

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: P276076

Luminaire Tested: **24CZ2-45HE-UNV-L82765-W2A1-U-5700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276076
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: 24CZ2-45HE-UNV-L82765-W2A1-U-5700K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER
WITH RIBBED LENS
Light Source: (336) 80 CRI LEDS TUNED TO 5700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4423.5 lumens
Efficiency: N/A
Efficacy: 137.1 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

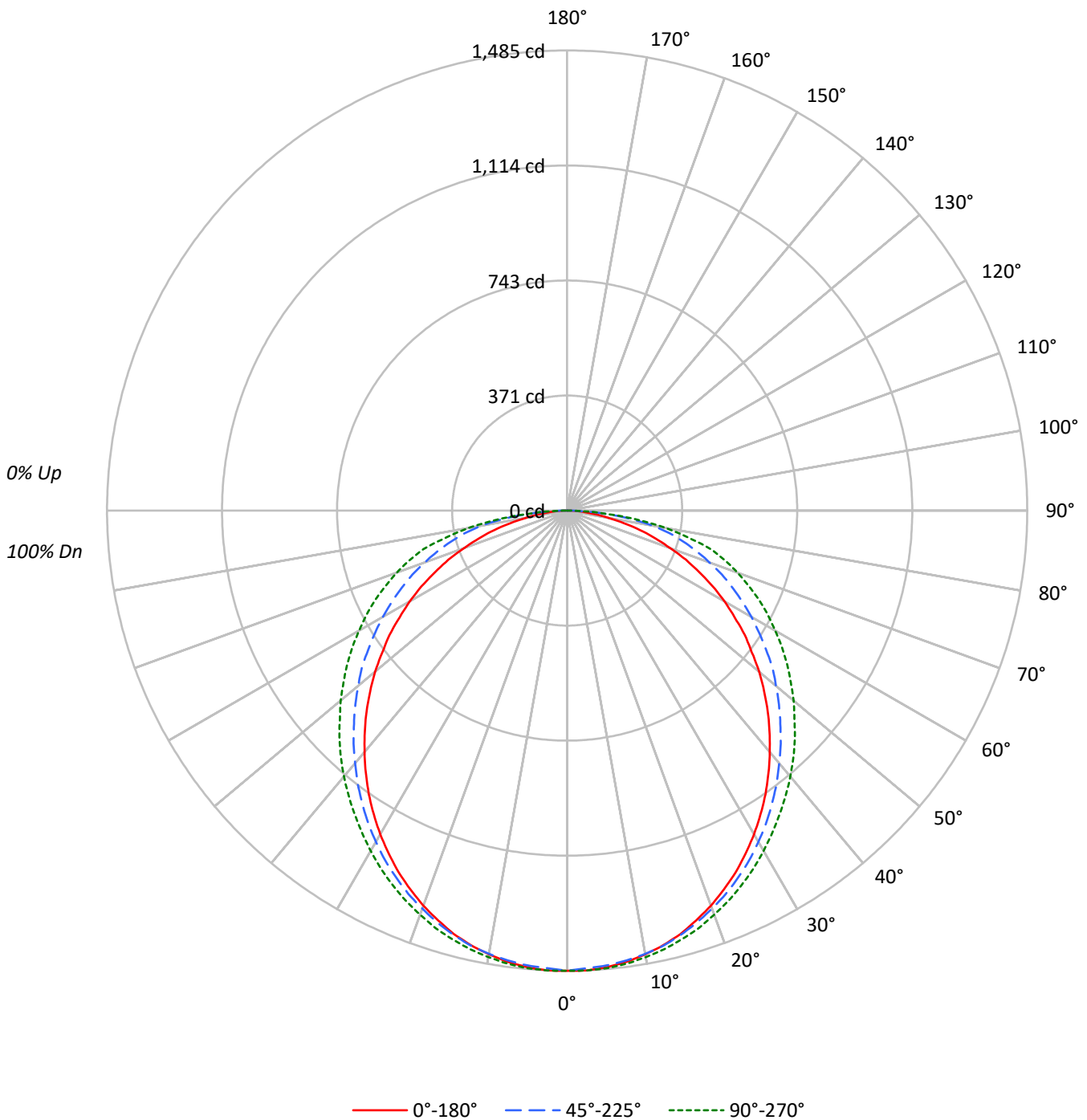
Input Watts (W): 32.271
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1998	1998	1998
5°	1998	1990	2002
10°	1987	1985	1999
15°	1970	1974	1995
20°	1943	1957	1987
25°	1911	1940	1979
30°	1874	1917	1970
35°	1833	1894	1964
40°	1787	1870	1968
45°	1742	1851	1978
50°	1693	1842	1996
55°	1642	1839	2033
60°	1577	1847	2086
65°	1495	1875	2176
70°	1388	1923	2300
75°	1266	2019	2494
80°	1041	2173	2493
85°	798	2005	2143



