8
27.5°	1125.7	1134.2	1150.0	1170.6	1175.4
30°	1084.5	1097.8	1117.2	1137.8	1142.7
32.5°	1044.4	1057.8	1080.8	1102.6	1108.7
35°	1003.2	1015.3	1039.6	1065.0	1072.3
37.5°	955.9	971.6	998.3	1023.8	1031.1
40°	906.1	925.5	955.9	982.6	991.0
42.5°	858.8	879.4	909.8	938.9	948.6
45°	809.1	828.5	864.9	897.6	904.9
47.5°	758.1	780.0	818.8	851.5	863.7
50°	707.2	730.2	771.5	805.5	812.7
52.5°	656.3	680.5	724.2	760.6	764.2
55°	602.9	629.6	675.7	710.8	718.1
57.5°	554.4	577.4	627.1	663.5	672.0
60°	501.0	526.5	579.8	613.8	624.7
62.5°	450.0	476.7	532.5	566.5	576.2
65°	396.7	427.0	481.6	521.6	531.3
67.5°	350.6	379.7	437.9	476.7	486.4
70°	297.2	329.9	391.8	431.8	441.5
72.5°	251.1	285.1	346.9	385.7	400.3
75°	201.4	240.2	302.0	343.3	353.0
77.5°	152.8	197.7	260.8	292.3	292.3
80°	109.2	156.5	214.7	229.3	231.7
82.5°	71.6	117.7	158.9	157.7	157.7
85°	41.2	76.4	94.6	92.2	92.2
87.5°	15.8	31.5	34.0	34.0	32.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)