

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: P388972

Luminaire Tested: **24CZ2-75VHE-UNV-L940-CD1-SWPD1-U**

Issue Date: 2/28/2020

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: P388972
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-75VHE-UNV-L940-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6463.9 lumens
Efficiency: N/A
Efficacy: 129.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

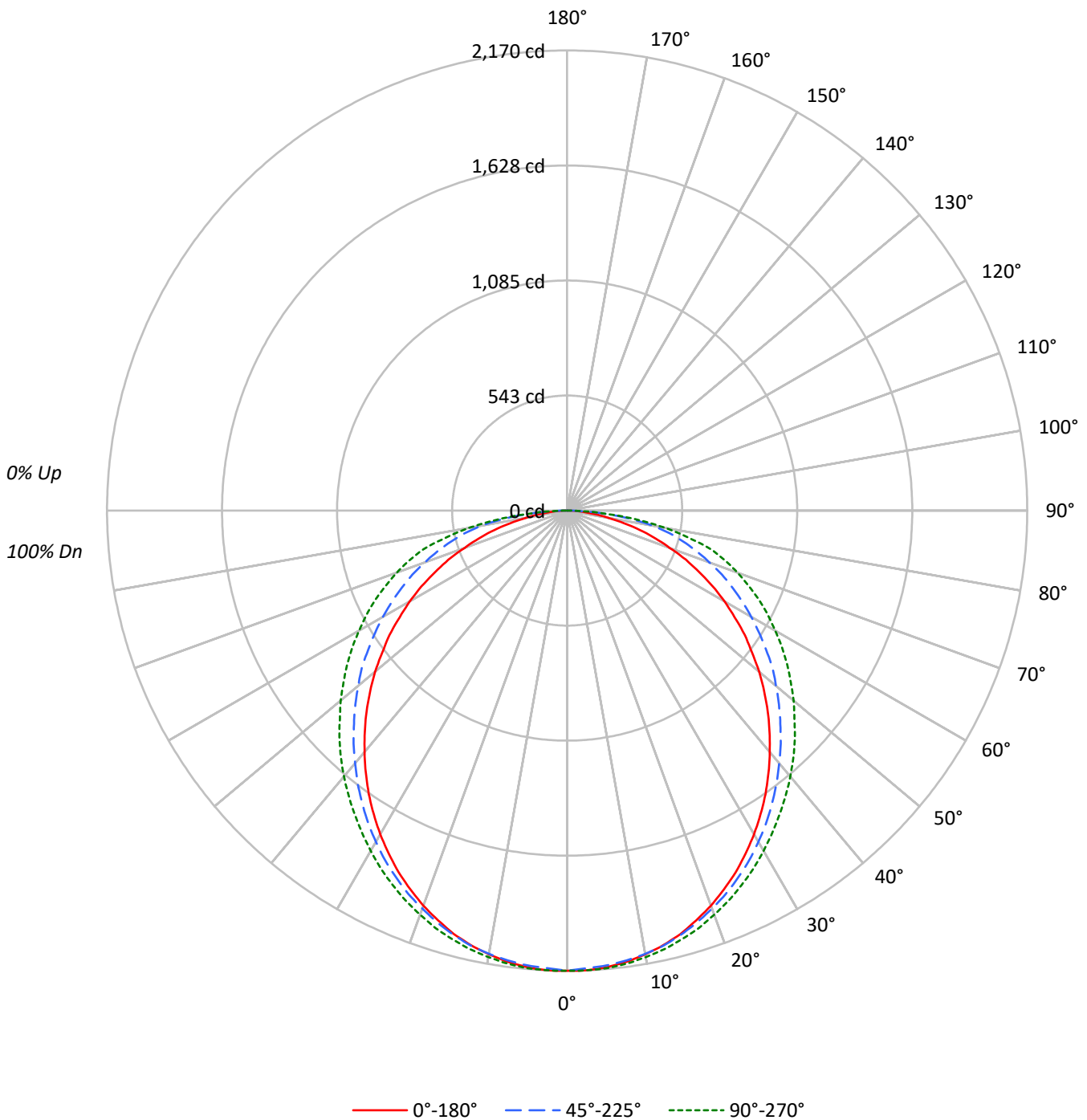
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2920	2920	2920
5°	2920	2908	2925
10°	2903	2900	2921
15°	2879	2885	2915
20°	2839	2860	2904
25°	2793	2834	2892
30°	2738	2802	2879
35°	2679	2767	2870
40°	2611	2732	2876
45°	2545	2705	2890
50°	2475	2691	2917
55°	2399	2687	2970
60°	2305	2699	3048
65°	2184	2741	3180
70°	2028	2809	3361
75°	1851	2950	3645
80°	1521	3176	3644
85°	1166	2930	3131