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.5	3.2
10°-20°	401.0	9.1
20°-30°	603.4	13.6
30°-40°	723.2	16.3
40°-50°	753.6	17.0
50°-60°	701.2	15.9
60°-70°	577.5	13.1
70°-80°	393.3	8.9
80°-90°	129.9	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°	1144.9	25.9
0°-40°	1868.1	42.2
0°-60°	3322.9	75.1
0°-90°	4423.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4423.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1485	1485	1485	1485	1485	
5°	1479	1479	1473	1481	1482	140
15°	1414	1416	1417	1430	1432	398
25°	1287	1293	1306	1329	1333	593
35°	1116	1129	1153	1184	1196	698
45°	915	934	973	1022	1039	706
55°	700	723	784	846	867	624
65°	470	509	589	658	684	466
75°	244	298	388	458	480	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°	1485.2	1485.2	1485.2	1485.2	1485.2
2.5°	1485.2	1485.2	1477.8	1485.2	1485.2
5°	1479.3	1479.3	1473.4	1480.7	1482.2
7.5°	1468.9	1470.4	1464.5	1473.4	1474.8
10°	1454.2	1455.6	1452.7	1461.6	1463.0
12.5°	1436.5	1437.9	1437.9	1448.3	1449.7
15°	1414.3	1415.8	1417.3	1430.5	1432.0
17.5°	1386.3	1390.7	1393.6	1409.9	1412.8
20°	1356.7	1361.2	1367.1	1384.8	1387.7
22.5°	1322.8	1328.7	1339.0	1358.2	1362.6
25°	1287.3	1293.3	1306.5	1328.7	1333.1
27.5°	1247.5	1256.3	1272.6	1296.2	1302.1
30°	1206.1	1215.0	1234.2	1259.3	1268.2
32.5°	1161.9	1173.7	1195.8	1223.9	1232.7
35°	1116.1	1129.4	1153.0	1184.0	1195.8
37.5°	1067.4	1082.1	1110.2	1144.1	1158.9
40°	1017.2	1034.9	1064.4	1104.3	1120.5
42.5°	967.0	983.2	1020.1	1062.9	1080.7
45°	915.3	934.5	972.9	1021.6	1039.3
47.5°	862.2	881.4	927.1	978.8	995.0
50°	809.0	828.2	879.9	934.5	953.7
52.5°	751.4	776.5	835.6	890.2	909.4
55°	699.8	723.4	783.9	845.9	866.6
57.5°	640.7	668.8	735.2	800.2	822.3
60°	586.1	615.6	686.5	752.9	775.1
62.5°	530.0	562.5	637.8	705.7	730.8
65°	469.5	509.3	589.0	658.4	683.5
67.5°	414.8	456.2	540.3	611.2	633.3
70°	352.8	403.0	488.7	559.5	584.6
72.5°	299.7	349.9	439.9	509.3	534.4
75°	243.6	298.2	388.3	457.7	479.8
77.5°	187.5	248.0	338.1	391.2	398.6
80°	134.3	197.8	280.5	311.5	321.8
82.5°	94.5	152.1	206.7	227.4	233.3
85°	51.7	100.4	129.9	138.8	138.8
87.5°	22.1	42.8	51.7	53.1	54.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)