

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: P275909

Luminaire Tested: **24CZ2-45HE-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P275909
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-L83050-W2A1-U-4000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER
WITH RIBBED LENS
Light Source: (336) 80 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4455.0 lumens
Efficiency: N/A
Efficacy: 138.4 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

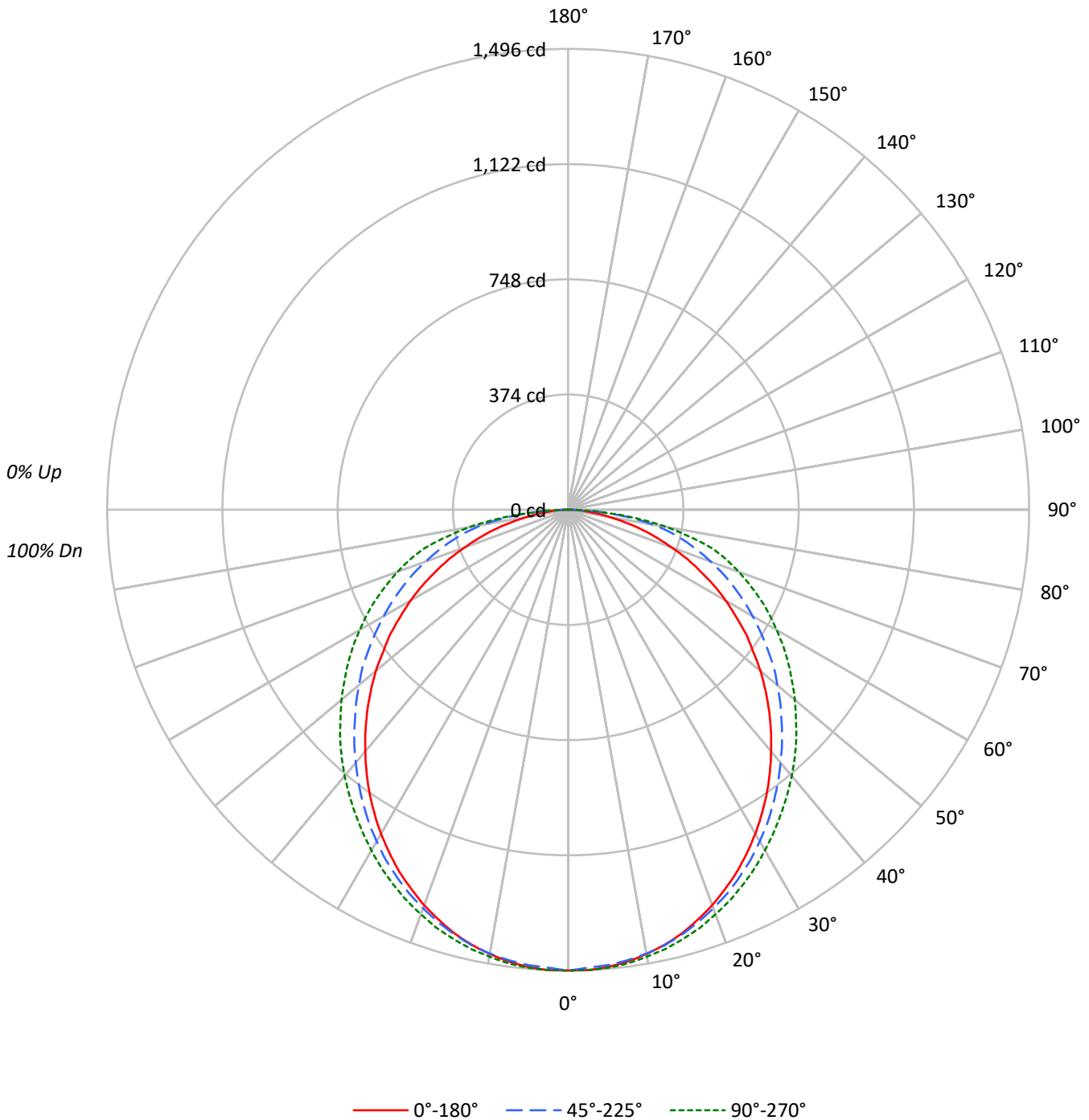
Input Watts (W): 32.178
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2013	2013	2013
5°	2012	2004	2016
10°	2001	1999	2013
15°	1984	1988	2009
20°	1956	1971	2001
25°	1925	1953	1993
30°	1887	1931	1984
35°	1846	1907	1978
40°	1799	1883	1982
45°	1754	1864	1992
50°	1706	1855	2011
55°	1653	1852	2047
60°	1588	1861	2101
65°	1505	1889	2192
70°	1398	1936	2316
75°	1275	2033	2512
80°	1048	2189	2511
85°	803	2019	2158



