

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: P276648

Luminaire Tested: **24CZ2-55HE-S-UNV-L92765-W2A1-U-5500K**

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: P276648
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-5500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5178.7 lumens
Efficiency: N/A
Efficacy: 125.7 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

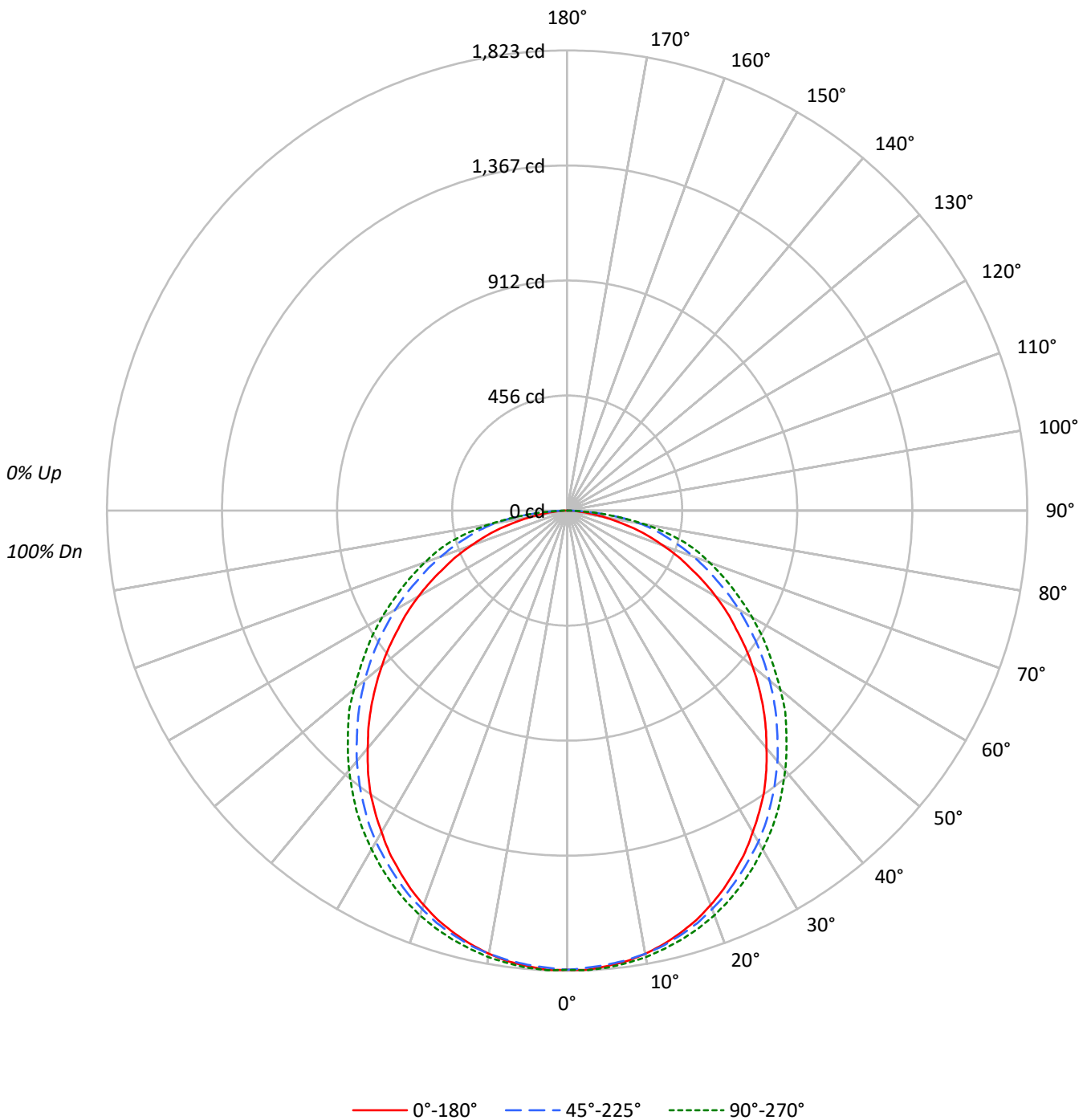
Input Watts (W): 41.199
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2448	2448	2448
5°	2446	2440	2455
10°	2436	2436	2454
15°	2413	2424	2450
20°	2381	2405	2442
25°	2337	2381	2427
30°	2285	2354	2407
35°	2235	2315	2388
40°	2158	2277	2360
45°	2088	2232	2335
50°	2007	2190	2307
55°	1918	2149	2284
60°	1828	2116	2280
65°	1713	2079	2294
70°	1585	2090	2356
75°	1420	2129	2489
80°	1147	2256	2435
85°	863	1981	1930



