

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: P276638

Luminaire Tested: **24CZ2-50HE-S-UNV-L92765-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: P276638
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-5000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 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: 4618.1 lumens
Efficiency: N/A
Efficacy: 126.4 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

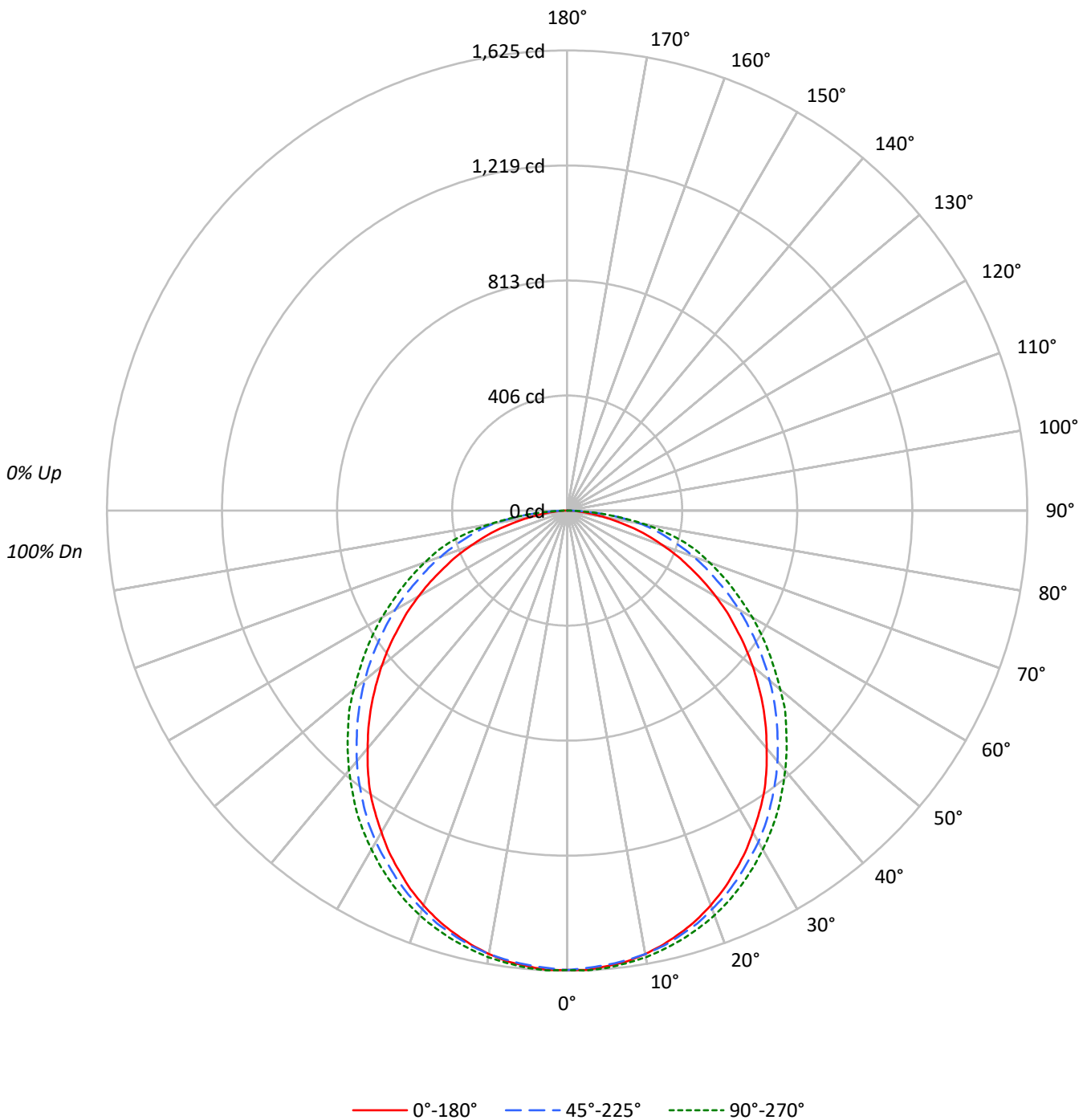
Input Watts (W): 36.549
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2183	2183	2183
5°	2181	2175	2189
10°	2172	2172	2188
15°	2152	2162	2184
20°	2123	2144	2178
25°	2084	2123	2165
30°	2037	2099	2147
35°	1993	2065	2130
40°	1925	2030	2105
45°	1862	1990	2082
50°	1790	1953	2057
55°	1710	1917	2037
60°	1630	1887	2033
65°	1527	1854	2046
70°	1414	1864	2100
75°	1266	1899	2219
80°	1023	2011	2171
85°	770	1766	1721