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.5	3.2
10°-20°	403.9	9.1
20°-30°	607.7	13.6
30°-40°	728.3	16.3
40°-50°	759.0	17.0
50°-60°	706.2	15.9
60°-70°	581.6	13.1
70°-80°	396.1	8.9
80°-90°	130.8	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°	1153.1	25.9
0°-40°	1881.4	42.2
0°-60°	3346.5	75.1
0°-90°	4455.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4455.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1496	1496	1496	1496	1496	
5°	1490	1490	1484	1491	1493	141
15°	1424	1426	1427	1441	1442	401
25°	1296	1302	1316	1338	1343	597
35°	1124	1137	1161	1192	1204	703
45°	922	941	980	1029	1047	711
55°	705	728	790	852	873	628
65°	473	513	593	663	688	469
75°	245	300	391	461	483	259
85°	52	101	131	140	140	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1495.8	1495.8	1495.8	1495.8	1495.8
2.5°	1495.8	1495.8	1488.3	1495.8	1495.8
5°	1489.8	1489.8	1483.9	1491.3	1492.8
7.5°	1479.4	1480.9	1474.9	1483.9	1485.3
10°	1464.5	1466.0	1463.0	1472.0	1473.4
12.5°	1446.7	1448.2	1448.2	1458.6	1460.1
15°	1424.4	1425.9	1427.4	1440.7	1442.2
17.5°	1396.1	1400.6	1403.6	1419.9	1422.9
20°	1366.4	1370.9	1376.8	1394.6	1397.6
22.5°	1332.2	1338.1	1348.6	1367.9	1372.3
25°	1296.5	1302.5	1315.8	1338.1	1342.6
27.5°	1256.4	1265.3	1281.6	1305.4	1311.4
30°	1214.7	1223.7	1243.0	1268.3	1277.2
32.5°	1170.1	1182.0	1204.3	1232.6	1241.5
35°	1124.0	1137.4	1161.2	1192.4	1204.3
37.5°	1075.0	1089.8	1118.1	1152.3	1167.2
40°	1024.4	1042.3	1072.0	1112.1	1128.5
42.5°	973.9	990.2	1027.4	1070.5	1088.4
45°	921.8	941.2	979.8	1028.9	1046.7
47.5°	868.3	887.6	933.7	985.8	1002.1
50°	814.8	834.1	886.2	941.2	960.5
52.5°	756.8	782.1	841.5	896.6	915.9
55°	704.8	728.5	789.5	852.0	872.8
57.5°	645.3	673.5	740.4	805.9	828.2
60°	590.3	620.0	691.4	758.3	780.6
62.5°	533.8	566.5	642.3	710.7	736.0
65°	472.8	513.0	593.2	663.1	688.4
67.5°	417.8	459.4	544.2	615.5	637.8
70°	355.4	405.9	492.1	563.5	588.8
72.5°	301.8	352.4	443.1	513.0	538.2
75°	245.3	300.3	391.0	460.9	483.2
77.5°	188.8	249.8	340.5	394.0	401.4
80°	135.3	199.2	282.5	313.7	324.1
82.5°	95.2	153.1	208.2	229.0	234.9
85°	52.0	101.1	130.8	139.8	139.8
87.5°	22.3	43.1	52.0	53.5	55.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)