

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: P276680

Luminaire Tested: **24CZ2-75HE-S-UNV-L92765-W2A1-U-3500K**

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: P276680
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-3500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6410.3 lumens
Efficiency: N/A
Efficacy: 109.6 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

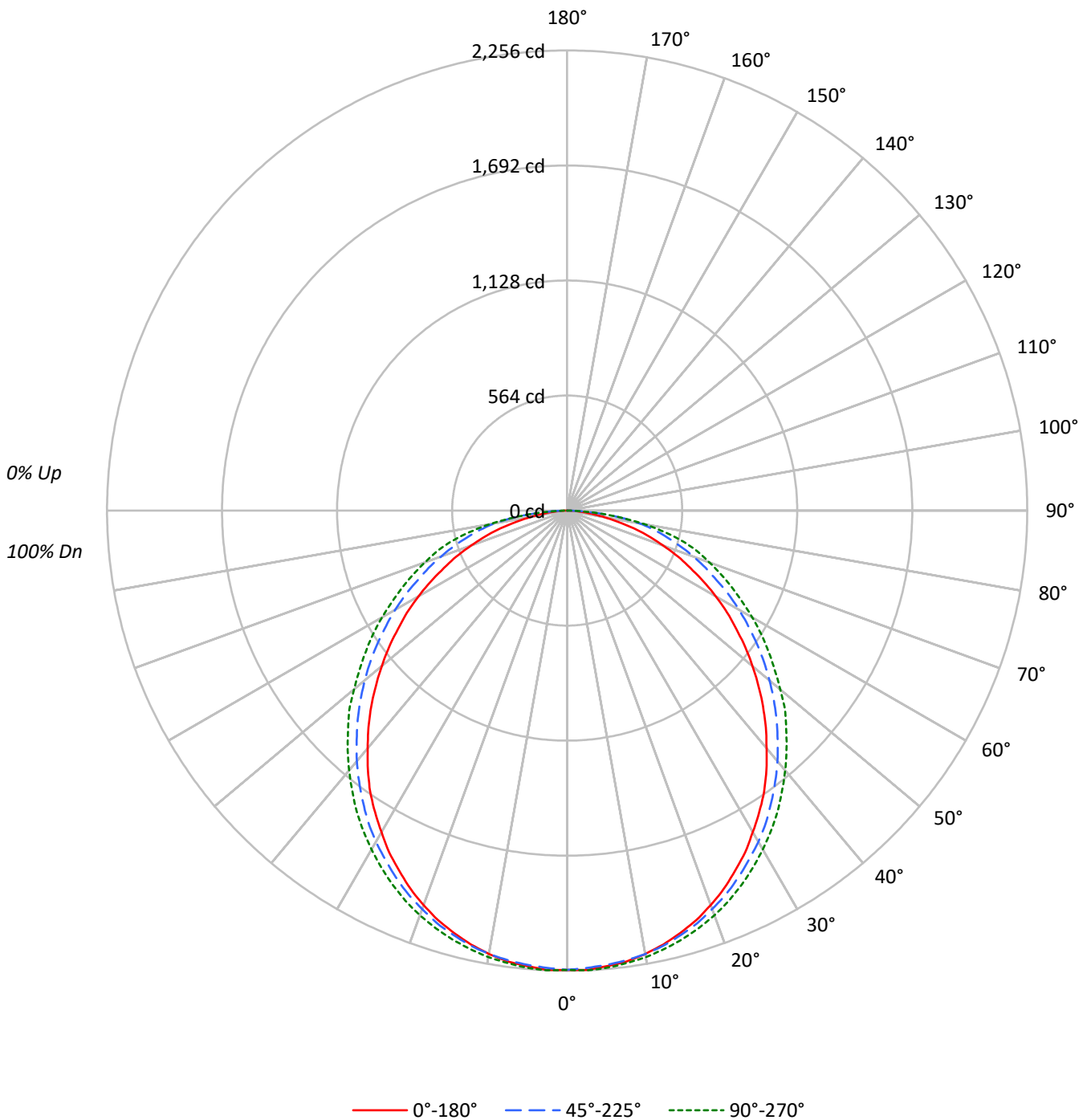
Input Watts (W): 58.497
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3030	3030	3030
5°	3028	3020	3039
10°	3016	3016	3038
15°	2987	3001	3032
20°	2947	2977	3023
25°	2893	2947	3005
30°	2828	2914	2980
35°	2766	2866	2956
40°	2672	2818	2922
45°	2584	2762	2890
50°	2485	2711	2856
55°	2374	2660	2828
60°	2263	2619	2822
65°	2120	2573	2839
70°	1963	2587	2916
75°	1757	2636	3080
80°	1420	2793	3013
85°	1068	2452	2388