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.6	3.3
10°-20°	438.9	9.5
20°-30°	659.7	14.3
30°-40°	785.8	17.0
40°-50°	804.3	17.4
50°-60°	724.1	15.7
60°-70°	568.6	12.3
70°-80°	369.0	8.0
80°-90°	114.1	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°	1252.2	27.1
0°-40°	2038.0	44.1
0°-60°	3566.3	77.2
0°-90°	4618.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4618.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1622	1622	1622	1622	1622	
5°	1615	1618	1611	1619	1621	153
15°	1545	1549	1552	1565	1568	436
25°	1404	1416	1430	1454	1458	647
35°	1213	1228	1257	1288	1297	757
45°	978	1002	1046	1086	1094	754
55°	729	761	817	860	868	654
65°	480	516	582	631	642	477
75°	244	290	365	415	427	258
85°	50	92	114	112	112	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1622.4	1622.4	1622.4	1622.4	1622.4
2.5°	1623.8	1623.8	1616.5	1623.8	1625.3
5°	1615.0	1618.0	1610.6	1619.4	1620.9
7.5°	1606.2	1606.2	1601.8	1610.6	1612.1
10°	1590.1	1591.6	1590.1	1600.4	1601.8
12.5°	1569.6	1572.5	1574.0	1584.2	1585.7
15°	1544.6	1549.0	1552.0	1565.2	1568.1
17.5°	1516.8	1521.2	1528.5	1543.2	1546.1
20°	1483.0	1488.9	1497.7	1516.8	1521.2
22.5°	1446.3	1452.2	1466.9	1484.5	1491.8
25°	1403.8	1415.5	1430.2	1453.7	1458.1
27.5°	1361.3	1371.5	1390.6	1415.5	1421.4
30°	1311.4	1327.5	1351.0	1375.9	1381.8
32.5°	1263.0	1279.1	1307.0	1333.4	1340.7
35°	1213.1	1227.8	1257.1	1287.9	1296.7
37.5°	1155.9	1175.0	1207.2	1238.0	1246.8
40°	1095.8	1119.2	1155.9	1188.2	1198.4
42.5°	1038.6	1063.5	1100.2	1135.4	1147.1
45°	978.4	1001.9	1045.9	1085.5	1094.3
47.5°	916.8	943.2	990.1	1029.7	1044.4
50°	855.2	883.1	932.9	974.0	982.8
52.5°	793.6	822.9	875.7	919.7	924.1
55°	729.0	761.3	817.1	859.6	868.4
57.5°	670.4	698.2	758.4	802.4	812.7
60°	605.8	636.6	701.2	742.2	755.4
62.5°	544.2	576.5	644.0	685.0	696.8
65°	479.7	516.3	582.4	630.8	642.5
67.5°	423.9	459.1	529.5	576.5	588.2
70°	359.4	399.0	473.8	522.2	533.9
72.5°	303.6	344.7	419.5	466.5	484.1
75°	243.5	290.4	365.3	415.1	426.9
77.5°	184.8	239.1	315.4	353.5	353.5
80°	132.0	189.2	259.6	277.2	280.2
82.5°	86.5	142.3	192.2	190.7	190.7
85°	49.9	92.4	114.4	111.5	111.5
87.5°	19.1	38.1	41.1	41.1	39.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)