

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: P276663

Luminaire Tested: **24CZ2-65HE-S-UNV-L92765-W2A1-U-4000K**

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: P276663
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: 24CZ2-65HE-S-UNV-L92765-W2A1-U-4000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5738.3 lumens
Efficiency: N/A
Efficacy: 116.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

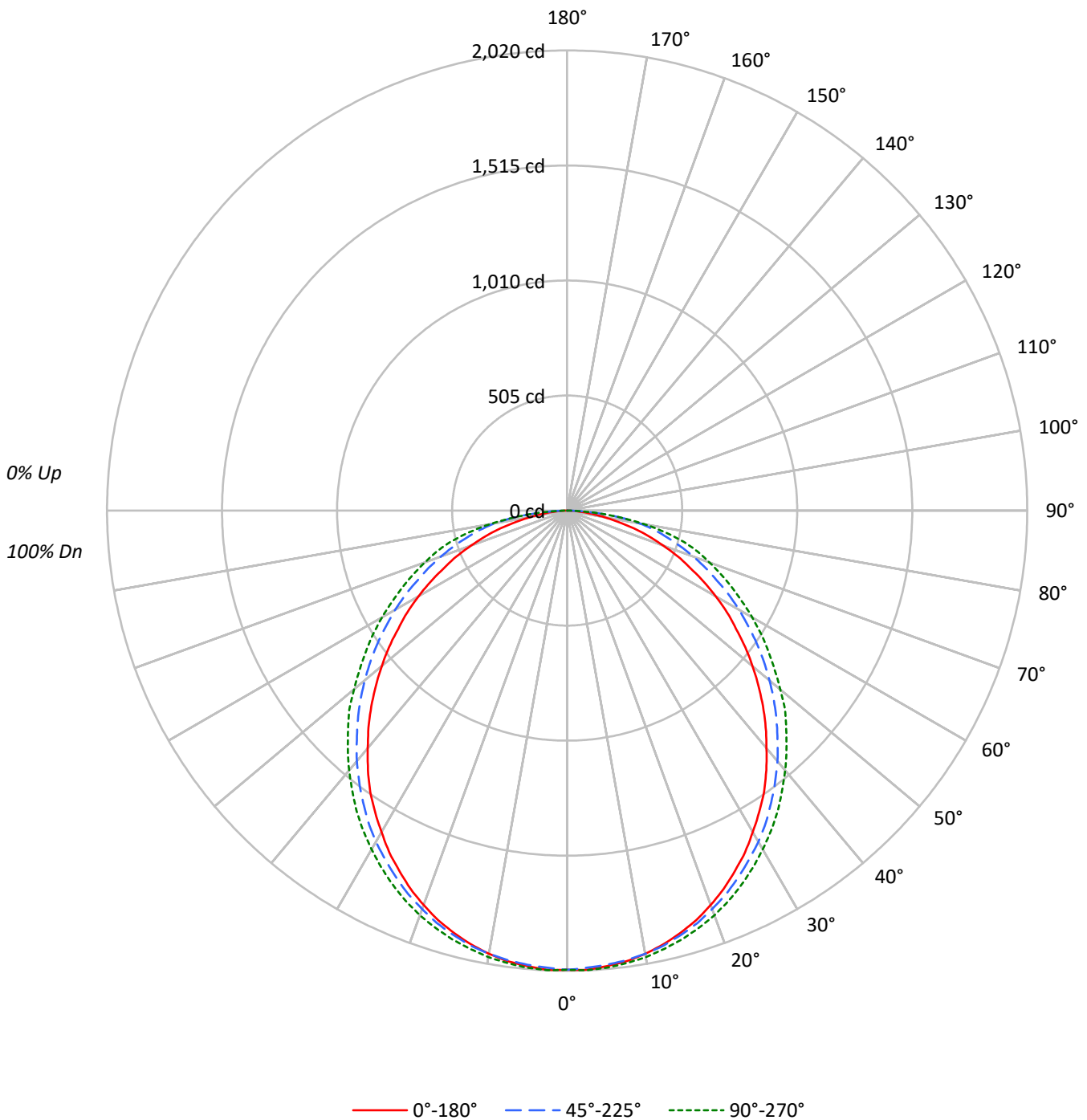
Input Watts (W): 49.476
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2712	2712	2712
5°	2710	2703	2720
10°	2699	2699	2719
15°	2673	2686	2714
20°	2639	2665	2706
25°	2590	2638	2690
30°	2532	2608	2668
35°	2476	2566	2647
40°	2392	2523	2616
45°	2313	2473	2587
50°	2224	2426	2556
55°	2125	2381	2531
60°	2026	2345	2526
65°	1897	2304	2542
70°	1757	2316	2610
75°	1573	2360	2757
80°	1271	2500	2697
85°	957	2195	2138



