

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: P276649

Luminaire Tested: **24CZ2-55HE-S-UNV-L92765-W2A1-U-5700K**

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: P276649
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-L92765-W2A1-U-5700K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 5700K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5200.6 lumens
Efficiency: N/A
Efficacy: 125.9 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

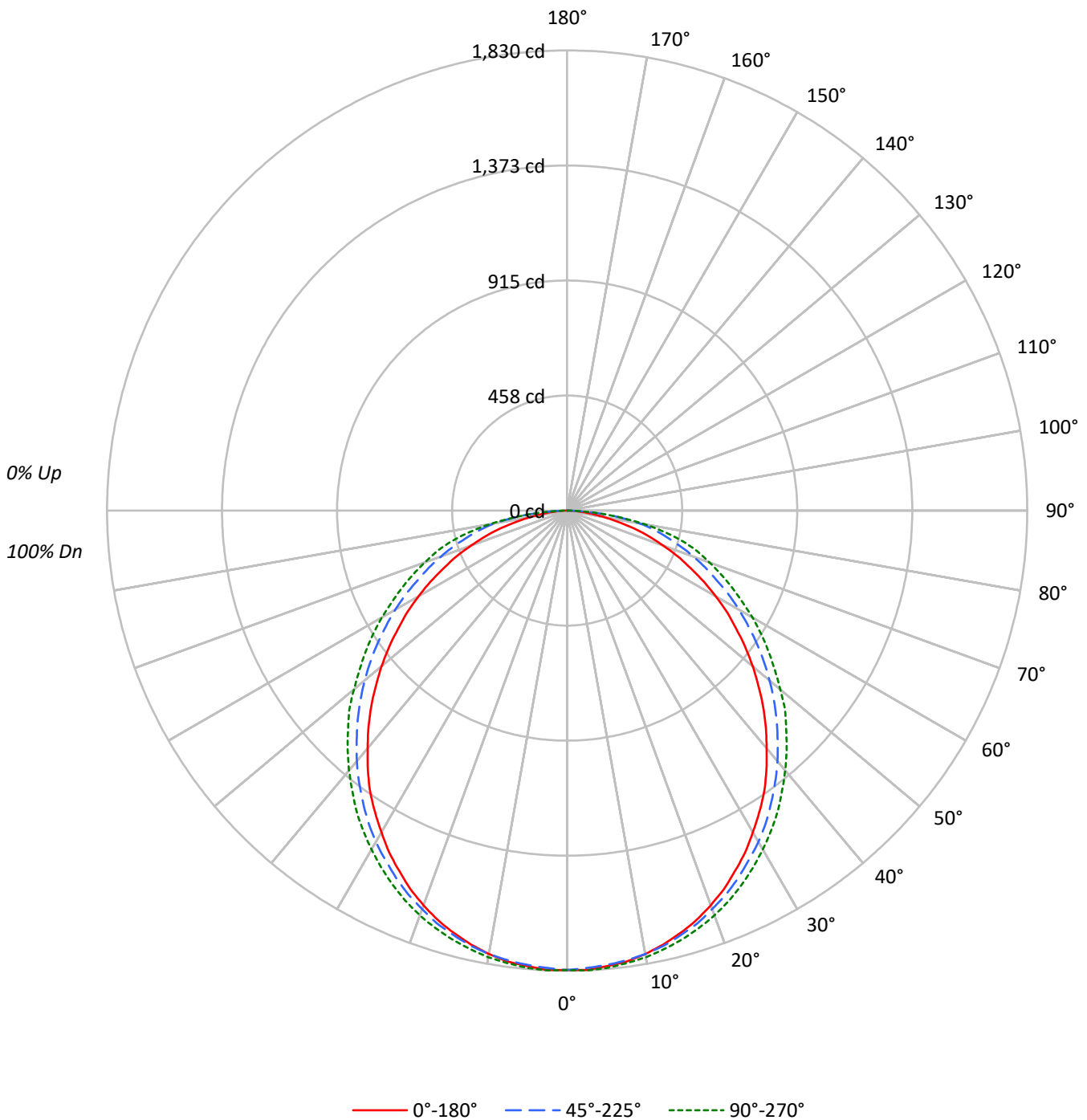
Input Watts (W): 41.292
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69					69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2458	2458	2458
5°	2456	2450	2465
10°	2447	2447	2465
15°	2423	2434	2460
20°	2391	2415	2453
25°	2347	2391	2438
30°	2294	2364	2418
35°	2244	2325	2399
40°	2167	2286	2370
45°	2097	2241	2345
50°	2016	2199	2317
55°	1926	2158	2294
60°	1836	2125	2289
65°	1720	2088	2303
70°	1592	2099	2365
75°	1425	2138	2499
80°	1152	2266	2445
85°	868	1988	1937



