

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: P276679

Luminaire Tested: **24CZ2-75HE-S-UNV-L92765-W2A1-U-3000K**

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: P276679
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: 24CZ2-75HE-S-UNV-L92765-W2A1-U-3000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6105.1 lumens
Efficiency: N/A
Efficacy: 105.5 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

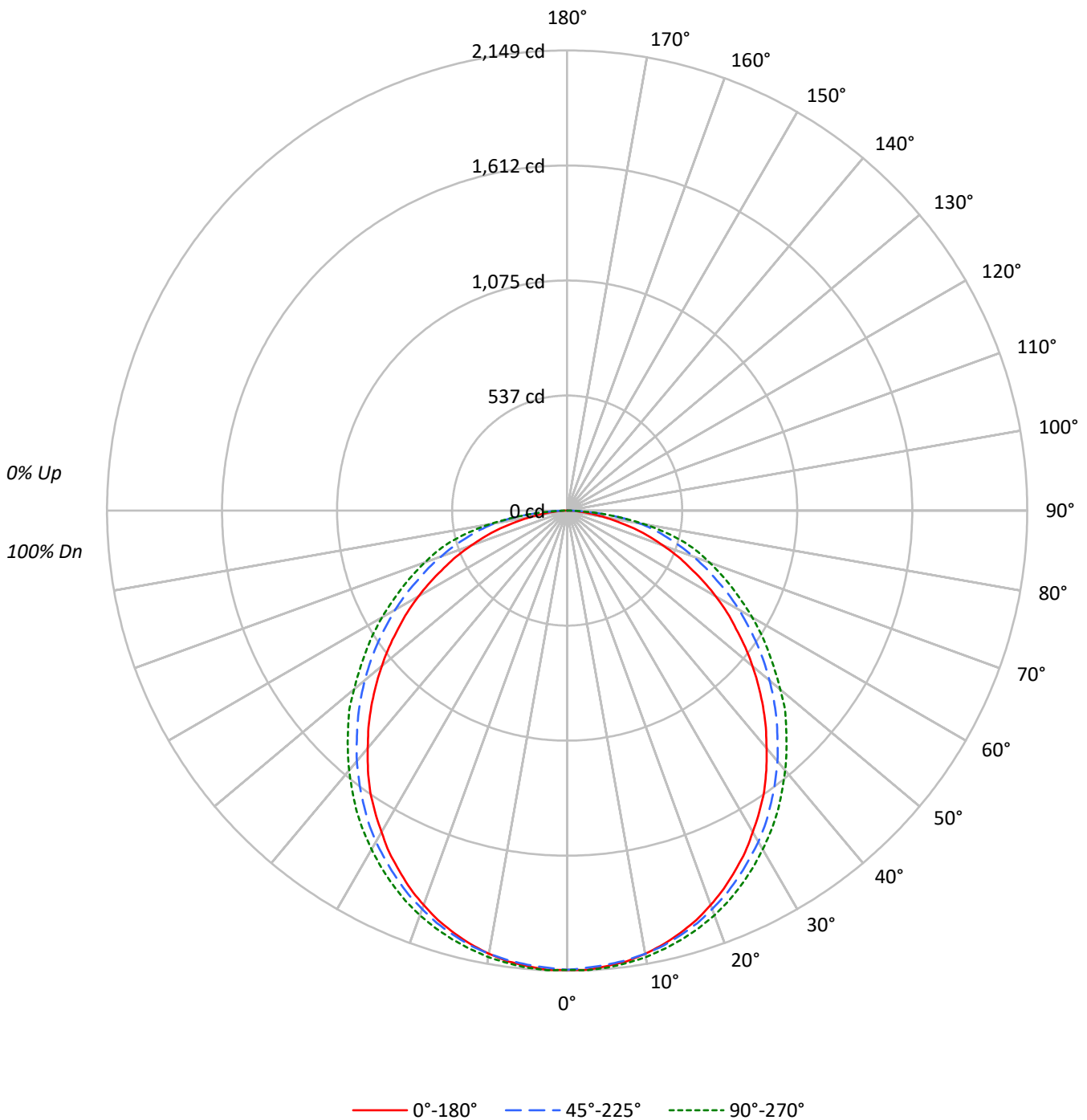
Input Watts (W): 57.846
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2886	2886	2886
5°	2884	2876	2894
10°	2872	2872	2893
15°	2844	2858	2888
20°	2807	2835	2879
25°	2755	2807	2862
30°	2694	2775	2838
35°	2634	2730	2816
40°	2544	2684	2783
45°	2461	2631	2753
50°	2367	2582	2720
55°	2261	2534	2693
60°	2155	2494	2687
65°	2019	2451	2704
70°	1869	2464	2777
75°	1673	2510	2934
80°	1352	2659	2870
85°	1017	2336	2276



