

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: P276707

Luminaire Tested: **24CZ2-40-S-UNV-L92765-W2A1-U-3500K**

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: P276707
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-3500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3442.2 lumens
Efficiency: N/A
Efficacy: 112.8 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

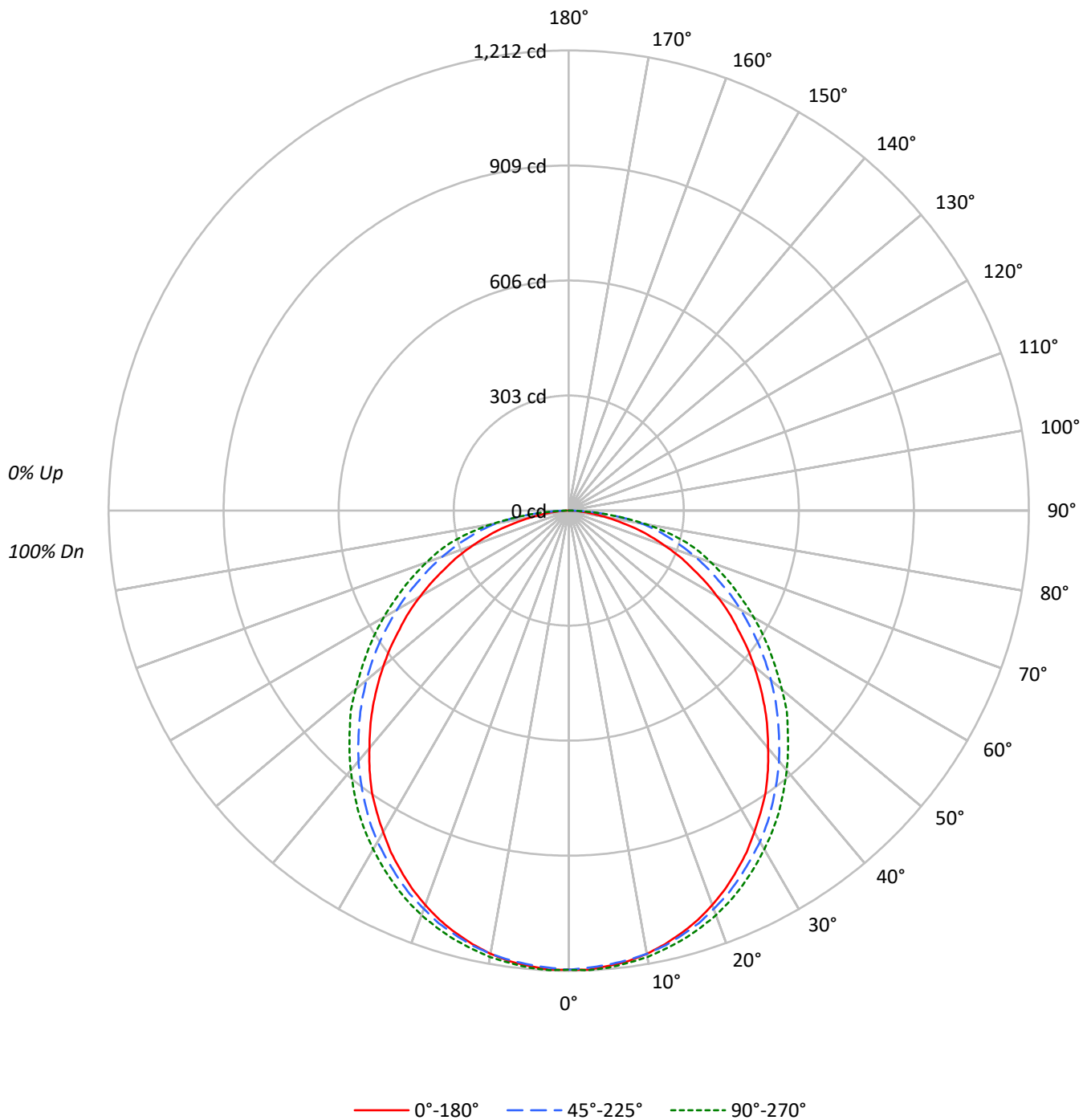
Input Watts (W): 30.504
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	99	95	106	101	97	93	97	93	90		93	90	88		83
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		63	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	70	56	47	40	68	55	47	40	53	46	40		52	45	40		37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1627	1627	1627
5°	1626	1621	1632
10°	1619	1619	1631
15°	1604	1611	1628
20°	1583	1598	1623
25°	1553	1583	1613
30°	1519	1565	1600
35°	1485	1539	1588
40°	1434	1513	1569
45°	1388	1483	1552
50°	1334	1456	1533
55°	1275	1429	1518
60°	1215	1406	1515
65°	1138	1382	1525
70°	1054	1389	1566
75°	944	1415	1654
80°	762	1499	1618
85°	574	1317	1283



