

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: P276488

Luminaire Tested: **24CZ2-40HE-S-UNV-L82765-W2A1-U-6500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276488
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-6500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (336) 80 CRI LEDS TUNED TO 6500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4231.4 lumens
Efficiency: N/A
Efficacy: 143.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

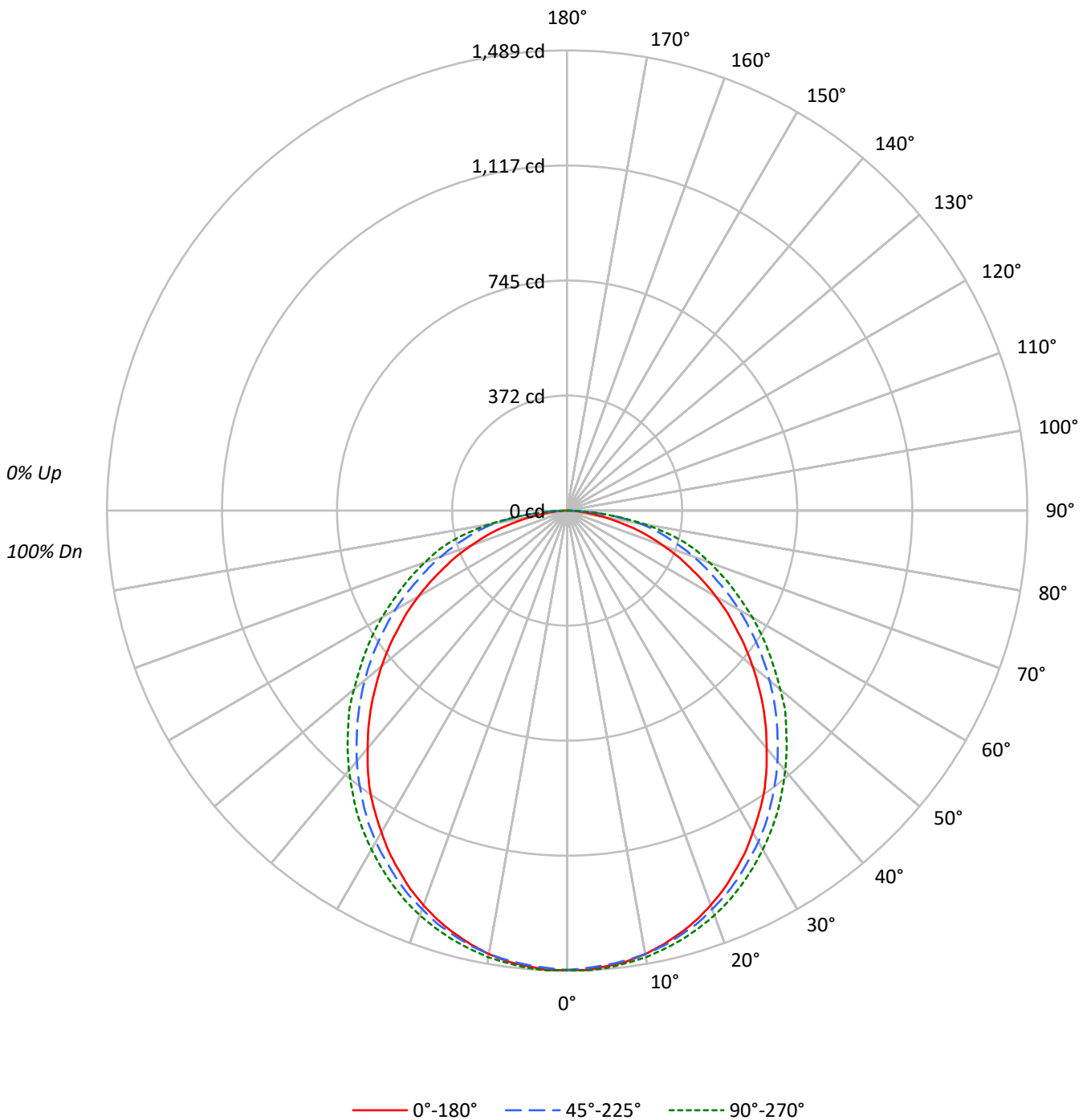
Input Watts (W): 29.574
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2000	2000	2000
5°	1999	1993	2006
10°	1991	1991	2005
15°	1971	1981	2001
20°	1946	1965	1996
25°	1910	1946	1983
30°	1867	1923	1967
35°	1826	1892	1952
40°	1763	1860	1929
45°	1706	1823	1908
50°	1640	1789	1885
55°	1567	1756	1867
60°	1494	1729	1863
65°	1399	1699	1874
70°	1295	1708	1924
75°	1160	1740	2033
80°	938	1843	1989
85°	706	1618	1576