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.0	3.3
10°-20°	580.2	9.5
20°-30°	872.1	14.3
30°-40°	1038.8	17.0
40°-50°	1063.2	17.4
50°-60°	957.2	15.7
60°-70°	751.7	12.3
70°-80°	487.9	8.0
80°-90°	150.9	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°	1655.4	27.1
0°-40°	2694.2	44.1
0°-60°	4714.6	77.2
0°-90°	6105.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6105.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2145	2145	2145	2145	2145	
5°	2135	2139	2129	2141	2143	203
15°	2042	2048	2052	2069	2073	576
25°	1856	1871	1891	1922	1928	855
35°	1604	1623	1662	1703	1714	1000
45°	1294	1324	1383	1435	1447	997
55°	964	1006	1080	1136	1148	864
65°	634	683	770	834	849	631
75°	322	384	483	549	564	341
85°	66	122	151	147	147	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2144.8	2144.8	2144.8	2144.8	2144.8
2.5°	2146.7	2146.7	2137.0	2146.7	2148.6
5°	2135.1	2138.9	2129.3	2140.9	2142.8
7.5°	2123.4	2123.4	2117.6	2129.3	2131.2
10°	2102.1	2104.0	2102.1	2115.7	2117.6
12.5°	2075.0	2078.8	2080.8	2094.3	2096.3
15°	2042.0	2047.8	2051.7	2069.1	2073.0
17.5°	2005.1	2011.0	2020.7	2040.0	2043.9
20°	1960.5	1968.3	1979.9	2005.1	2011.0
22.5°	1912.1	1919.8	1939.2	1962.5	1972.2
25°	1855.8	1871.3	1890.7	1921.8	1927.6
27.5°	1799.6	1813.2	1838.4	1871.3	1879.1
30°	1733.7	1755.0	1786.0	1819.0	1826.7
32.5°	1669.7	1691.0	1727.8	1762.7	1772.4
35°	1603.7	1623.1	1661.9	1702.6	1714.3
37.5°	1528.1	1553.3	1596.0	1636.7	1648.3
40°	1448.6	1479.6	1528.1	1570.8	1584.3
42.5°	1373.0	1405.9	1454.4	1500.9	1516.5
45°	1293.5	1324.5	1382.7	1435.0	1446.7
47.5°	1212.0	1246.9	1309.0	1361.3	1380.7
50°	1130.6	1167.4	1233.3	1287.6	1299.3
52.5°	1049.1	1087.9	1157.7	1215.9	1221.7
55°	963.8	1006.4	1080.1	1136.4	1148.0
57.5°	886.2	923.1	1002.6	1060.7	1074.3
60°	800.9	841.6	926.9	981.2	998.7
62.5°	719.4	762.1	851.3	905.6	921.1
65°	634.1	682.6	769.9	833.9	849.4
67.5°	560.4	607.0	700.1	762.1	777.6
70°	475.1	527.5	626.4	690.4	705.9
72.5°	401.4	455.7	554.6	616.7	639.9
75°	321.9	384.0	482.9	548.8	564.3
77.5°	244.3	316.1	416.9	467.3	467.3
80°	174.5	250.2	343.2	366.5	370.4
82.5°	114.4	188.1	254.0	252.1	252.1
85°	65.9	122.2	151.3	147.4	147.4
87.5°	25.2	50.4	54.3	54.3	52.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)