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.0	3.3
10°-20°	494.2	9.5
20°-30°	742.9	14.3
30°-40°	884.9	17.0
40°-50°	905.7	17.4
50°-60°	815.4	15.7
60°-70°	640.3	12.3
70°-80°	415.6	8.0
80°-90°	128.5	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°	1410.1	27.1
0°-40°	2295.0	44.1
0°-60°	4016.1	77.2
0°-90°	5200.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5200.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1827	1827	1827	1827	1827	
5°	1819	1822	1814	1824	1825	173
15°	1739	1744	1748	1763	1766	490
25°	1581	1594	1611	1637	1642	728
35°	1366	1383	1416	1450	1460	852
45°	1102	1128	1178	1222	1232	849
55°	821	857	920	968	978	736
65°	540	582	656	710	724	538
75°	274	327	411	468	481	290
85°	56	104	129	126	126	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1827.0	1827.0	1827.0	1827.0	1827.0
2.5°	1828.6	1828.6	1820.4	1828.6	1830.3
5°	1818.7	1822.0	1813.8	1823.7	1825.3
7.5°	1808.8	1808.8	1803.9	1813.8	1815.4
10°	1790.7	1792.3	1790.7	1802.2	1803.9
12.5°	1767.5	1770.8	1772.5	1784.0	1785.7
15°	1739.4	1744.4	1747.7	1762.6	1765.9
17.5°	1708.1	1713.0	1721.3	1737.8	1741.1
20°	1670.1	1676.7	1686.6	1708.1	1713.0
22.5°	1628.8	1635.4	1651.9	1671.7	1680.0
25°	1580.9	1594.1	1610.6	1637.0	1642.0
27.5°	1533.0	1544.5	1566.0	1594.1	1600.7
30°	1476.8	1495.0	1521.4	1549.5	1556.1
32.5°	1422.3	1440.5	1471.8	1501.6	1509.8
35°	1366.1	1382.6	1415.7	1450.4	1460.3
37.5°	1301.7	1323.2	1359.5	1394.2	1404.1
40°	1234.0	1260.4	1301.7	1338.0	1349.6
42.5°	1169.5	1197.6	1238.9	1278.6	1291.8
45°	1101.8	1128.2	1177.8	1222.4	1232.3
47.5°	1032.4	1062.2	1115.0	1159.6	1176.2
50°	963.1	994.4	1050.6	1096.9	1106.8
52.5°	893.7	926.7	986.2	1035.7	1040.7
55°	821.0	857.3	920.1	968.0	977.9
57.5°	754.9	786.3	854.0	903.6	915.2
60°	682.2	716.9	789.6	835.9	850.7
62.5°	612.9	649.2	725.2	771.4	784.7
65°	540.2	581.5	655.8	710.3	723.5
67.5°	477.4	517.0	596.3	649.2	662.4
70°	404.7	449.3	533.6	588.1	601.3
72.5°	341.9	388.2	472.4	525.3	545.1
75°	274.2	327.1	411.3	467.5	480.7
77.5°	208.1	269.3	355.2	398.1	398.1
80°	148.7	213.1	292.4	312.2	315.5
82.5°	97.5	160.2	216.4	214.7	214.7
85°	56.2	104.1	128.8	125.5	125.5
87.5°	21.5	42.9	46.3	46.3	44.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)