

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: P276487

Luminaire Tested: **24CZ2-40HE-S-UNV-L82765-W2A1-U-5700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276487
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: 24CZ2-40HE-S-UNV-L82765-W2A1-U-5700K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (336) 80 CRI LEDS TUNED TO 5700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4220.5 lumens
Efficiency: N/A
Efficacy: 145.0 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

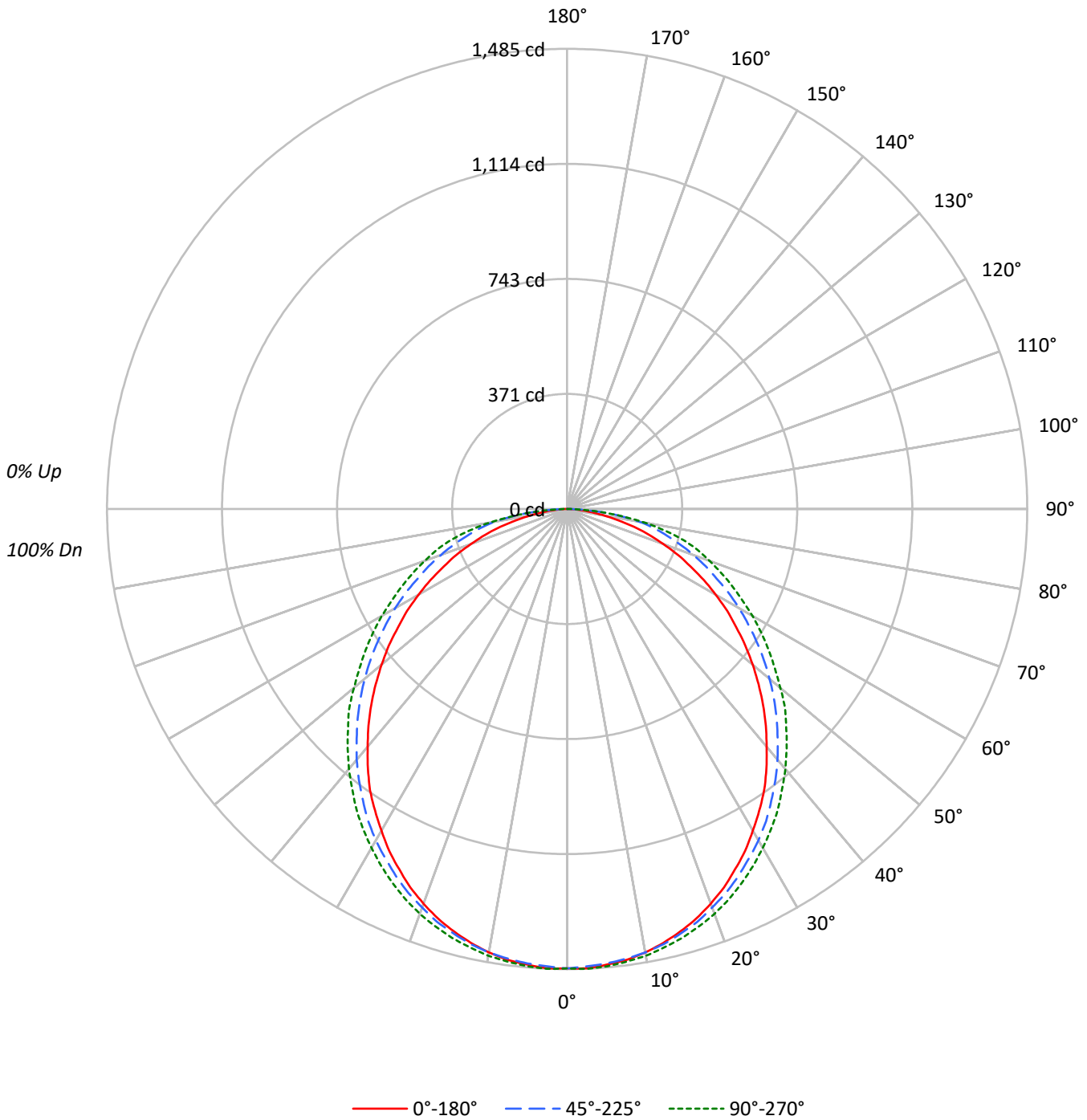
Input Watts (W): 29.109
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1995	1995	1995
5°	1994	1988	2001
10°	1985	1985	2000
15°	1966	1976	1996
20°	1941	1960	1991
25°	1905	1940	1978
30°	1862	1918	1962
35°	1821	1887	1947
40°	1759	1855	1924
45°	1701	1819	1903
50°	1636	1785	1880
55°	1563	1752	1862
60°	1490	1724	1858
65°	1396	1694	1869
70°	1292	1703	1920
75°	1157	1735	2028
80°	935	1839	1984
85°	704	1615	1573



