

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: P276678

Luminaire Tested: **24CZ2-75HE-S-UNV-L92765-W2A1-U-2700K**

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: P276678
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-2700K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5871.5 lumens
Efficiency: N/A
Efficacy: 100.7 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

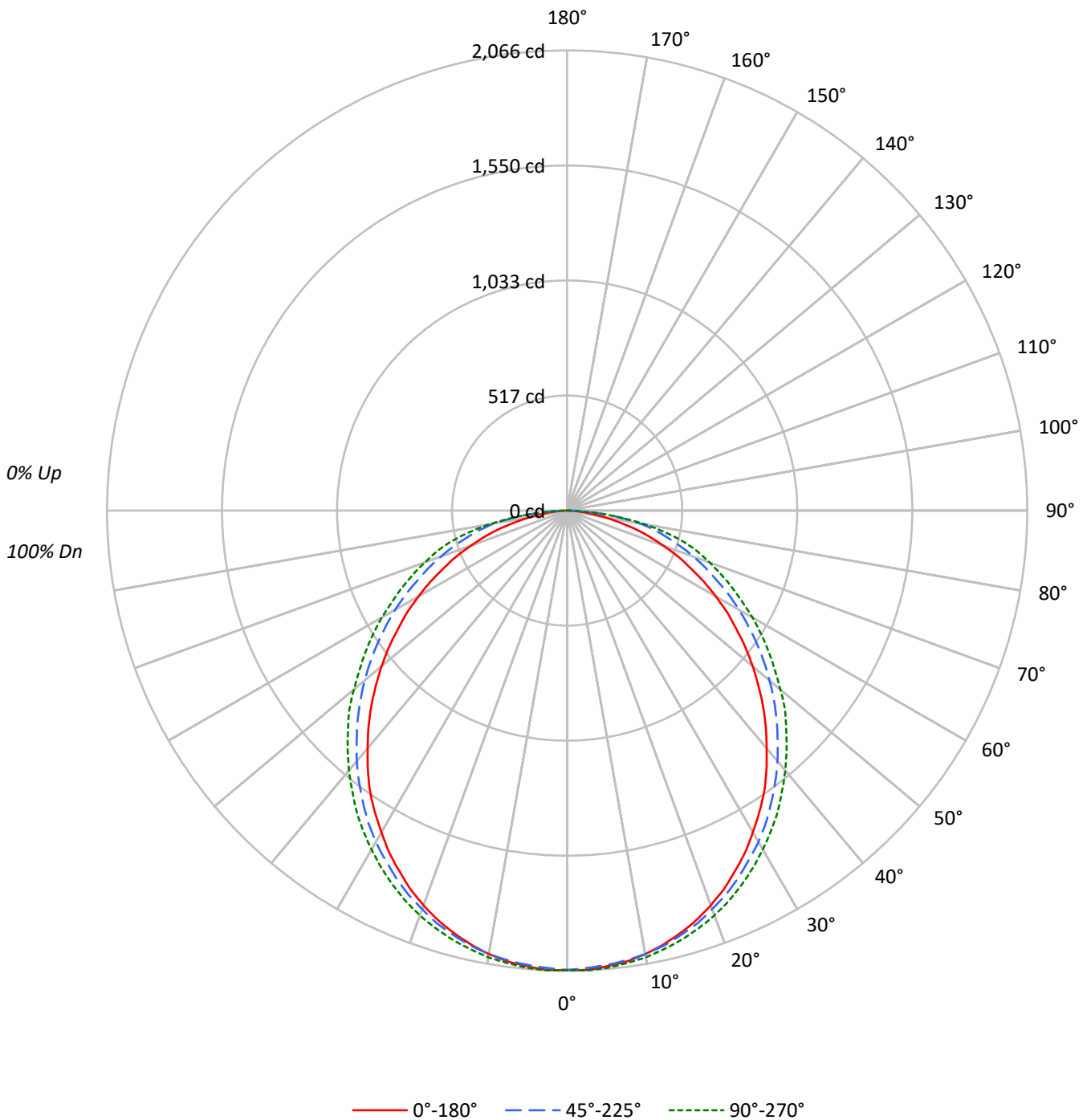
Input Watts (W): 58.311
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69					69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2775	2775	2775
5°	2773	2766	2783
10°	2762	2762	2782
15°	2736	2749	2777
20°	2700	2727	2769
25°	2650	2700	2752
30°	2590	2669	2729
35°	2533	2625	2708
40°	2447	2581	2676
45°	2367	2530	2647
50°	2276	2483	2616
55°	2174	2437	2590
60°	2073	2399	2585
65°	1942	2357	2601
70°	1797	2370	2671
75°	1609	2414	2821
80°	1301	2558	2760
85°	979	2246	2188