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.3	3.2
10°-20°	586.0	9.1
20°-30°	881.8	13.6
30°-40°	1056.7	16.3
40°-50°	1101.2	17.0
50°-60°	1024.6	15.9
60°-70°	843.9	13.1
70°-80°	574.7	8.9
80°-90°	189.7	2.9
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°	1673.0	25.9
0°-40°	2729.8	42.2
0°-60°	4855.6	75.1
0°-90°	6463.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6463.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2170	2170	2170	2170	2170	
5°	2162	2162	2153	2164	2166	205
15°	2067	2069	2071	2090	2093	582
25°	1881	1890	1909	1942	1948	866
35°	1631	1650	1685	1730	1747	1019
45°	1338	1366	1422	1493	1519	1032
55°	1023	1057	1146	1236	1266	911
65°	686	744	861	962	999	681
75°	356	436	567	669	701	375
85°	76	147	190	203	203	94
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2170.2	2170.2	2170.2	2170.2	2170.2
2.5°	2170.2	2170.2	2159.4	2170.2	2170.2
5°	2161.6	2161.6	2153.0	2163.8	2165.9
7.5°	2146.5	2148.7	2140.0	2153.0	2155.1
10°	2124.9	2127.1	2122.8	2135.7	2137.9
12.5°	2099.0	2101.2	2101.2	2116.3	2118.5
15°	2066.7	2068.8	2071.0	2090.4	2092.6
17.5°	2025.7	2032.2	2036.5	2060.2	2064.5
20°	1982.5	1989.0	1997.6	2023.5	2027.9
22.5°	1932.9	1941.6	1956.7	1984.7	1991.2
25°	1881.2	1889.8	1909.2	1941.6	1948.0
27.5°	1822.9	1835.9	1859.6	1894.1	1902.7
30°	1762.5	1775.4	1803.5	1840.2	1853.1
32.5°	1697.8	1715.0	1747.4	1788.4	1801.3
35°	1630.9	1650.3	1684.8	1730.1	1747.4
37.5°	1559.7	1581.3	1622.3	1671.9	1693.5
40°	1486.4	1512.3	1555.4	1613.7	1637.4
42.5°	1413.0	1436.8	1490.7	1553.2	1579.1
45°	1337.5	1365.6	1421.7	1492.8	1518.7
47.5°	1259.9	1287.9	1354.8	1430.3	1454.0
50°	1182.2	1210.2	1285.7	1365.6	1393.6
52.5°	1098.1	1134.7	1221.0	1300.8	1328.9
55°	1022.6	1057.1	1145.5	1236.1	1266.3
57.5°	936.3	977.3	1074.3	1169.3	1201.6
60°	856.4	899.6	1003.1	1100.2	1132.6
62.5°	774.5	821.9	931.9	1031.2	1067.9
65°	686.0	744.3	860.8	962.2	998.8
67.5°	606.2	666.6	789.6	893.1	925.5
70°	515.6	588.9	714.1	817.6	854.3
72.5°	437.9	511.3	642.9	744.3	780.9
75°	356.0	435.8	567.4	668.8	701.1
77.5°	274.0	362.4	494.0	571.7	582.5
80°	196.3	289.1	409.9	455.2	470.3
82.5°	138.1	222.2	302.0	332.2	340.9
85°	75.5	146.7	189.8	202.8	202.8
87.5°	32.4	62.6	75.5	77.7	79.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)