

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: P276334

Luminaire Tested: **24CZ2-50HE-S-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276334
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: 24CZ2-50HE-S-UNV-L83050-W2A1-U-4000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 80 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5246.0 lumens
Efficiency: N/A
Efficacy: 143.6 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

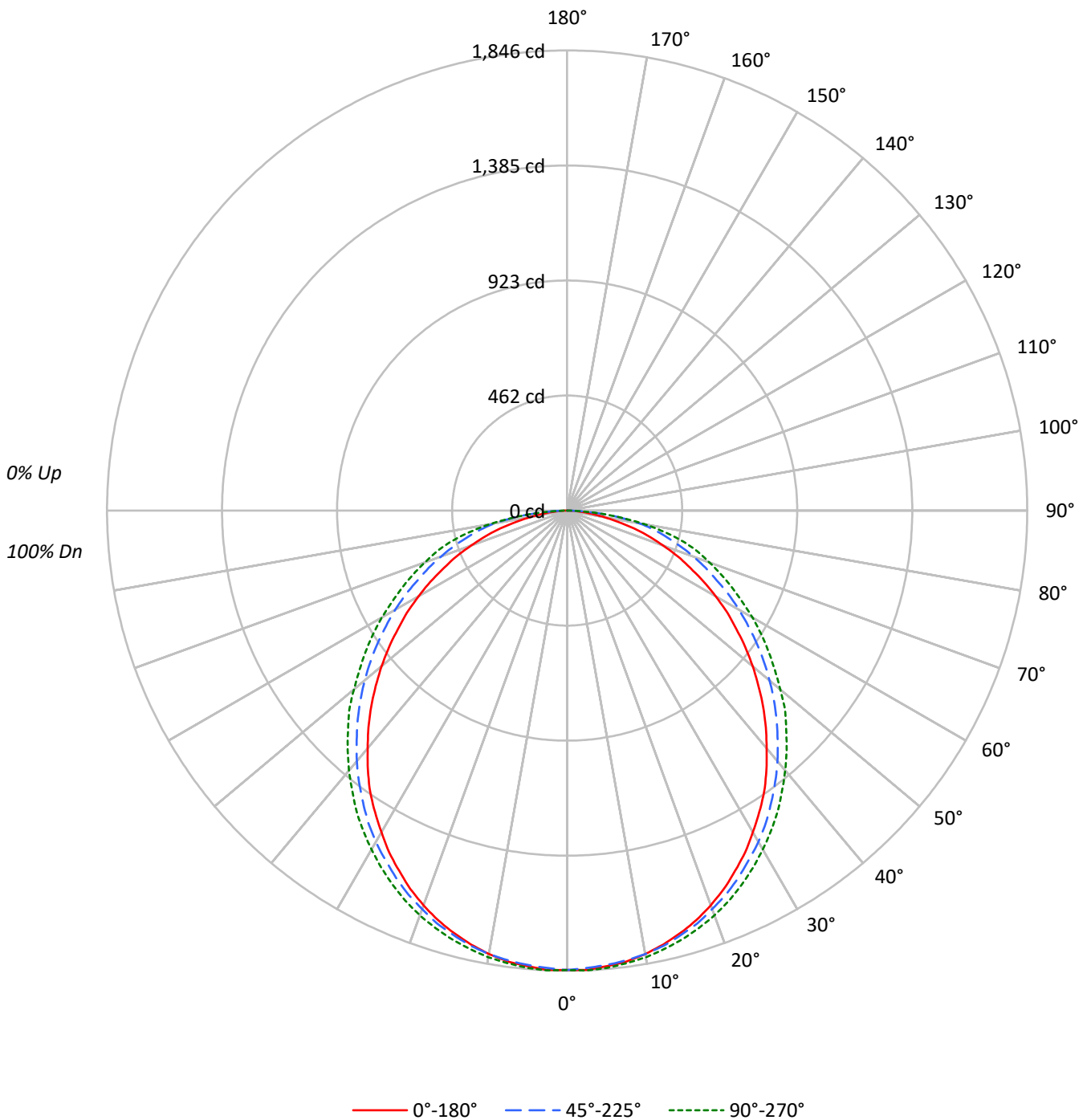
Input Watts (W): 36.533376
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2480	2480	2480
5°	2478	2471	2487
10°	2468	2468	2486
15°	2444	2456	2481
20°	2412	2436	2474
25°	2367	2412	2459
30°	2314	2384	2439
35°	2263	2346	2419
40°	2186	2306	2391
45°	2115	2261	2365
50°	2034	2218	2337
55°	1943	2177	2314
60°	1852	2143	2309
65°	1735	2106	2323
70°	1606	2117	2386
75°	1438	2157	2521
80°	1162	2285	2466
85°	875	2007	1954



