

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: P276650

Luminaire Tested: **24CZ2-55HE-S-UNV-L92765-W2A1-U-6500K**

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: P276650
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-6500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 6500K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5235.4 lumens
Efficiency: N/A
Efficacy: 124.8 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

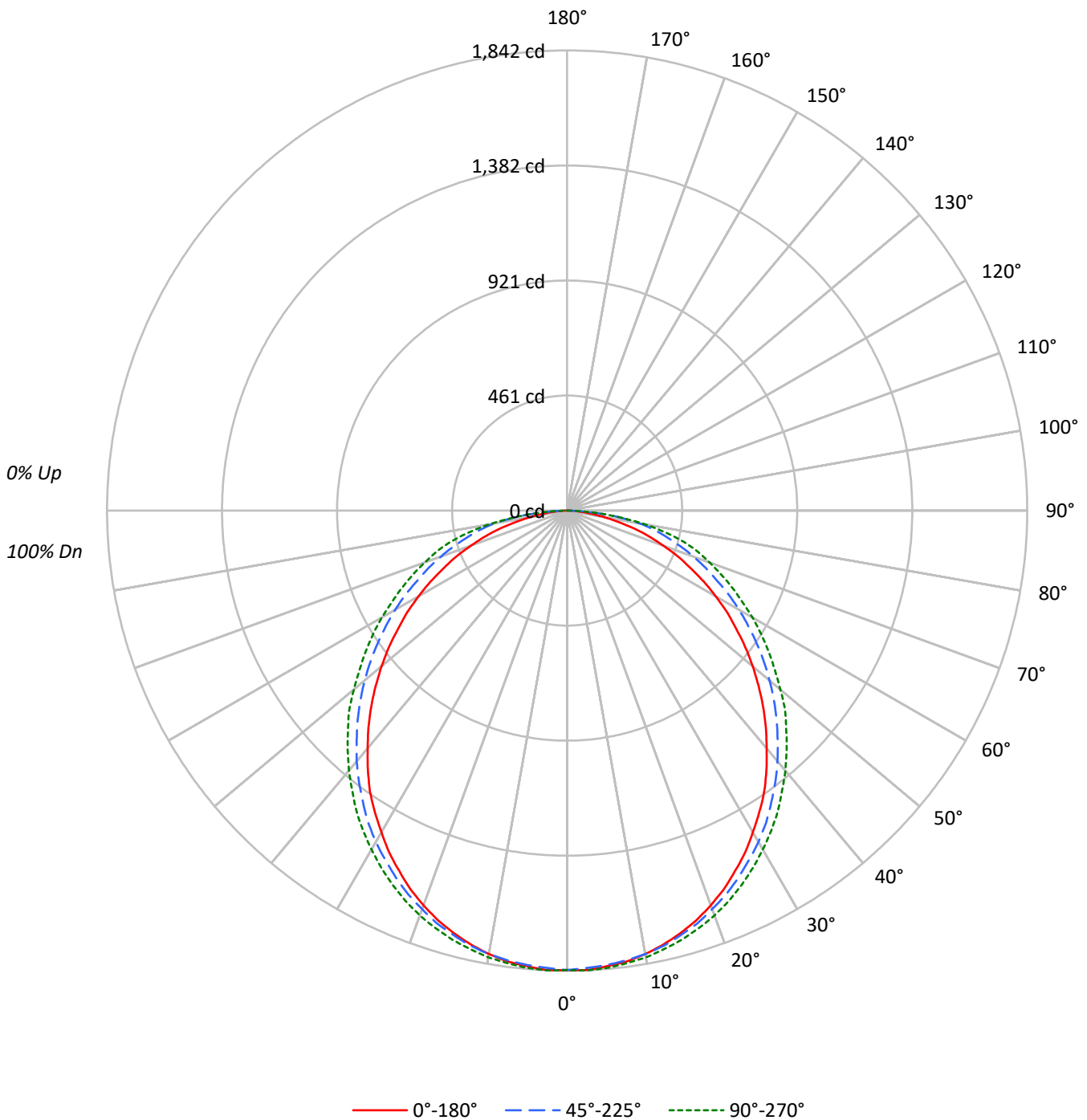
Input Watts (W): 41.943
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2475	2475	2475
5°	2473	2466	2482
10°	2463	2463	2481
15°	2439	2451	2476
20°	2407	2431	2469
25°	2363	2407	2454
30°	2310	2380	2434
35°	2259	2341	2415
40°	2182	2302	2386
45°	2111	2256	2361
50°	2029	2214	2332
55°	1939	2173	2309
60°	1848	2139	2305
65°	1731	2102	2319
70°	1603	2113	2381
75°	1435	2153	2516
80°	1160	2280	2461
85°	872	2002	1951



