

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: P276325

Luminaire Tested: **24CZ2-40HE-S-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276325
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-L83050-W2A1-U-4500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (336) 80 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4291.0 lumens
Efficiency: N/A
Efficacy: 144.7 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

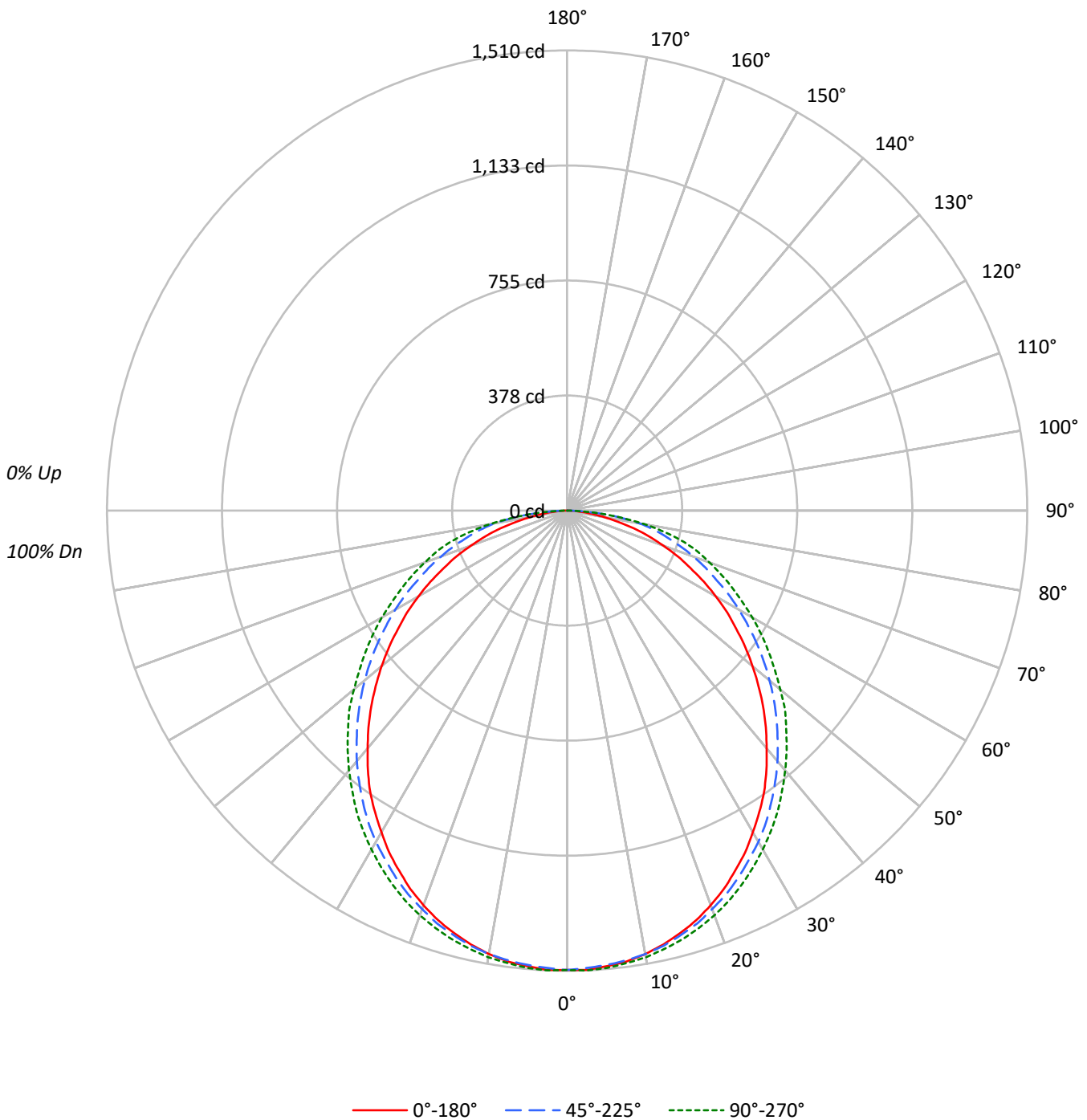
Input Watts (W): 29.657328
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2028	2028	2028
5°	2027	2021	2034
10°	2019	2019	2034
15°	1999	2009	2030
20°	1973	1993	2024
25°	1936	1973	2011
30°	1893	1950	1995
35°	1851	1919	1979
40°	1788	1886	1956
45°	1730	1849	1935
50°	1663	1815	1912
55°	1589	1781	1893
60°	1515	1753	1889
65°	1419	1723	1901
70°	1314	1732	1952
75°	1176	1764	2062
80°	951	1869	2017
85°	715	1641	1599