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.5	3.3
10°-20°	327.1	9.5
20°-30°	491.7	14.3
30°-40°	585.7	17.0
40°-50°	599.5	17.4
50°-60°	539.7	15.7
60°-70°	423.8	12.3
70°-80°	275.1	8.0
80°-90°	85.1	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°	933.3	27.1
0°-40°	1519.1	44.1
0°-60°	2658.2	77.2
0°-90°	3442.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3442.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1209	1209	1209	1209	1209	
5°	1204	1206	1200	1207	1208	114
15°	1151	1155	1157	1167	1169	325
25°	1046	1055	1066	1084	1087	482
35°	904	915	937	960	966	564
45°	729	747	780	809	816	562
55°	543	568	609	641	647	487
65°	358	385	434	470	479	356
75°	182	216	272	309	318	192
85°	37	69	85	83	83	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1209.3	1209.3	1209.3	1209.3	1209.3
2.5°	1210.4	1210.4	1204.9	1210.4	1211.5
5°	1203.8	1206.0	1200.5	1207.1	1208.2
7.5°	1197.2	1197.2	1194.0	1200.5	1201.6
10°	1185.2	1186.3	1185.2	1192.9	1194.0
12.5°	1169.9	1172.1	1173.2	1180.8	1181.9
15°	1151.3	1154.6	1156.8	1166.6	1168.8
17.5°	1130.5	1133.8	1139.3	1150.2	1152.4
20°	1105.4	1109.8	1116.3	1130.5	1133.8
22.5°	1078.1	1082.4	1093.4	1106.5	1112.0
25°	1046.4	1055.1	1066.0	1083.5	1086.8
27.5°	1014.6	1022.3	1036.5	1055.1	1059.5
30°	977.5	989.5	1007.0	1025.6	1030.0
32.5°	941.4	953.4	974.2	993.9	999.3
35°	904.2	915.2	937.0	960.0	966.5
37.5°	861.6	875.8	899.8	922.8	929.4
40°	816.7	834.2	861.6	885.6	893.3
42.5°	774.1	792.7	820.0	846.3	855.0
45°	729.3	746.8	779.6	809.1	815.7
47.5°	683.4	703.0	738.0	767.5	778.5
50°	637.4	658.2	695.4	726.0	732.6
52.5°	591.5	613.4	652.7	685.5	688.8
55°	543.4	567.5	609.0	640.7	647.3
57.5°	499.7	520.4	565.3	598.1	605.7
60°	451.6	474.5	522.6	553.2	563.1
62.5°	405.6	429.7	480.0	510.6	519.4
65°	357.5	384.9	434.1	470.1	478.9
67.5°	316.0	342.2	394.7	429.7	438.4
70°	267.9	297.4	353.2	389.2	398.0
72.5°	226.3	256.9	312.7	347.7	360.8
75°	181.5	216.5	272.2	309.4	318.2
77.5°	137.8	178.2	235.1	263.5	263.5
80°	98.4	141.0	193.5	206.6	208.8
82.5°	64.5	106.1	143.2	142.1	142.1
85°	37.2	68.9	85.3	83.1	83.1
87.5°	14.2	28.4	30.6	30.6	29.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)