

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: P276668

Luminaire Tested: **24CZ2-65HE-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: P276668
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-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: 6165.7 lumens
Efficiency: N/A
Efficacy: 120.3 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

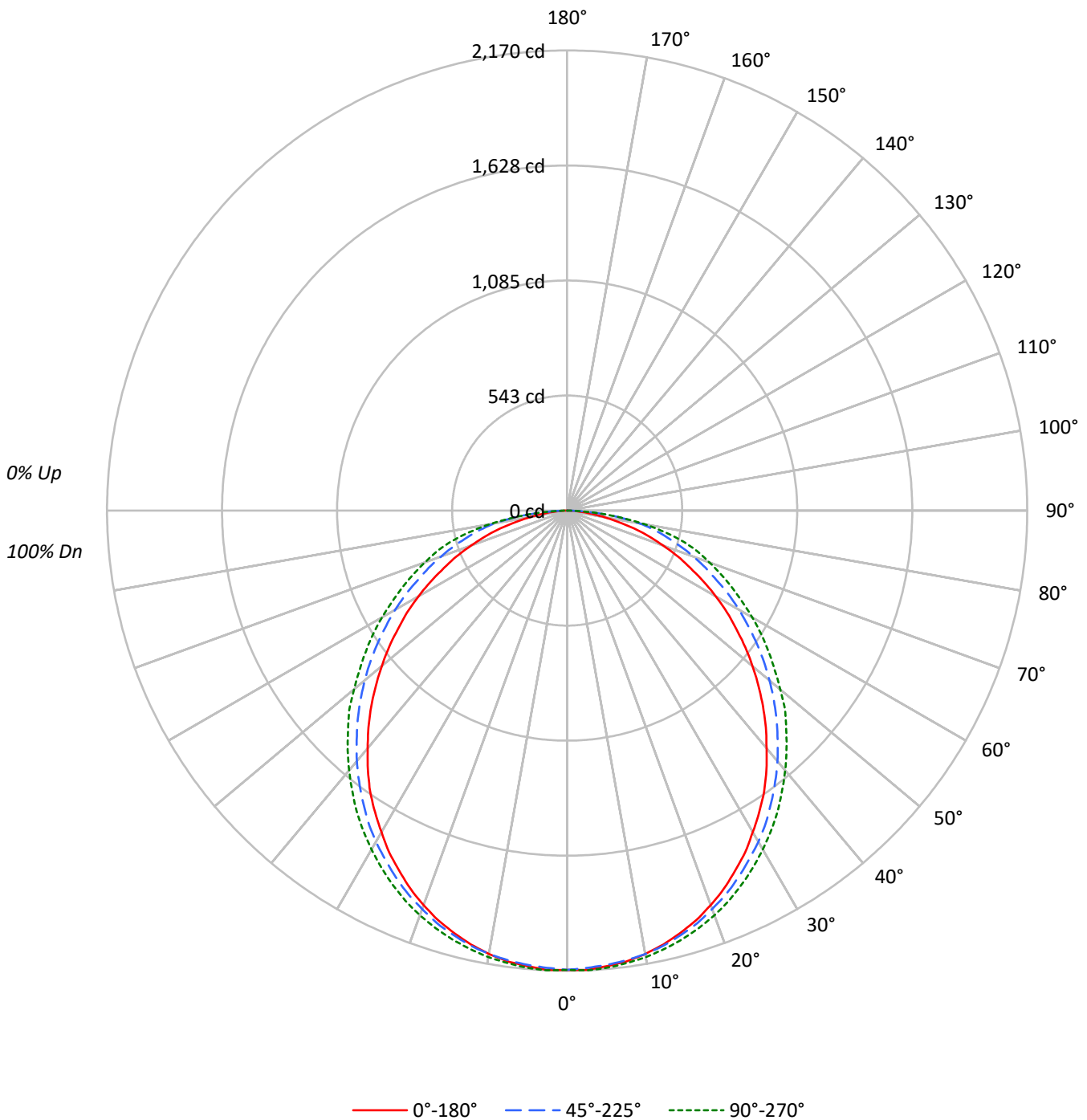
Input Watts (W): 51.243
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2914	2914	2914
5°	2912	2904	2923
10°	2901	2901	2922
15°	2873	2886	2916
20°	2835	2863	2908
25°	2783	2835	2890
30°	2720	2802	2866
35°	2660	2757	2844
40°	2570	2711	2810
45°	2486	2657	2780
50°	2390	2607	2747
55°	2283	2559	2720
60°	2176	2519	2714
65°	2039	2475	2731
70°	1888	2489	2805
75°	1690	2535	2963
80°	1366	2686	2899
85°	1028	2359	2297



