

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: P276040

Luminaire Tested: **24CZ2-50-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276040
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50-UNV-L93050-W2A1-U-4500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER
WITH RIBBED LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4419.7 lumens
Efficiency: N/A
Efficacy: 106.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

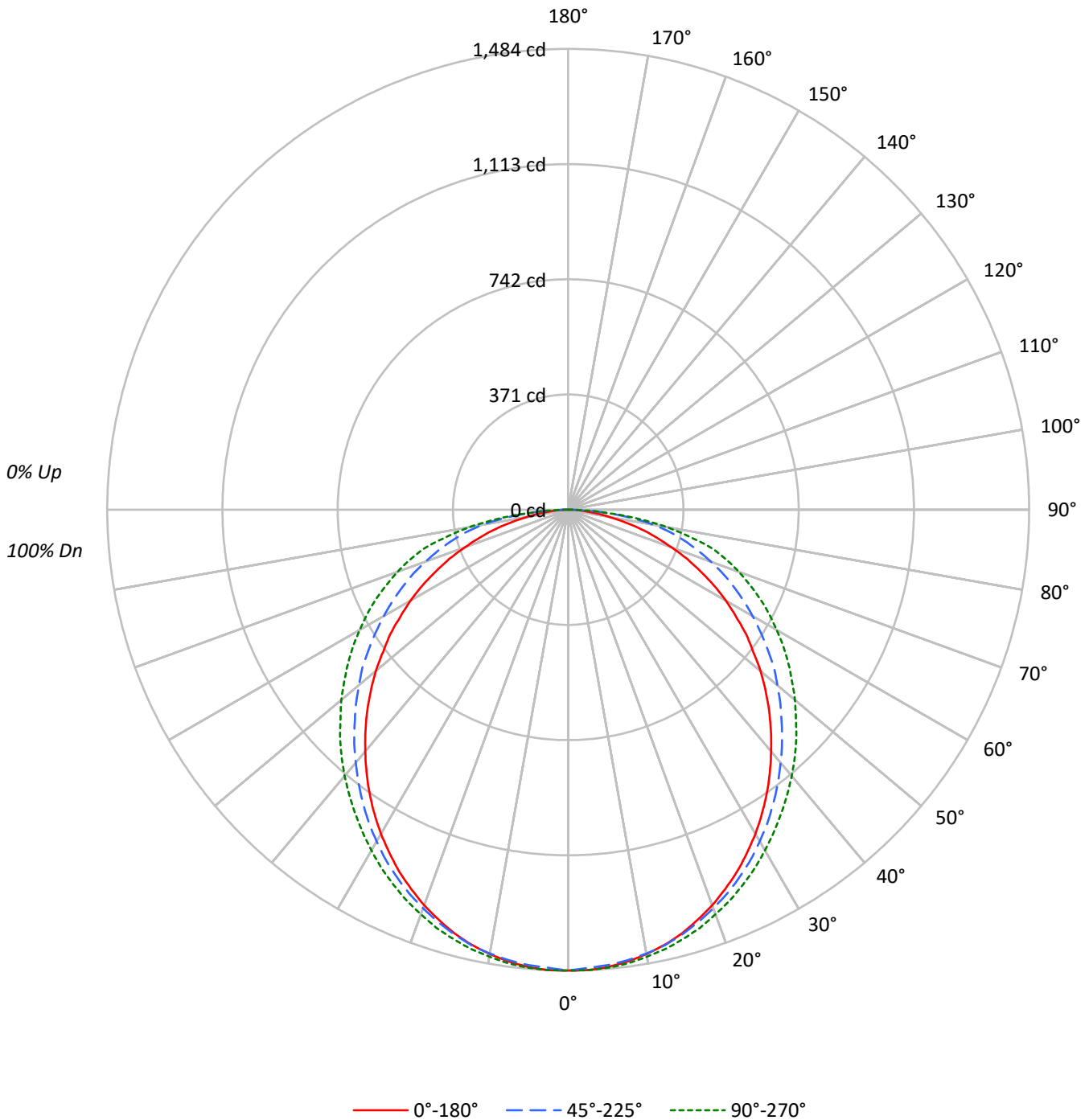
Input Watts (W): 41.378862
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1997	1997	1997
5°	1996	1988	2000
10°	1985	1983	1997
15°	1968	1972	1993
20°	1941	1956	1985
25°	1909	1938	1977
30°	1872	1916	1968
35°	1832	1892	1963
40°	1785	1868	1966
45°	1740	1850	1976
50°	1692	1840	1995
55°	1640	1837	2031
60°	1576	1846	2084
65°	1493	1874	2174
70°	1387	1921	2298
75°	1265	2017	2492
80°	1040	2172	2492
85°	797	2004	2141



