

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: P276633

Luminaire Tested: **24CZ2-50HE-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: P276633
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: 24CZ2-50HE-S-UNV-L92765-W2A1-U-2700K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 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: 3914.3 lumens
Efficiency: N/A
Efficacy: 109.9 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

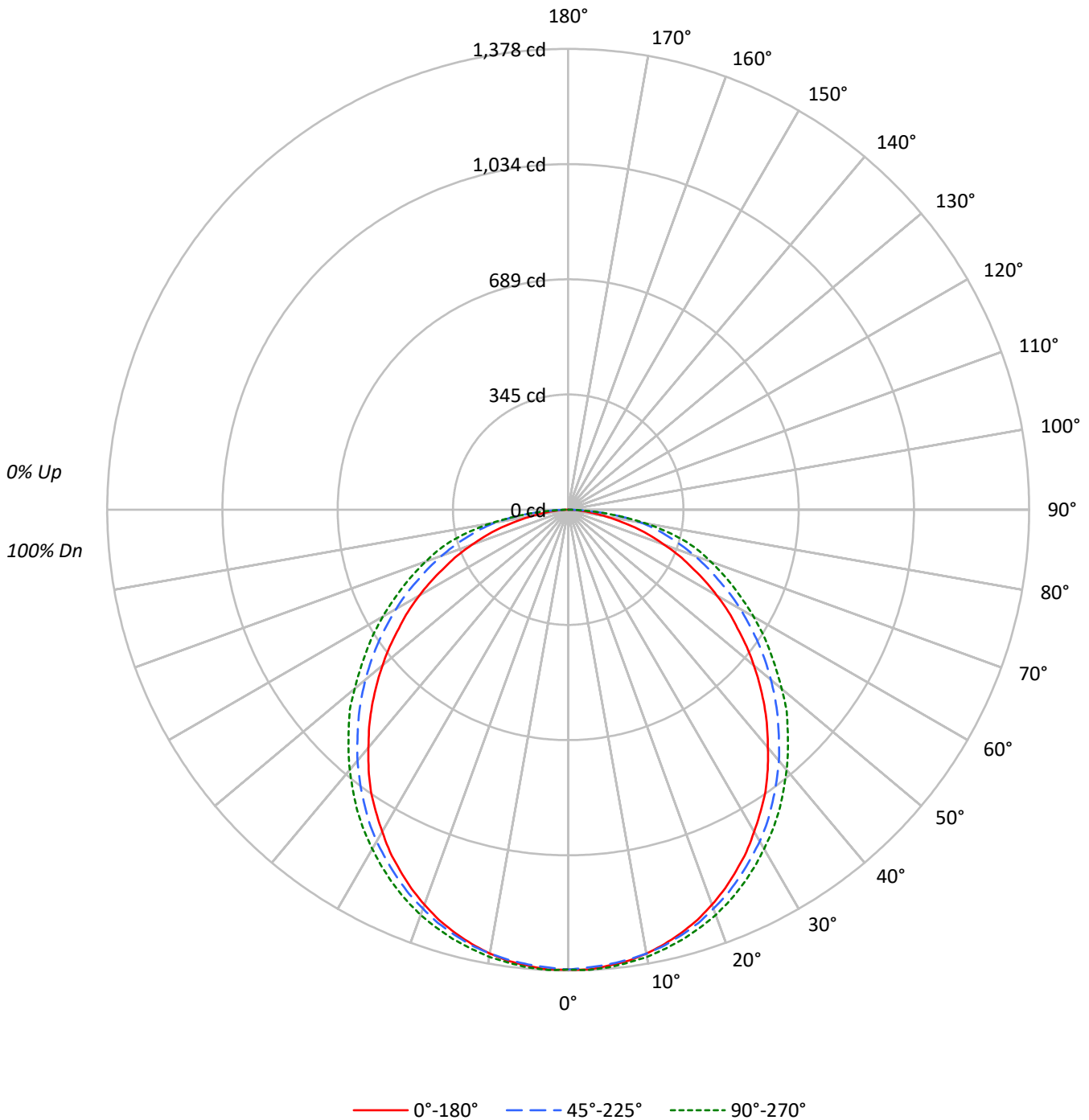
Input Watts (W): 35.619
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1850	1850	1850
5°	1849	1844	1856
10°	1841	1841	1855
15°	1824	1832	1851
20°	1800	1818	1846
25°	1767	1800	1835
30°	1727	1779	1820
35°	1689	1750	1805
40°	1631	1721	1784
45°	1578	1687	1765
50°	1517	1655	1744
55°	1449	1624	1727
60°	1382	1599	1723
65°	1294	1571	1734
70°	1198	1580	1781
75°	1073	1609	1881
80°	867	1705	1840
85°	653	1497	1459



