

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: P276412

Luminaire Tested: **24CZ2-55HE-S-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P276412
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: 24CZ2-55HE-S-UNV-L93050-W2A1-U-3000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4292.0 lumens
Efficiency: N/A
Efficacy: 104.7 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

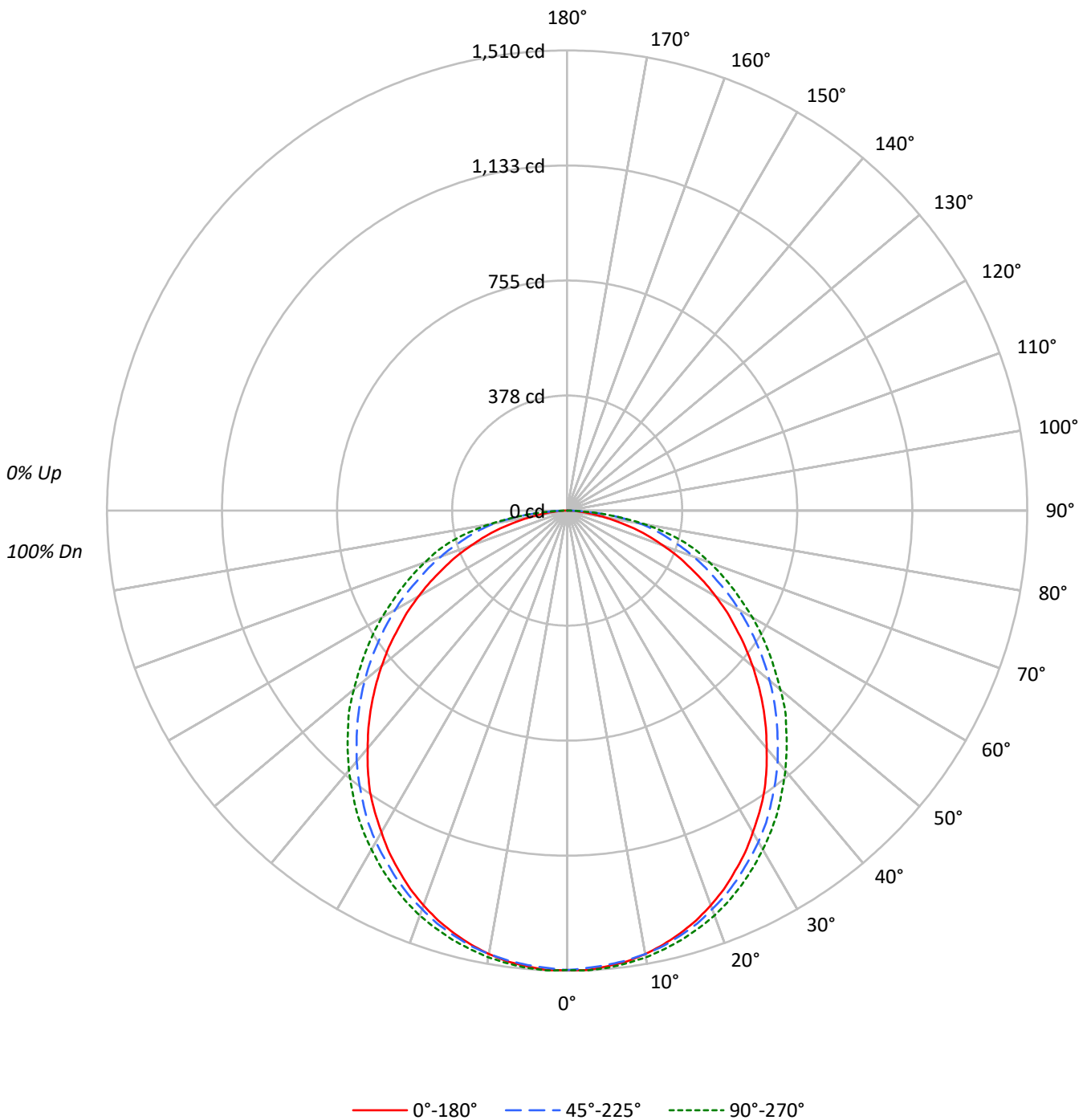
Input Watts (W): 41.004909
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2029	2029	2029
5°	2027	2022	2035
10°	2019	2019	2034
15°	2000	2009	2030
20°	1974	1993	2024
25°	1937	1973	2012
30°	1894	1951	1995
35°	1852	1919	1979
40°	1789	1887	1956
45°	1730	1850	1935
50°	1664	1815	1912
55°	1590	1781	1893
60°	1515	1754	1889
65°	1419	1723	1901
70°	1314	1732	1952
75°	1176	1765	2062
80°	951	1870	2018
85°	716	1641	1599