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.1	3.3
10°-20°	585.9	9.5
20°-30°	880.8	14.3
30°-40°	1049.2	17.0
40°-50°	1073.8	17.4
50°-60°	966.7	15.7
60°-70°	759.2	12.3
70°-80°	492.7	8.0
80°-90°	152.4	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°	1671.8	27.1
0°-40°	2721.0	44.1
0°-60°	4761.5	77.2
0°-90°	6165.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6165.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2166	2166	2166	2166	2166	
5°	2156	2160	2150	2162	2164	205
15°	2062	2068	2072	2090	2094	582
25°	1874	1890	1910	1941	1947	863
35°	1620	1639	1678	1720	1731	1010
45°	1306	1338	1396	1449	1461	1007
55°	973	1016	1091	1148	1159	873
65°	640	689	778	842	858	638
75°	325	388	488	554	570	344
85°	67	123	153	149	149	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2166.1	2166.1	2166.1	2166.1	2166.1
2.5°	2168.0	2168.0	2158.2	2168.0	2170.0
5°	2156.3	2160.2	2150.4	2162.2	2164.1
7.5°	2144.5	2144.5	2138.6	2150.4	2152.4
10°	2123.0	2124.9	2123.0	2136.7	2138.6
12.5°	2095.6	2099.5	2101.4	2115.1	2117.1
15°	2062.3	2068.1	2072.1	2089.7	2093.6
17.5°	2025.1	2030.9	2040.7	2060.3	2064.2
20°	1980.0	1987.8	1999.6	2025.1	2030.9
22.5°	1931.1	1938.9	1958.5	1982.0	1991.8
25°	1874.3	1889.9	1909.5	1940.8	1946.7
27.5°	1817.5	1831.2	1856.6	1889.9	1897.8
30°	1750.9	1772.4	1803.8	1837.0	1844.9
32.5°	1686.2	1707.8	1745.0	1780.2	1790.0
35°	1619.7	1639.2	1678.4	1719.5	1731.3
37.5°	1543.3	1568.7	1611.8	1652.9	1664.7
40°	1463.0	1494.3	1543.3	1586.4	1600.1
42.5°	1386.6	1419.9	1468.9	1515.9	1531.5
45°	1306.3	1337.6	1396.4	1449.3	1461.0
47.5°	1224.0	1259.3	1322.0	1374.8	1394.4
50°	1141.8	1179.0	1245.6	1300.4	1312.2
52.5°	1059.5	1098.7	1169.2	1228.0	1233.8
55°	973.4	1016.4	1090.9	1147.7	1159.4
57.5°	895.0	932.2	1012.5	1071.3	1085.0
60°	808.8	850.0	936.1	991.0	1008.6
62.5°	726.6	769.7	859.8	914.6	930.3
65°	640.4	689.4	777.5	842.1	857.8
67.5°	566.0	613.0	707.0	769.7	785.3
70°	479.8	532.7	632.6	697.2	712.9
72.5°	405.4	460.2	560.1	622.8	646.3
75°	325.1	387.8	487.7	554.2	569.9
77.5°	246.8	319.2	421.1	472.0	472.0
80°	176.3	252.6	346.6	370.2	374.1
82.5°	115.5	190.0	256.6	254.6	254.6
85°	66.6	123.4	152.8	148.8	148.8
87.5°	25.5	50.9	54.8	54.8	52.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)