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.2	3.3
10°-20°	609.2	9.5
20°-30°	915.7	14.3
30°-40°	1090.8	17.0
40°-50°	1116.4	17.4
50°-60°	1005.1	15.7
60°-70°	789.3	12.3
70°-80°	512.3	8.0
80°-90°	158.4	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°	1738.1	27.1
0°-40°	2828.9	44.1
0°-60°	4950.3	77.2
0°-90°	6410.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6410.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2252	2252	2252	2252	2252	
5°	2242	2246	2236	2248	2250	213
15°	2144	2150	2154	2173	2177	605
25°	1949	1965	1985	2018	2024	898
35°	1684	1704	1745	1788	1800	1050
45°	1358	1391	1452	1507	1519	1047
55°	1012	1057	1134	1193	1205	907
65°	666	717	808	876	892	663
75°	338	403	507	576	592	358
85°	69	128	159	155	155	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2252.0	2252.0	2252.0	2252.0	2252.0
2.5°	2254.0	2254.0	2243.8	2254.0	2256.0
5°	2241.8	2245.9	2235.7	2247.9	2249.9
7.5°	2229.6	2229.6	2223.5	2235.7	2237.7
10°	2207.2	2209.2	2207.2	2221.4	2223.5
12.5°	2178.7	2182.7	2184.8	2199.0	2201.1
15°	2144.1	2150.2	2154.2	2172.6	2176.6
17.5°	2105.4	2111.5	2121.7	2142.0	2146.1
20°	2058.5	2066.7	2078.9	2105.4	2111.5
22.5°	2007.6	2015.8	2036.1	2060.6	2070.8
25°	1948.6	1964.9	1985.2	2017.8	2023.9
27.5°	1889.5	1903.8	1930.3	1964.9	1973.0
30°	1820.3	1842.7	1875.3	1909.9	1918.0
32.5°	1753.1	1775.5	1814.2	1850.9	1861.0
35°	1683.9	1704.2	1745.0	1787.7	1799.9
37.5°	1604.5	1630.9	1675.7	1718.5	1730.7
40°	1521.0	1553.6	1604.5	1649.3	1663.5
42.5°	1441.6	1476.2	1527.1	1576.0	1592.3
45°	1358.1	1390.7	1451.8	1506.7	1519.0
47.5°	1272.6	1309.2	1374.4	1429.4	1449.7
50°	1187.1	1225.8	1295.0	1352.0	1364.2
52.5°	1101.6	1142.3	1215.6	1276.7	1282.8
55°	1012.0	1056.8	1134.1	1193.2	1205.4
57.5°	930.5	969.2	1052.7	1113.8	1128.0
60°	840.9	883.7	973.3	1030.3	1048.6
62.5°	755.4	800.2	893.9	950.9	967.2
65°	665.8	716.7	808.3	875.5	891.8
67.5°	588.4	637.3	735.0	800.2	816.5
70°	498.9	553.8	657.7	724.9	741.2
72.5°	421.5	478.5	582.3	647.5	671.9
75°	338.0	403.2	507.0	576.2	592.5
77.5°	256.6	331.9	437.8	490.7	490.7
80°	183.3	262.7	360.4	384.8	388.9
82.5°	120.1	197.5	266.7	264.7	264.7
85°	69.2	128.3	158.8	154.7	154.7
87.5°	26.5	52.9	57.0	57.0	55.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)