

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: P276451

Luminaire Tested: **24CZ2-40-S-UNV-L93050-W2A1-U-5000K**

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: P276451
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-L93050-W2A1-U-5000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3758.1 lumens
Efficiency: N/A
Efficacy: 118.6 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

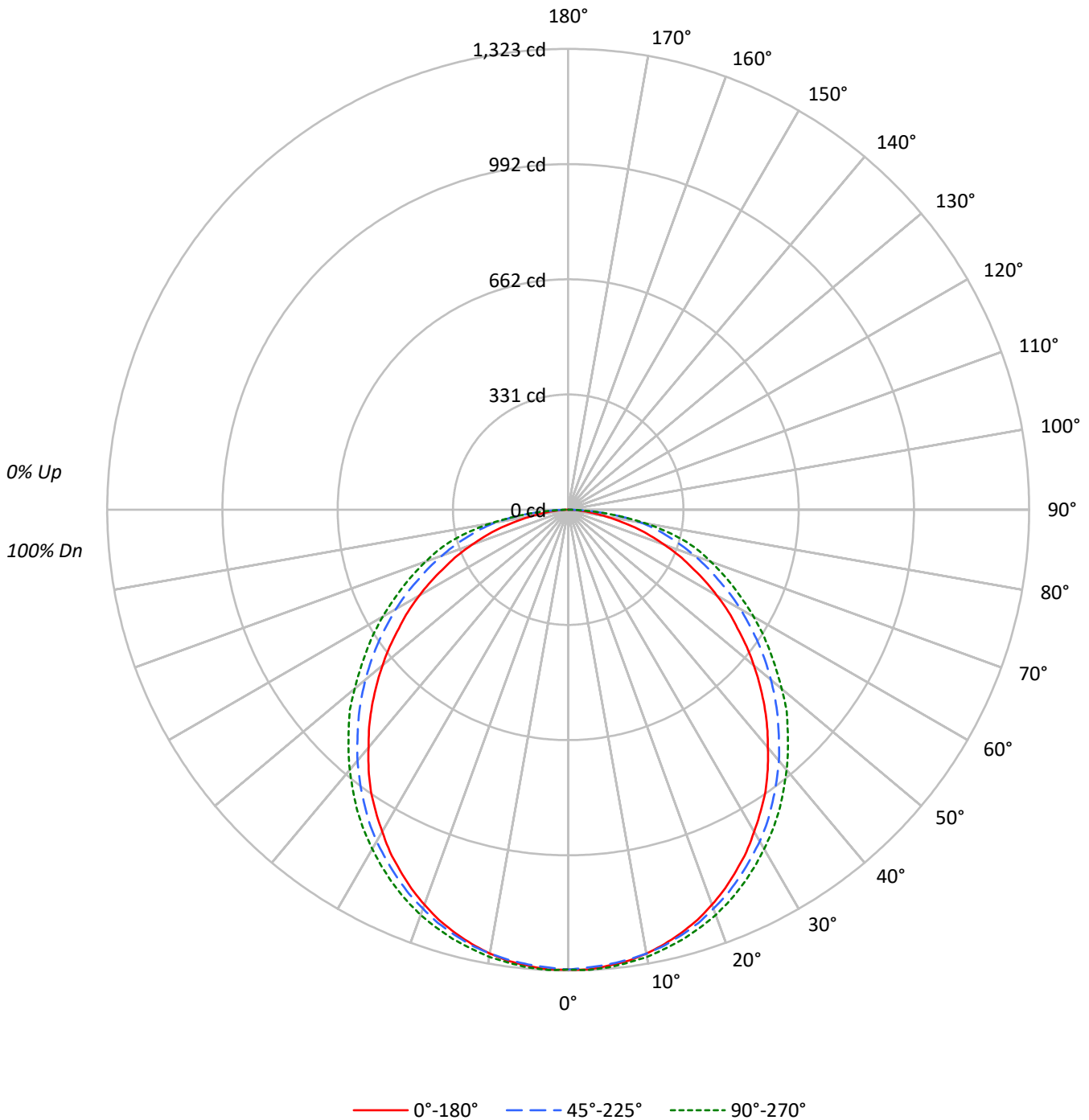
Input Watts (W): 31.688262
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1776	1776	1776
5°	1775	1770	1782
10°	1768	1768	1781
15°	1751	1759	1778
20°	1728	1745	1772
25°	1696	1728	1762
30°	1658	1708	1747
35°	1622	1680	1733
40°	1566	1652	1713
45°	1515	1619	1694
50°	1457	1589	1674
55°	1392	1560	1658
60°	1327	1535	1654
65°	1243	1509	1664
70°	1151	1517	1709
75°	1030	1545	1806
80°	832	1637	1767
85°	627	1437	1400



