

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: P276647

Luminaire Tested: **24CZ2-55HE-S-UNV-L92765-W2A1-U-5000K**

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: P276647
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-5000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5099.2 lumens
Efficiency: N/A
Efficacy: 124.3 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

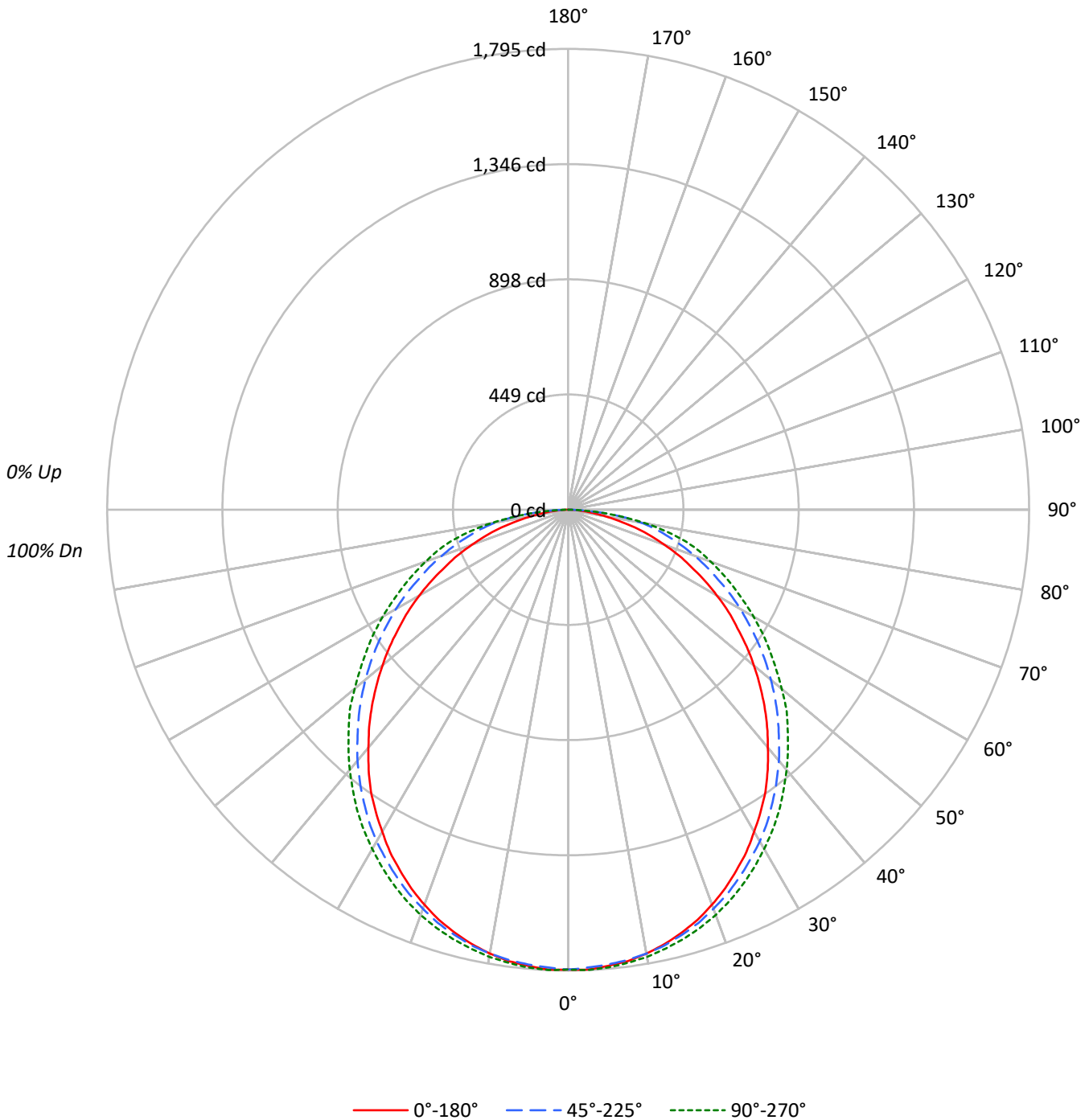
Input Watts (W): 41.013
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2410	2410	2410
5°	2409	2402	2417
10°	2399	2399	2416
15°	2376	2387	2412
20°	2345	2368	2405
25°	2301	2344	2390
30°	2250	2318	2370
35°	2200	2280	2352
40°	2125	2242	2324
45°	2056	2197	2299
50°	1977	2156	2272
55°	1888	2116	2249
60°	1800	2083	2245
65°	1686	2047	2259
70°	1561	2058	2319
75°	1398	2097	2450
80°	1130	2221	2397
85°	851	1950	1900