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.4	3.3
10°-20°	401.1	9.5
20°-30°	602.9	14.3
30°-40°	718.2	17.0
40°-50°	735.0	17.4
50°-60°	661.7	15.7
60°-70°	519.7	12.3
70°-80°	337.3	8.0
80°-90°	104.3	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°	1144.4	27.1
0°-40°	1862.5	44.1
0°-60°	3259.3	77.2
0°-90°	4220.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4220.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1483	1483	1483	1483	1483	
5°	1476	1479	1472	1480	1481	140
15°	1412	1416	1418	1430	1433	398
25°	1283	1294	1307	1328	1332	591
35°	1109	1122	1149	1177	1185	692
45°	894	916	956	992	1000	689
55°	666	696	747	786	794	597
65°	438	472	532	576	587	436
75°	222	265	334	379	390	235
85°	46	84	105	102	102	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1482.7	1482.7	1482.7	1482.7	1482.7
2.5°	1484.0	1484.0	1477.3	1484.0	1485.4
5°	1476.0	1478.7	1472.0	1480.0	1481.3
7.5°	1467.9	1467.9	1463.9	1472.0	1473.3
10°	1453.2	1454.5	1453.2	1462.6	1463.9
12.5°	1434.4	1437.1	1438.4	1447.8	1449.2
15°	1411.6	1415.7	1418.3	1430.4	1433.1
17.5°	1386.2	1390.2	1396.9	1410.3	1413.0
20°	1355.3	1360.7	1368.7	1386.2	1390.2
22.5°	1321.8	1327.2	1340.6	1356.7	1363.4
25°	1282.9	1293.7	1307.1	1328.5	1332.5
27.5°	1244.1	1253.4	1270.9	1293.7	1299.0
30°	1198.5	1213.2	1234.7	1257.5	1262.8
32.5°	1154.2	1169.0	1194.5	1218.6	1225.3
35°	1108.7	1122.1	1148.9	1177.0	1185.1
37.5°	1056.4	1073.8	1103.3	1131.5	1139.5
40°	1001.4	1022.9	1056.4	1085.9	1095.3
42.5°	949.1	971.9	1005.4	1037.6	1048.3
45°	894.2	915.6	955.8	992.0	1000.1
47.5°	837.9	862.0	904.9	941.1	954.5
50°	781.6	807.0	852.6	890.1	898.2
52.5°	725.3	752.1	800.3	840.5	844.6
55°	666.3	695.8	746.7	785.6	793.6
57.5°	612.6	638.1	693.1	733.3	742.7
60°	553.7	581.8	640.8	678.3	690.4
62.5°	497.4	526.9	588.5	626.1	636.8
65°	438.4	471.9	532.2	576.5	587.2
67.5°	387.4	419.6	484.0	526.9	537.6
70°	328.4	364.6	433.0	477.2	488.0
72.5°	277.5	315.0	383.4	426.3	442.4
75°	222.5	265.4	333.8	379.4	390.1
77.5°	168.9	218.5	288.2	323.1	323.1
80°	120.7	172.9	237.3	253.4	256.1
82.5°	79.1	130.0	175.6	174.3	174.3
85°	45.6	84.5	104.6	101.9	101.9
87.5°	17.4	34.9	37.5	37.5	36.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)