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.1	3.3
10°-20°	497.5	9.5
20°-30°	747.9	14.3
30°-40°	890.9	17.0
40°-50°	911.7	17.4
50°-60°	820.9	15.7
60°-70°	644.6	12.3
70°-80°	418.4	8.0
80°-90°	129.4	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°	1419.5	27.1
0°-40°	2310.4	44.1
0°-60°	4043.0	77.2
0°-90°	5235.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5235.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1839	1839	1839	1839	1839	
5°	1831	1834	1826	1836	1838	174
15°	1751	1756	1759	1774	1778	494
25°	1591	1605	1621	1648	1653	733
35°	1375	1392	1425	1460	1470	858
45°	1109	1136	1186	1231	1241	855
55°	826	863	926	974	984	741
65°	544	585	660	715	728	541
75°	276	329	414	471	484	292
85°	56	105	130	126	126	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1839.2	1839.2	1839.2	1839.2	1839.2
2.5°	1840.9	1840.9	1832.6	1840.9	1842.5
5°	1830.9	1834.2	1825.9	1835.9	1837.6
7.5°	1820.9	1820.9	1815.9	1825.9	1827.6
10°	1802.6	1804.3	1802.6	1814.3	1815.9
12.5°	1779.4	1782.7	1784.3	1796.0	1797.6
15°	1751.1	1756.1	1759.4	1774.4	1777.7
17.5°	1719.5	1724.5	1732.8	1749.4	1752.7
20°	1681.2	1687.9	1697.9	1719.5	1724.5
22.5°	1639.7	1646.3	1662.9	1682.9	1691.2
25°	1591.4	1604.7	1621.4	1648.0	1653.0
27.5°	1543.2	1554.9	1576.5	1604.7	1611.4
30°	1486.7	1505.0	1531.6	1559.8	1566.5
32.5°	1431.8	1450.1	1481.7	1511.6	1519.9
35°	1375.3	1391.9	1425.1	1460.1	1470.0
37.5°	1310.4	1332.0	1368.6	1403.5	1413.5
40°	1242.2	1268.8	1310.4	1347.0	1358.6
42.5°	1177.4	1205.6	1247.2	1287.1	1300.4
45°	1109.2	1135.8	1185.7	1230.6	1240.6
47.5°	1039.3	1069.3	1122.5	1167.4	1184.0
50°	969.5	1001.1	1057.6	1104.2	1114.2
52.5°	899.7	932.9	992.8	1042.7	1047.7
55°	826.5	863.1	926.3	974.5	984.5
57.5°	760.0	791.6	859.7	909.6	921.3
60°	686.8	721.7	794.9	841.5	856.4
62.5°	617.0	653.5	730.0	776.6	789.9
65°	543.8	585.4	660.2	715.1	728.4
67.5°	480.6	520.5	600.3	653.5	666.8
70°	407.4	452.3	537.1	592.0	605.3
72.5°	344.2	390.8	475.6	528.8	548.8
75°	276.0	329.3	414.1	470.6	483.9
77.5°	209.5	271.1	357.5	400.8	400.8
80°	149.7	214.5	294.3	314.3	317.6
82.5°	98.1	161.3	217.8	216.2	216.2
85°	56.5	104.8	129.7	126.4	126.4
87.5°	21.6	43.2	46.6	46.6	44.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)