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.3	3.3
10°-20°	558.0	9.5
20°-30°	838.8	14.3
30°-40°	999.1	17.0
40°-50°	1022.5	17.4
50°-60°	920.6	15.7
60°-70°	723.0	12.3
70°-80°	469.2	8.0
80°-90°	145.1	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°	1592.0	27.1
0°-40°	2591.1	44.1
0°-60°	4534.2	77.2
0°-90°	5871.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5871.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2063	2063	2063	2063	2063	
5°	2053	2057	2048	2059	2061	195
15°	1964	1970	1973	1990	1994	554
25°	1785	1800	1818	1848	1854	822
35°	1542	1561	1598	1638	1649	962
45°	1244	1274	1330	1380	1391	959
55°	927	968	1039	1093	1104	831
65°	610	656	740	802	817	607
75°	310	369	464	528	543	328
85°	63	118	146	142	142	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2062.7	2062.7	2062.7	2062.7	2062.7
2.5°	2064.6	2064.6	2055.2	2064.6	2066.4
5°	2053.4	2057.1	2047.8	2059.0	2060.8
7.5°	2042.2	2042.2	2036.6	2047.8	2049.6
10°	2021.7	2023.5	2021.7	2034.7	2036.6
12.5°	1995.6	1999.3	2001.2	2014.2	2016.1
15°	1963.9	1969.5	1973.2	1990.0	1993.7
17.5°	1928.4	1934.0	1943.3	1962.0	1965.7
20°	1885.5	1893.0	1904.2	1928.4	1934.0
22.5°	1838.9	1846.4	1865.0	1887.4	1896.7
25°	1784.8	1799.7	1818.4	1848.2	1853.8
27.5°	1730.7	1743.8	1768.0	1799.7	1807.2
30°	1667.3	1687.8	1717.7	1749.4	1756.8
32.5°	1605.8	1626.3	1661.7	1695.3	1704.6
35°	1542.4	1561.0	1598.3	1637.5	1648.7
37.5°	1469.6	1493.9	1534.9	1574.1	1585.3
40°	1393.2	1423.0	1469.6	1510.7	1523.7
42.5°	1320.4	1352.1	1398.8	1443.5	1458.4
45°	1244.0	1273.8	1329.8	1380.1	1391.3
47.5°	1165.6	1199.2	1258.9	1309.2	1327.9
50°	1087.3	1122.7	1186.1	1238.4	1249.6
52.5°	1009.0	1046.3	1113.4	1169.4	1175.0
55°	926.9	967.9	1038.8	1092.9	1104.1
57.5°	852.3	887.7	964.2	1020.2	1033.2
60°	770.3	809.4	891.5	943.7	960.5
62.5°	691.9	733.0	818.7	871.0	885.9
65°	609.9	656.5	740.4	802.0	816.9
67.5°	539.0	583.7	673.3	733.0	747.9
70°	456.9	507.3	602.4	663.9	678.9
72.5°	386.1	438.3	533.4	593.1	615.5
75°	309.6	369.3	464.4	527.8	542.7
77.5°	235.0	304.0	401.0	449.5	449.5
80°	167.9	240.6	330.1	352.5	356.2
82.5°	110.0	180.9	244.3	242.5	242.5
85°	63.4	117.5	145.5	141.7	141.7
87.5°	24.2	48.5	52.2	52.2	50.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)