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.7	3.3
10°-20°	402.1	9.5
20°-30°	604.5	14.3
30°-40°	720.0	17.0
40°-50°	736.9	17.4
50°-60°	663.4	15.7
60°-70°	521.0	12.3
70°-80°	338.1	8.0
80°-90°	104.6	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°	1147.3	27.1
0°-40°	1867.4	44.1
0°-60°	3267.7	77.2
0°-90°	4231.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4231.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1486	1486	1486	1486	1486	
5°	1480	1482	1476	1484	1485	141
15°	1415	1419	1422	1434	1437	399
25°	1286	1297	1310	1332	1336	593
35°	1112	1125	1152	1180	1188	693
45°	896	918	958	995	1003	691
55°	668	698	749	788	796	599
65°	440	473	534	578	589	437
75°	223	266	335	380	391	236
85°	46	85	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°	1486.5	1486.5	1486.5	1486.5	1486.5
2.5°	1487.9	1487.9	1481.2	1487.9	1489.2
5°	1479.8	1482.5	1475.8	1483.8	1485.2
7.5°	1471.7	1471.7	1467.7	1475.8	1477.1
10°	1457.0	1458.3	1457.0	1466.4	1467.7
12.5°	1438.1	1440.8	1442.2	1451.6	1452.9
15°	1415.3	1419.3	1422.0	1434.1	1436.8
17.5°	1389.8	1393.8	1400.5	1414.0	1416.6
20°	1358.8	1364.2	1372.3	1389.8	1393.8
22.5°	1325.2	1330.6	1344.1	1360.2	1366.9
25°	1286.3	1297.0	1310.5	1332.0	1336.0
27.5°	1247.3	1256.7	1274.2	1297.0	1302.4
30°	1201.6	1216.4	1237.9	1260.7	1266.1
32.5°	1157.2	1172.0	1197.6	1221.8	1228.5
35°	1111.5	1125.0	1151.9	1180.1	1188.1
37.5°	1059.1	1076.6	1106.2	1134.4	1142.5
40°	1004.0	1025.5	1059.1	1088.7	1098.1
42.5°	951.6	974.4	1008.0	1040.3	1051.1
45°	896.5	918.0	958.3	994.6	1002.7
47.5°	840.0	864.2	907.2	943.5	957.0
50°	783.6	809.1	854.8	892.5	900.5
52.5°	727.1	754.0	802.4	842.7	846.8
55°	668.0	697.6	748.6	787.6	795.7
57.5°	614.2	639.8	694.9	735.2	744.6
60°	555.1	583.3	642.5	680.1	692.2
62.5°	498.6	528.2	590.0	627.7	638.4
65°	439.5	473.1	533.6	577.9	588.7
67.5°	388.4	420.7	485.2	528.2	539.0
70°	329.3	365.6	434.1	478.5	489.2
72.5°	278.2	315.9	384.4	427.4	443.5
75°	223.1	266.1	334.7	380.4	391.1
77.5°	169.4	219.1	289.0	323.9	323.9
80°	121.0	173.4	237.9	254.0	256.7
82.5°	79.3	130.4	176.1	174.7	174.7
85°	45.7	84.7	104.8	102.1	102.1
87.5°	17.5	34.9	37.6	37.6	36.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)