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.0	3.3
10°-20°	357.1	9.5
20°-30°	536.9	14.3
30°-40°	639.5	17.0
40°-50°	654.5	17.4
50°-60°	589.2	15.7
60°-70°	462.7	12.3
70°-80°	300.3	8.0
80°-90°	92.9	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°	1019.0	27.1
0°-40°	1658.5	44.1
0°-60°	2902.2	77.2
0°-90°	3758.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3758.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1320	1320	1320	1320	1320	
5°	1314	1317	1311	1318	1319	125
15°	1257	1261	1263	1274	1276	354
25°	1142	1152	1164	1183	1187	526
35°	987	999	1023	1048	1055	616
45°	796	815	851	883	890	614
55°	593	620	665	700	707	532
65°	390	420	474	513	523	389
75°	198	236	297	338	347	210
85°	41	75	93	91	91	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1320.3	1320.3	1320.3	1320.3	1320.3
2.5°	1321.4	1321.4	1315.5	1321.4	1322.6
5°	1314.3	1316.7	1310.7	1317.9	1319.1
7.5°	1307.1	1307.1	1303.5	1310.7	1311.9
10°	1294.0	1295.2	1294.0	1302.3	1303.5
12.5°	1277.3	1279.7	1280.9	1289.2	1290.4
15°	1257.0	1260.6	1263.0	1273.7	1276.1
17.5°	1234.3	1237.9	1243.9	1255.8	1258.2
20°	1206.9	1211.6	1218.8	1234.3	1237.9
22.5°	1177.0	1181.8	1193.7	1208.0	1214.0
25°	1142.4	1151.9	1163.9	1183.0	1186.6
27.5°	1107.8	1116.1	1131.6	1151.9	1156.7
30°	1067.2	1080.3	1099.4	1119.7	1124.5
32.5°	1027.8	1040.9	1063.6	1085.1	1091.1
35°	987.2	999.1	1023.0	1048.1	1055.2
37.5°	940.7	956.2	982.4	1007.5	1014.7
40°	891.7	910.8	940.7	966.9	975.3
42.5°	845.2	865.4	895.3	923.9	933.5
45°	796.2	815.3	851.1	883.4	890.5
47.5°	746.1	767.6	805.8	838.0	849.9
50°	695.9	718.6	759.2	792.6	799.8
52.5°	645.8	669.7	712.7	748.5	752.0
55°	593.3	619.5	664.9	699.5	706.7
57.5°	545.5	568.2	617.2	653.0	661.3
60°	493.0	518.1	570.6	604.0	614.8
62.5°	442.9	469.1	524.0	557.5	567.0
65°	390.3	420.2	473.9	513.3	522.8
67.5°	345.0	373.6	430.9	469.1	478.7
70°	292.5	324.7	385.6	425.0	434.5
72.5°	247.1	280.5	341.4	379.6	393.9
75°	198.2	236.4	297.2	337.8	347.4
77.5°	150.4	194.6	256.6	287.7	287.7
80°	107.4	154.0	211.3	225.6	228.0
82.5°	70.4	115.8	156.4	155.2	155.2
85°	40.6	75.2	93.1	90.7	90.7
87.5°	15.5	31.0	33.4	33.4	32.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)