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.5	3.3
10°-20°	498.5	9.5
20°-30°	749.4	14.3
30°-40°	892.7	17.0
40°-50°	913.6	17.4
50°-60°	822.5	15.7
60°-70°	645.9	12.3
70°-80°	419.2	8.0
80°-90°	129.7	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°	1422.4	27.1
0°-40°	2315.1	44.1
0°-60°	4051.2	77.2
0°-90°	5246.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5246.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1843	1843	1843	1843	1843	
5°	1835	1838	1830	1840	1841	174
15°	1755	1760	1763	1778	1781	495
25°	1595	1608	1625	1651	1656	735
35°	1378	1395	1428	1463	1473	860
45°	1111	1138	1188	1233	1243	857
55°	828	865	928	976	986	742
65°	545	586	662	716	730	542
75°	277	330	415	472	485	293
85°	57	105	130	127	127	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1843.0	1843.0	1843.0	1843.0	1843.0
2.5°	1844.6	1844.6	1836.3	1844.6	1846.3
5°	1834.6	1838.0	1829.6	1839.6	1841.3
7.5°	1824.6	1824.6	1819.6	1829.6	1831.3
10°	1806.3	1808.0	1806.3	1818.0	1819.6
12.5°	1783.0	1786.3	1788.0	1799.6	1801.3
15°	1754.6	1759.6	1763.0	1778.0	1781.3
17.5°	1723.0	1728.0	1736.3	1753.0	1756.3
20°	1684.7	1691.3	1701.3	1723.0	1728.0
22.5°	1643.0	1649.7	1666.3	1686.3	1694.7
25°	1594.7	1608.0	1624.7	1651.3	1656.3
27.5°	1546.3	1558.0	1579.7	1608.0	1614.7
30°	1489.7	1508.0	1534.7	1563.0	1569.7
32.5°	1434.7	1453.0	1484.7	1514.7	1523.0
35°	1378.0	1394.7	1428.0	1463.0	1473.0
37.5°	1313.1	1334.7	1371.4	1406.4	1416.4
40°	1244.7	1271.4	1313.1	1349.7	1361.4
42.5°	1179.8	1208.1	1249.7	1289.7	1303.1
45°	1111.4	1138.1	1188.1	1233.1	1243.1
47.5°	1041.5	1071.4	1124.8	1169.8	1186.4
50°	971.5	1003.1	1059.8	1106.4	1116.4
52.5°	901.5	934.8	994.8	1044.8	1049.8
55°	828.2	864.8	928.1	976.5	986.5
57.5°	761.5	793.2	861.5	911.5	923.1
60°	688.2	723.2	796.5	843.2	858.2
62.5°	618.2	654.9	731.5	778.2	791.5
65°	544.9	586.5	661.5	716.5	729.8
67.5°	481.6	521.6	601.5	654.9	668.2
70°	408.2	453.2	538.2	593.2	606.5
72.5°	344.9	391.6	476.6	529.9	549.9
75°	276.6	329.9	414.9	471.6	484.9
77.5°	210.0	271.6	358.3	401.6	401.6
80°	150.0	215.0	294.9	314.9	318.3
82.5°	98.3	161.6	218.3	216.6	216.6
85°	56.7	105.0	130.0	126.6	126.6
87.5°	21.7	43.3	46.7	46.7	45.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)