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.7	3.3
10°-20°	407.8	9.5
20°-30°	613.0	14.3
30°-40°	730.2	17.0
40°-50°	747.3	17.4
50°-60°	672.8	15.7
60°-70°	528.3	12.3
70°-80°	342.9	8.0
80°-90°	106.1	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°	1163.5	27.1
0°-40°	1893.6	44.1
0°-60°	3313.7	77.2
0°-90°	4291.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4291.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1508	1508	1508	1508	1508	
5°	1501	1503	1497	1505	1506	143
15°	1435	1439	1442	1454	1457	405
25°	1304	1315	1329	1351	1355	601
35°	1127	1141	1168	1197	1205	703
45°	909	931	972	1009	1017	701
55°	677	707	759	799	807	607
65°	446	480	541	586	597	444
75°	226	270	339	386	397	239
85°	46	86	106	104	104	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1507.5	1507.5	1507.5	1507.5	1507.5
2.5°	1508.8	1508.8	1502.0	1508.8	1510.2
5°	1500.6	1503.4	1496.6	1504.7	1506.1
7.5°	1492.5	1492.5	1488.4	1496.6	1497.9
10°	1477.5	1478.8	1477.5	1487.0	1488.4
12.5°	1458.4	1461.1	1462.5	1472.0	1473.4
15°	1435.2	1439.3	1442.0	1454.3	1457.0
17.5°	1409.3	1413.4	1420.2	1433.9	1436.6
20°	1378.0	1383.4	1391.6	1409.3	1413.4
22.5°	1343.9	1349.4	1363.0	1379.3	1386.2
25°	1304.4	1315.3	1328.9	1350.7	1354.8
27.5°	1264.8	1274.4	1292.1	1315.3	1320.7
30°	1218.5	1233.5	1255.3	1278.5	1283.9
32.5°	1173.5	1188.5	1214.4	1238.9	1245.8
35°	1127.2	1140.8	1168.1	1196.7	1204.9
37.5°	1074.0	1091.7	1121.7	1150.4	1158.5
40°	1018.1	1040.0	1074.0	1104.0	1113.6
42.5°	965.0	988.2	1022.2	1054.9	1065.9
45°	909.1	930.9	971.8	1008.6	1016.8
47.5°	851.9	876.4	920.0	956.8	970.4
50°	794.6	820.5	866.9	905.0	913.2
52.5°	737.4	764.6	813.7	854.6	858.7
55°	677.4	707.4	759.2	798.7	806.9
57.5°	622.9	648.8	704.7	745.6	755.1
60°	562.9	591.5	651.5	689.7	701.9
62.5°	505.7	535.7	598.3	636.5	647.4
65°	445.7	479.8	541.1	586.1	597.0
67.5°	393.9	426.6	492.0	535.7	546.6
70°	333.9	370.7	440.2	485.2	496.1
72.5°	282.1	320.3	389.8	433.4	449.8
75°	226.3	269.9	339.4	385.7	396.6
77.5°	171.7	222.2	293.0	328.5	328.5
80°	122.7	175.8	241.2	257.6	260.3
82.5°	80.4	132.2	178.6	177.2	177.2
85°	46.3	85.9	106.3	103.6	103.6
87.5°	17.7	35.4	38.2	38.2	36.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)