

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: P276639

Luminaire Tested: **24CZ2-50HE-S-UNV-L92765-W2A1-U-5500K**

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: P276639
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-5500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4689.6 lumens
Efficiency: N/A
Efficacy: 127.7 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

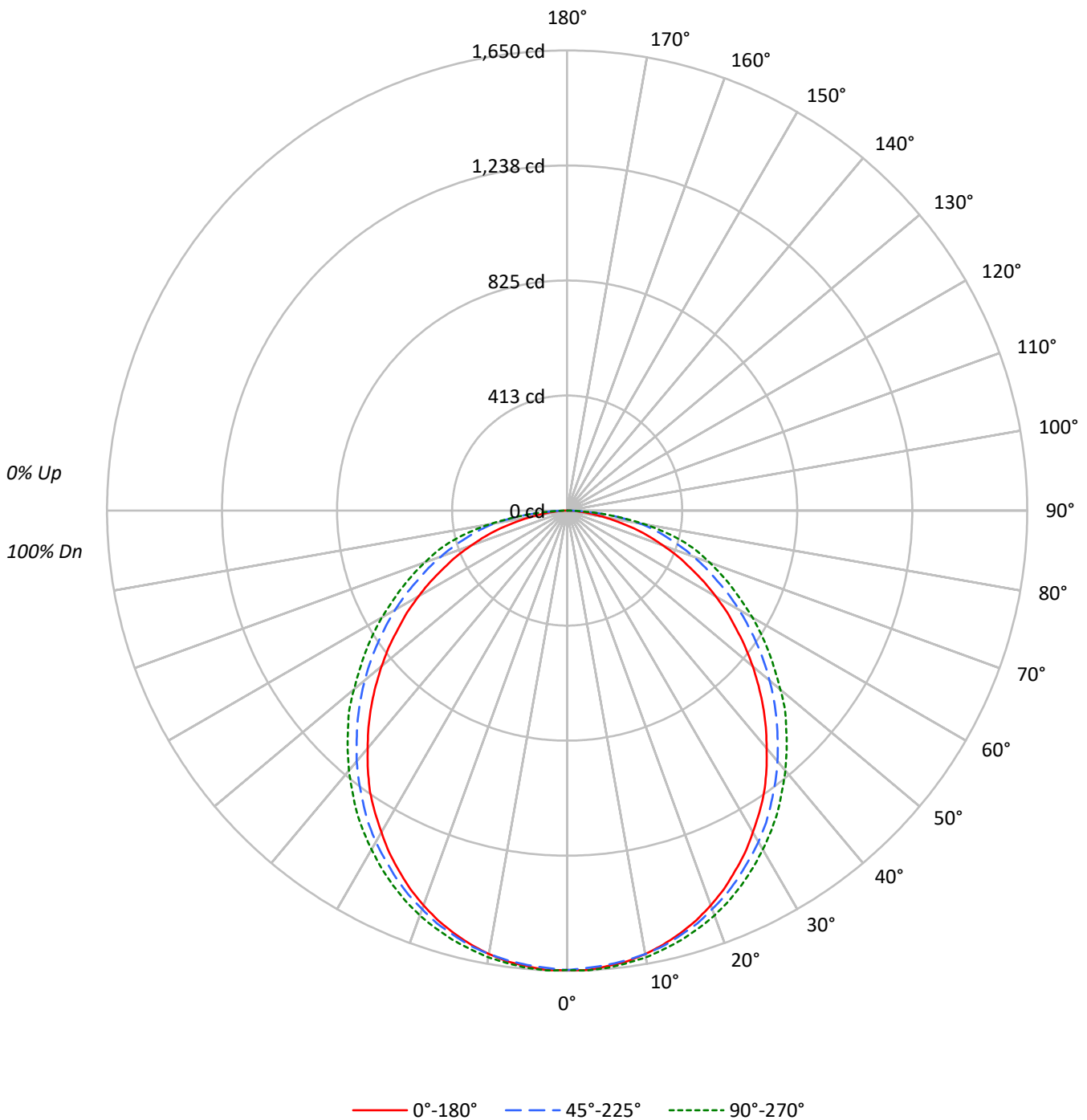
Input Watts (W): 36.735
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2217	2217	2217
5°	2215	2209	2223
10°	2206	2206	2222
15°	2185	2195	2218
20°	2156	2178	2212
25°	2116	2156	2198
30°	2069	2131	2180
35°	2023	2097	2163
40°	1954	2062	2138
45°	1891	2021	2115
50°	1818	1983	2089
55°	1737	1946	2069
60°	1655	1916	2064
65°	1551	1883	2077
70°	1436	1893	2133
75°	1286	1928	2254
80°	1039	2043	2204
85°	781	1794	1748