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.2	3.3
10°-20°	372.0	9.5
20°-30°	559.2	14.3
30°-40°	666.1	17.0
40°-50°	681.7	17.4
50°-60°	613.7	15.7
60°-70°	482.0	12.3
70°-80°	312.8	8.0
80°-90°	96.7	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°	1061.3	27.1
0°-40°	1727.4	44.1
0°-60°	3022.8	77.2
0°-90°	3914.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3914.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1375	1375	1375	1375	1375	
5°	1369	1371	1365	1373	1374	130
15°	1309	1313	1316	1327	1329	369
25°	1190	1200	1212	1232	1236	548
35°	1028	1041	1066	1092	1099	641
45°	829	849	886	920	928	639
55°	618	645	692	729	736	554
65°	407	438	494	535	545	405
75°	206	246	310	352	362	218
85°	42	78	97	94	94	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1375.1	1375.1	1375.1	1375.1	1375.1
2.5°	1376.4	1376.4	1370.2	1376.4	1377.6
5°	1368.9	1371.4	1365.2	1372.6	1373.9
7.5°	1361.5	1361.5	1357.7	1365.2	1366.4
10°	1347.8	1349.0	1347.8	1356.5	1357.7
12.5°	1330.4	1332.9	1334.1	1342.8	1344.1
15°	1309.2	1313.0	1315.5	1326.6	1329.1
17.5°	1285.6	1289.3	1295.6	1308.0	1310.5
20°	1257.0	1262.0	1269.5	1285.6	1289.3
22.5°	1225.9	1230.9	1243.3	1258.3	1264.5
25°	1189.9	1199.8	1212.3	1232.2	1235.9
27.5°	1153.8	1162.5	1178.7	1199.8	1204.8
30°	1111.5	1125.2	1145.1	1166.3	1171.2
32.5°	1070.5	1084.2	1107.8	1130.2	1136.4
35°	1028.2	1040.7	1065.5	1091.7	1099.1
37.5°	979.8	995.9	1023.3	1049.4	1056.8
40°	928.8	948.7	979.8	1007.1	1015.8
42.5°	880.3	901.4	932.5	962.3	972.3
45°	829.3	849.2	886.5	920.1	927.5
47.5°	777.1	799.5	839.3	872.8	885.3
50°	724.9	748.5	790.8	825.6	833.0
52.5°	672.6	697.5	742.3	779.6	783.3
55°	617.9	645.3	692.5	728.6	736.1
57.5°	568.2	591.8	642.8	680.1	688.8
60°	513.5	539.6	594.3	629.1	640.3
62.5°	461.3	488.6	545.8	580.6	590.6
65°	406.6	437.7	493.6	534.6	544.6
67.5°	359.3	389.2	448.8	488.6	498.6
70°	304.6	338.2	401.6	442.6	452.6
72.5°	257.4	292.2	355.6	395.4	410.3
75°	206.4	246.2	309.6	351.9	361.8
77.5°	156.7	202.7	267.3	299.6	299.6
80°	111.9	160.4	220.1	235.0	237.5
82.5°	73.4	120.6	162.9	161.6	161.6
85°	42.3	78.3	97.0	94.5	94.5
87.5°	16.2	32.3	34.8	34.8	33.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)