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.6	3.3
10°-20°	484.6	9.5
20°-30°	728.4	14.3
30°-40°	867.7	17.0
40°-50°	888.0	17.4
50°-60°	799.5	15.7
60°-70°	627.9	12.3
70°-80°	407.5	8.0
80°-90°	126.0	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°	1382.6	27.1
0°-40°	2250.3	44.1
0°-60°	3937.8	77.2
0°-90°	5099.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5099.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1791	1791	1791	1791	1791	
5°	1783	1786	1778	1788	1790	169
15°	1706	1710	1714	1728	1732	481
25°	1550	1563	1579	1605	1610	714
35°	1340	1356	1388	1422	1432	836
45°	1080	1106	1155	1199	1208	833
55°	805	841	902	949	959	722
65°	530	570	643	696	709	527
75°	269	321	403	458	471	285
85°	55	102	126	123	123	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1791.4	1791.4	1791.4	1791.4	1791.4
2.5°	1793.0	1793.0	1784.9	1793.0	1794.6
5°	1783.3	1786.5	1778.4	1788.1	1789.8
7.5°	1773.6	1773.6	1768.7	1778.4	1780.0
10°	1755.7	1757.4	1755.7	1767.1	1768.7
12.5°	1733.1	1736.3	1737.9	1749.3	1750.9
15°	1705.5	1710.4	1713.6	1728.2	1731.5
17.5°	1674.8	1679.6	1687.7	1703.9	1707.2
20°	1637.5	1644.0	1653.7	1674.8	1679.6
22.5°	1597.0	1603.5	1619.7	1639.1	1647.2
25°	1550.0	1563.0	1579.2	1605.1	1610.0
27.5°	1503.1	1514.4	1535.5	1563.0	1569.5
30°	1448.0	1465.8	1491.7	1519.3	1525.7
32.5°	1394.6	1412.4	1443.1	1472.3	1480.4
35°	1339.5	1355.7	1388.1	1422.1	1431.8
37.5°	1276.3	1297.4	1333.0	1367.0	1376.7
40°	1209.9	1235.8	1276.3	1312.0	1323.3
42.5°	1146.7	1174.3	1214.8	1253.6	1266.6
45°	1080.3	1106.2	1154.8	1198.6	1208.3
47.5°	1012.3	1041.5	1093.3	1137.0	1153.2
50°	944.3	975.1	1030.1	1075.5	1085.2
52.5°	876.3	908.6	967.0	1015.5	1020.4
55°	805.0	840.6	902.2	949.1	958.9
57.5°	740.2	771.0	837.4	886.0	897.3
60°	668.9	702.9	774.2	819.6	834.1
62.5°	600.9	636.5	711.0	756.4	769.4
65°	529.6	570.1	643.0	696.5	709.4
67.5°	468.1	507.0	584.7	636.5	649.5
70°	396.8	440.6	523.2	576.6	589.6
72.5°	335.3	380.6	463.2	515.1	534.5
75°	268.9	320.7	403.3	458.4	471.3
77.5°	204.1	264.0	348.2	390.3	390.3
80°	145.8	208.9	286.7	306.1	309.4
82.5°	95.6	157.1	212.2	210.6	210.6
85°	55.1	102.0	126.3	123.1	123.1
87.5°	21.1	42.1	45.4	45.4	43.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)