

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: P276714

Luminaire Tested: **24CZ2-45-S-UNV-L92765-W2A1-U-2700K**

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: P276714
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: 24CZ2-45-S-UNV-L92765-W2A1-U-2700K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3529.7 lumens
Efficiency: N/A
Efficacy: 101.2 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

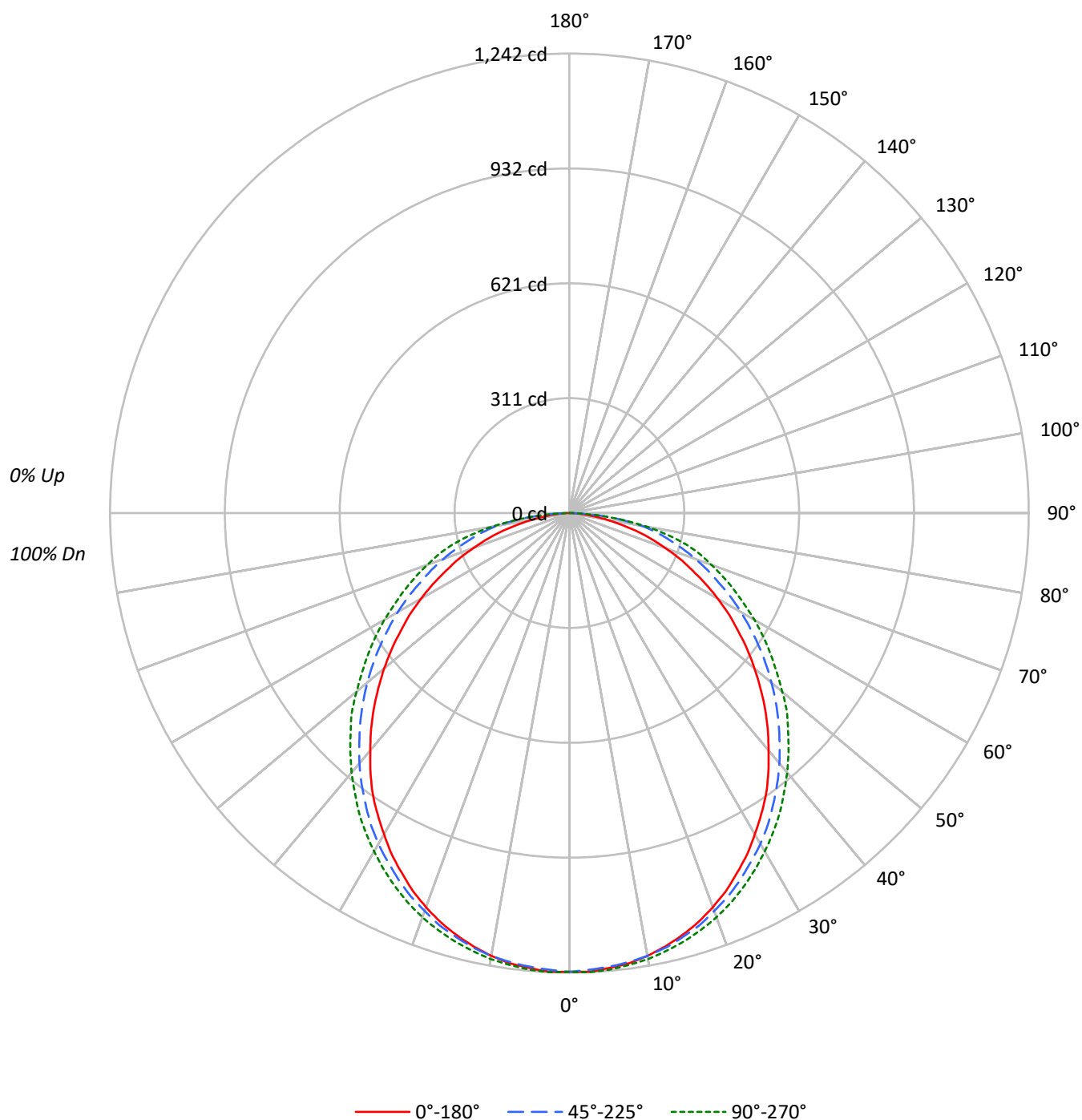
Input Watts (W): 34.875
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1668	1668	1668
5°	1667	1663	1673
10°	1660	1660	1673
15°	1645	1652	1669
20°	1623	1639	1665
25°	1593	1623	1654
30°	1557	1604	1641
35°	1523	1578	1628
40°	1471	1552	1609
45°	1423	1521	1592
50°	1368	1493	1572
55°	1307	1465	1557
60°	1246	1442	1554
65°	1167	1417	1564
70°	1081	1424	1605
75°	967	1451	1696
80°	782	1537	1659
85°	588	1351	1315