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.2	3.3
10°-20°	492.1	9.5
20°-30°	739.8	14.3
30°-40°	881.2	17.0
40°-50°	901.9	17.4
50°-60°	811.9	15.7
60°-70°	637.6	12.3
70°-80°	413.8	8.0
80°-90°	128.0	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°	1404.2	27.1
0°-40°	2285.4	44.1
0°-60°	3999.2	77.2
0°-90°	5178.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5178.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1819	1819	1819	1819	1819	
5°	1811	1814	1806	1816	1818	172
15°	1732	1737	1740	1755	1758	488
25°	1574	1587	1604	1630	1635	725
35°	1360	1377	1410	1444	1454	849
45°	1097	1124	1173	1217	1227	846
55°	818	854	916	964	974	733
65°	538	579	653	707	720	535
75°	273	326	410	466	479	289
85°	56	104	128	125	125	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1819.3	1819.3	1819.3	1819.3	1819.3
2.5°	1821.0	1821.0	1812.7	1821.0	1822.6
5°	1811.1	1814.4	1806.2	1816.0	1817.7
7.5°	1801.2	1801.2	1796.3	1806.2	1807.8
10°	1783.1	1784.8	1783.1	1794.6	1796.3
12.5°	1760.1	1763.4	1765.0	1776.5	1778.2
15°	1732.1	1737.1	1740.4	1755.2	1758.5
17.5°	1700.9	1705.8	1714.0	1730.5	1733.8
20°	1663.0	1669.6	1679.5	1700.9	1705.8
22.5°	1621.9	1628.5	1645.0	1664.7	1672.9
25°	1574.2	1587.4	1603.8	1630.1	1635.1
27.5°	1526.5	1538.0	1559.4	1587.4	1594.0
30°	1470.6	1488.7	1515.0	1543.0	1549.5
32.5°	1416.3	1434.4	1465.7	1495.3	1503.5
35°	1360.4	1376.8	1409.7	1444.3	1454.1
37.5°	1296.2	1317.6	1353.8	1388.3	1398.2
40°	1228.8	1255.1	1296.2	1332.4	1343.9
42.5°	1164.6	1192.6	1233.7	1273.2	1286.4
45°	1097.2	1123.5	1172.8	1217.3	1227.1
47.5°	1028.1	1057.7	1110.3	1154.8	1171.2
50°	959.0	990.3	1046.2	1092.2	1102.1
52.5°	889.9	922.8	982.0	1031.4	1036.3
55°	817.5	853.7	916.2	963.9	973.8
57.5°	751.7	783.0	850.4	899.8	911.3
60°	679.4	713.9	786.3	832.3	847.1
62.5°	610.3	646.5	722.1	768.2	781.4
65°	537.9	579.0	653.0	707.3	720.5
67.5°	475.4	514.9	593.8	646.5	659.6
70°	403.0	447.4	531.3	585.6	598.8
72.5°	340.5	386.6	470.5	523.1	542.8
75°	273.1	325.7	409.6	465.5	478.7
77.5°	207.3	268.1	353.7	396.4	396.4
80°	148.0	212.2	291.2	310.9	314.2
82.5°	97.1	159.6	215.5	213.8	213.8
85°	55.9	103.6	128.3	125.0	125.0
87.5°	21.4	42.8	46.1	46.1	44.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)