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.7	3.3
10°-20°	407.9	9.5
20°-30°	613.1	14.3
30°-40°	730.3	17.0
40°-50°	747.5	17.4
50°-60°	672.9	15.7
60°-70°	528.5	12.3
70°-80°	343.0	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°	1163.7	27.1
0°-40°	1894.1	44.1
0°-60°	3314.4	77.2
0°-90°	4292.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4292.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1508	1508	1508	1508	1508	
5°	1501	1504	1497	1505	1506	143
15°	1436	1440	1442	1455	1457	405
25°	1305	1316	1329	1351	1355	601
35°	1127	1141	1168	1197	1205	703
45°	909	931	972	1009	1017	701
55°	678	708	759	799	807	607
65°	446	480	541	586	597	444
75°	226	270	340	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°	1507.8	1507.8	1507.8	1507.8	1507.8
2.5°	1509.2	1509.2	1502.3	1509.2	1510.5
5°	1501.0	1503.7	1496.9	1505.1	1506.4
7.5°	1492.8	1492.8	1488.7	1496.9	1498.3
10°	1477.8	1479.2	1477.8	1487.3	1488.7
12.5°	1458.7	1461.4	1462.8	1472.4	1473.7
15°	1435.5	1439.6	1442.4	1454.6	1457.4
17.5°	1409.6	1413.7	1420.5	1434.2	1436.9
20°	1378.3	1383.7	1391.9	1409.6	1413.7
22.5°	1344.2	1349.7	1363.3	1379.6	1386.5
25°	1304.7	1315.6	1329.2	1351.0	1355.1
27.5°	1265.1	1274.7	1292.4	1315.6	1321.0
30°	1218.8	1233.8	1255.6	1278.8	1284.2
32.5°	1173.8	1188.8	1214.7	1239.2	1246.0
35°	1127.4	1141.1	1168.3	1197.0	1205.1
37.5°	1074.3	1092.0	1122.0	1150.6	1158.8
40°	1018.4	1040.2	1074.3	1104.3	1113.8
42.5°	965.2	988.4	1022.5	1055.2	1066.1
45°	909.3	931.1	972.0	1008.8	1017.0
47.5°	852.1	876.6	920.2	957.0	970.7
50°	794.8	820.7	867.1	905.2	913.4
52.5°	737.5	764.8	813.9	854.8	858.9
55°	677.6	707.5	759.4	798.9	807.1
57.5°	623.0	648.9	704.8	745.7	755.3
60°	563.0	591.7	651.7	689.8	702.1
62.5°	505.8	535.8	598.5	636.7	647.6
65°	445.8	479.9	541.2	586.2	597.1
67.5°	394.0	426.7	492.1	535.8	546.7
70°	334.0	370.8	440.3	485.3	496.2
72.5°	282.2	320.4	389.9	433.5	449.9
75°	226.3	269.9	339.5	385.8	396.7
77.5°	171.8	222.2	293.1	328.6	328.6
80°	122.7	175.9	241.3	257.7	260.4
82.5°	80.4	132.2	178.6	177.2	177.2
85°	46.4	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)