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.4	3.3
10°-20°	335.4	9.5
20°-30°	504.2	14.3
30°-40°	600.6	17.0
40°-50°	614.7	17.4
50°-60°	553.4	15.7
60°-70°	434.6	12.3
70°-80°	282.1	8.0
80°-90°	87.2	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°	957.0	27.1
0°-40°	1557.6	44.1
0°-60°	2725.8	77.2
0°-90°	3529.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3529.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1240	1240	1240	1240	1240	
5°	1234	1237	1231	1238	1239	117
15°	1181	1184	1186	1196	1198	333
25°	1073	1082	1093	1111	1114	494
35°	927	938	961	984	991	578
45°	748	766	799	830	836	577
55°	557	582	624	657	664	500
65°	367	395	445	482	491	365
75°	186	222	279	317	326	197
85°	38	71	88	85	85	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1240.0	1240.0	1240.0	1240.0	1240.0
2.5°	1241.1	1241.1	1235.5	1241.1	1242.2
5°	1234.4	1236.6	1231.0	1237.8	1238.9
7.5°	1227.7	1227.7	1224.3	1231.0	1232.1
10°	1215.3	1216.5	1215.3	1223.2	1224.3
12.5°	1199.6	1201.9	1203.0	1210.8	1212.0
15°	1180.6	1183.9	1186.2	1196.3	1198.5
17.5°	1159.3	1162.6	1168.2	1179.5	1181.7
20°	1133.5	1138.0	1144.7	1159.3	1162.6
22.5°	1105.5	1109.9	1121.2	1134.6	1140.2
25°	1072.9	1081.9	1093.1	1111.1	1114.4
27.5°	1040.4	1048.3	1062.9	1081.9	1086.4
30°	1002.3	1014.6	1032.6	1051.6	1056.1
32.5°	965.3	977.6	998.9	1019.1	1024.7
35°	927.2	938.4	960.8	984.4	991.1
37.5°	883.5	898.0	922.7	946.3	953.0
40°	837.5	855.4	883.5	908.1	916.0
42.5°	793.8	812.8	840.9	867.8	876.7
45°	747.8	765.7	799.4	829.7	836.4
47.5°	700.7	720.9	756.8	787.1	798.3
50°	653.6	674.9	713.1	744.4	751.2
52.5°	606.5	629.0	669.3	703.0	706.3
55°	557.2	581.9	624.5	657.0	663.7
57.5°	512.4	533.7	579.6	613.3	621.1
60°	463.0	486.6	535.9	567.3	577.4
62.5°	415.9	440.6	492.2	523.6	532.5
65°	366.6	394.6	445.1	482.1	491.1
67.5°	324.0	350.9	404.7	440.6	449.6
70°	274.7	305.0	362.1	399.1	408.1
72.5°	232.1	263.5	320.7	356.5	370.0
75°	186.1	222.0	279.2	317.3	326.3
77.5°	141.3	182.7	241.0	270.2	270.2
80°	100.9	144.6	198.4	211.9	214.1
82.5°	66.1	108.8	146.9	145.8	145.8
85°	38.1	70.6	87.5	85.2	85.2
87.5°	14.6	29.2	31.4	31.4	30.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)