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.0	3.3
10°-20°	445.7	9.5
20°-30°	669.9	14.3
30°-40°	798.0	17.0
40°-50°	816.7	17.4
50°-60°	735.3	15.7
60°-70°	577.4	12.3
70°-80°	374.8	8.0
80°-90°	115.9	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°	1271.6	27.1
0°-40°	2069.6	44.1
0°-60°	3621.6	77.2
0°-90°	4689.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4689.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1648	1648	1648	1648	1648	
5°	1640	1643	1636	1644	1646	156
15°	1569	1573	1576	1589	1592	442
25°	1426	1438	1452	1476	1481	657
35°	1232	1247	1277	1308	1317	769
45°	994	1017	1062	1102	1111	766
55°	740	773	830	873	882	664
65°	487	524	591	640	652	485
75°	247	295	371	422	434	262
85°	51	94	116	113	113	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1647.5	1647.5	1647.5	1647.5	1647.5
2.5°	1649.0	1649.0	1641.6	1649.0	1650.5
5°	1640.1	1643.0	1635.6	1644.5	1646.0
7.5°	1631.1	1631.1	1626.7	1635.6	1637.1
10°	1614.7	1616.2	1614.7	1625.2	1626.7
12.5°	1593.9	1596.9	1598.4	1608.8	1610.3
15°	1568.6	1573.0	1576.0	1589.4	1592.4
17.5°	1540.3	1544.7	1552.2	1567.1	1570.1
20°	1506.0	1512.0	1520.9	1540.3	1544.7
22.5°	1468.8	1474.7	1489.6	1507.5	1514.9
25°	1425.6	1437.5	1452.4	1476.2	1480.7
27.5°	1382.4	1392.8	1412.2	1437.5	1443.4
30°	1331.7	1348.1	1371.9	1397.3	1403.2
32.5°	1282.6	1298.9	1327.2	1354.1	1361.5
35°	1231.9	1246.8	1276.6	1307.9	1316.8
37.5°	1173.8	1193.2	1226.0	1257.2	1266.2
40°	1112.7	1136.6	1173.8	1206.6	1217.0
42.5°	1054.6	1080.0	1117.2	1153.0	1164.9
45°	993.6	1017.4	1062.1	1102.3	1111.3
47.5°	931.0	957.8	1005.5	1045.7	1060.6
50°	868.4	896.7	947.4	989.1	998.0
52.5°	805.9	835.7	889.3	934.0	938.5
55°	740.3	773.1	829.7	872.9	881.8
57.5°	680.8	709.1	770.1	814.8	825.2
60°	615.2	646.5	712.0	753.7	767.1
62.5°	552.6	585.4	653.9	695.6	707.6
65°	487.1	524.3	591.4	640.5	652.4
67.5°	430.5	466.2	537.7	585.4	597.3
70°	365.0	405.2	481.1	530.3	542.2
72.5°	308.3	350.1	426.0	473.7	491.6
75°	247.3	294.9	370.9	421.6	433.5
77.5°	187.7	242.8	320.3	359.0	359.0
80°	134.1	192.2	263.7	281.5	284.5
82.5°	87.9	144.5	195.1	193.6	193.6
85°	50.6	93.8	116.2	113.2	113.2
87.5°	19.4	38.7	41.7	41.7	40.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)