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.8	3.3
10°-20°	545.3	9.5
20°-30°	819.7	14.3
30°-40°	976.4	17.0
40°-50°	999.3	17.4
50°-60°	899.7	15.7
60°-70°	706.6	12.3
70°-80°	458.6	8.0
80°-90°	141.8	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°	1555.9	27.1
0°-40°	2532.3	44.1
0°-60°	4431.4	77.2
0°-90°	5738.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5738.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2016	2016	2016	2016	2016	
5°	2007	2010	2001	2012	2014	191
15°	1919	1925	1928	1945	1948	541
25°	1744	1759	1777	1806	1812	804
35°	1507	1526	1562	1600	1611	940
45°	1216	1245	1300	1349	1360	937
55°	906	946	1015	1068	1079	812
65°	596	642	724	784	798	593
75°	303	361	454	516	530	320
85°	62	115	142	138	138	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2015.9	2015.9	2015.9	2015.9	2015.9
2.5°	2017.7	2017.7	2008.6	2017.7	2019.6
5°	2006.8	2010.4	2001.3	2012.3	2014.1
7.5°	1995.9	1995.9	1990.4	2001.3	2003.2
10°	1975.8	1977.6	1975.8	1988.6	1990.4
12.5°	1950.3	1953.9	1955.8	1968.5	1970.3
15°	1919.3	1924.8	1928.4	1944.8	1948.5
17.5°	1884.7	1890.1	1899.3	1917.5	1921.1
20°	1842.8	1850.0	1861.0	1884.7	1890.1
22.5°	1797.2	1804.5	1822.7	1844.6	1853.7
25°	1744.3	1758.9	1777.1	1806.3	1811.8
27.5°	1691.5	1704.2	1727.9	1758.9	1766.2
30°	1629.5	1649.5	1678.7	1709.7	1717.0
32.5°	1569.3	1589.4	1624.0	1656.8	1666.0
35°	1507.4	1525.6	1562.1	1600.3	1611.3
37.5°	1436.3	1460.0	1500.1	1538.4	1549.3
40°	1361.6	1390.7	1436.3	1476.4	1489.2
42.5°	1290.5	1321.5	1367.0	1410.8	1425.4
45°	1215.7	1244.9	1299.6	1348.8	1359.7
47.5°	1139.2	1172.0	1230.3	1279.5	1297.8
50°	1062.6	1097.3	1159.2	1210.3	1221.2
52.5°	986.1	1022.5	1088.2	1142.8	1148.3
55°	905.9	946.0	1015.2	1068.1	1079.0
57.5°	833.0	867.6	942.3	997.0	1009.8
60°	752.8	791.1	871.3	922.3	938.7
62.5°	676.2	716.3	800.2	851.2	865.8
65°	596.0	641.6	723.6	783.8	798.3
67.5°	526.8	570.5	658.0	716.3	730.9
70°	446.6	495.8	588.7	648.9	663.5
72.5°	377.3	428.3	521.3	579.6	601.5
75°	302.6	360.9	453.9	515.8	530.4
77.5°	229.7	297.1	391.9	439.3	439.3
80°	164.0	235.1	322.6	344.5	348.1
82.5°	107.5	176.8	238.8	237.0	237.0
85°	62.0	114.8	142.2	138.5	138.5
87.5°	23.7	47.4	51.0	51.0	49.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)