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.3	3.2
10°-20°	400.7	9.1
20°-30°	602.9	13.6
30°-40°	722.5	16.3
40°-50°	753.0	17.0
50°-60°	700.6	15.9
60°-70°	577.0	13.1
70°-80°	393.0	8.9
80°-90°	129.7	2.9
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°	1143.9	25.9
0°-40°	1866.4	42.2
0°-60°	3320.0	75.1
0°-90°	4419.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4419.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1484	1484	1484	1484	1484	
5°	1478	1478	1472	1479	1481	140
15°	1413	1414	1416	1429	1431	398
25°	1286	1292	1305	1328	1332	592
35°	1115	1128	1152	1183	1195	697
45°	914	934	972	1021	1038	705
55°	699	723	783	845	866	623
65°	469	509	588	658	683	466
75°	243	298	388	457	479	257
85°	52	100	130	139	139	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1483.9	1483.9	1483.9	1483.9	1483.9
2.5°	1483.9	1483.9	1476.5	1483.9	1483.9
5°	1478.0	1478.0	1472.1	1479.4	1480.9
7.5°	1467.6	1469.1	1463.2	1472.1	1473.5
10°	1452.9	1454.4	1451.4	1460.3	1461.7
12.5°	1435.2	1436.7	1436.7	1447.0	1448.5
15°	1413.1	1414.5	1416.0	1429.3	1430.8
17.5°	1385.0	1389.5	1392.4	1408.6	1411.6
20°	1355.5	1360.0	1365.9	1383.6	1386.5
22.5°	1321.6	1327.5	1337.8	1357.0	1361.4
25°	1286.2	1292.1	1305.4	1327.5	1331.9
27.5°	1246.4	1255.2	1271.5	1295.1	1301.0
30°	1205.1	1213.9	1233.1	1258.2	1267.0
32.5°	1160.8	1172.6	1194.8	1222.8	1231.6
35°	1115.1	1128.4	1152.0	1183.0	1194.8
37.5°	1066.4	1081.2	1109.2	1143.1	1157.9
40°	1016.3	1034.0	1063.5	1103.3	1119.5
42.5°	966.1	982.4	1019.2	1062.0	1079.7
45°	914.5	933.7	972.0	1020.7	1038.4
47.5°	861.4	880.6	926.3	977.9	994.2
50°	808.3	827.5	879.1	933.7	952.9
52.5°	750.8	775.9	834.9	889.4	908.6
55°	699.2	722.8	783.2	845.2	865.8
57.5°	640.2	668.2	734.6	799.5	821.6
60°	585.6	615.1	685.9	752.3	774.4
62.5°	529.5	562.0	637.2	705.1	730.1
65°	469.1	508.9	588.5	657.9	682.9
67.5°	414.5	455.8	539.9	610.7	632.8
70°	352.5	402.7	488.2	559.0	584.1
72.5°	299.4	349.6	439.6	508.9	534.0
75°	243.4	298.0	387.9	457.3	479.4
77.5°	187.3	247.8	337.8	390.9	398.3
80°	134.2	197.7	280.3	311.2	321.6
82.5°	94.4	151.9	206.5	227.2	233.1
85°	51.6	100.3	129.8	138.7	138.7
87.5°	22.1	42.8	51.6	53.1	54.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)