

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: P391851

Luminaire Tested: **24CZ2-95VHE-HRP-UNV-L940-CD1-SDWPD1-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: P391851
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-95VHE-HRP-UNV-L940-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6735.7 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

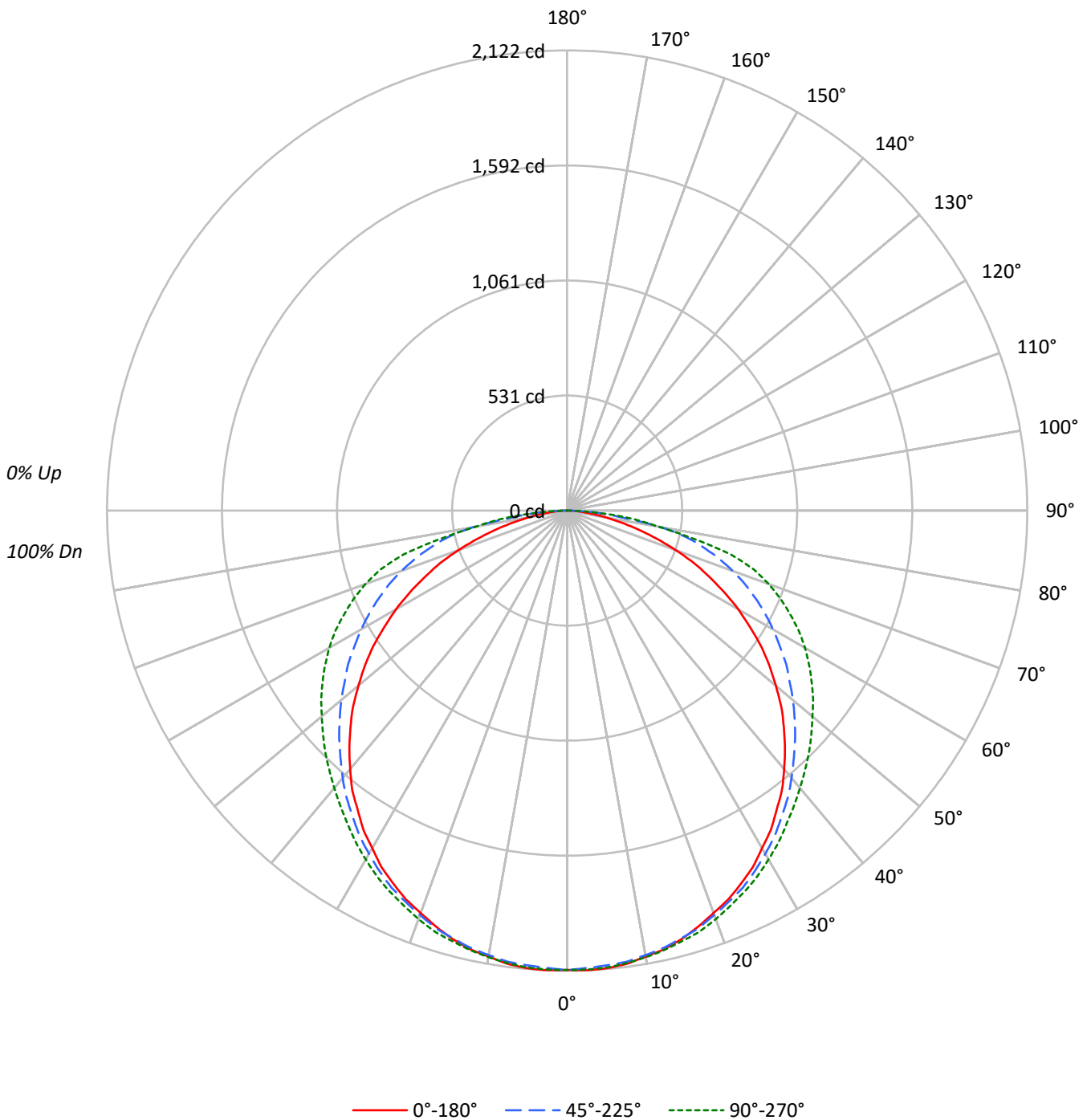
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2850	2850	2850
5°	2861	2843	2856
10°	2853	2844	2858
15°	2848	2843	2862
20°	2827	2841	2870
25°	2817	2847	2877
30°	2793	2839	2886
35°	2766	2832	2897
40°	2735	2829	2934
45°	2689	2829	3001
50°	2629	2846	3091
55°	2563	2892	3229
60°	2454	2949	3407
65°	2298	3053	3616
70°	2090	3194	3890
75°	1772	3370	4064
80°	1398	3391	3288
85°	1031	2578	2888



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	200.9	3.0
10°-20°	578.3	8.6
20°-30°	884.3	13.1
30°-40°	1081.0	16.0
40°-50°	1152.2	17.1
50°-60°	1101.6	16.4
60°-70°	933.2	13.9
70°-80°	627.2	9.3
80°-90°	176.9	2.6
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°	1663.5	24.7
0°-40°	2744.6	40.7
0°-60°	4998.4	74.2
0°-90°	6735.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6735.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2118	2118	2118	2118	2118	
5°	2118	2115	2105	2115	2115	201
15°	2045	2045	2041	2058	2055	577
25°	1898	1904	1918	1934	1938	875
35°	1684	1697	1724	1757	1764	1055
45°	1413	1437	1487	1550	1577	1090
55°	1092	1133	1233	1330	1376	973
65°	722	795	959	1086	1136	716
75°	341	464	648	758	782	365
85°	67	137	167	180	187	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2118.2	2118.2	2118.2	2118.2	2118.2
2.5°	2121.5	2121.5	2111.5	2118.2	2118.2
5°	2118.2	2114.8	2104.8	2114.8	2114.8
7.5°	2108.2	2104.8	2098.1	2108.2	2104.8
10°	2088.1	2088.1	2081.4	2091.5	2091.5
12.5°	2071.4	2068.1	2064.7	2078.1	2074.8
15°	2044.7	2044.7	2041.3	2058.0	2054.7
17.5°	2011.3	2014.6	2018.0	2031.3	2034.7
20°	1974.5	1981.2	1984.5	2004.6	2004.6
22.5°	1941.1	1944.5	1951.1	1971.2	1971.2
25°	1897.7	1904.4	1917.7	1934.4	1937.8
27.5°	1854.2	1857.6	1874.3	1897.7	1901.0
30°	1797.5	1807.5	1827.5	1854.2	1857.6
32.5°	1747.3	1757.4	1780.7	1807.5	1814.2
35°	1683.9	1697.2	1723.9	1757.4	1764.0
37.5°	1627.1	1637.1	1670.5	1707.2	1717.3
40°	1556.9	1576.9	1610.4	1653.8	1670.5
42.5°	1486.7	1506.8	1546.9	1603.7	1623.7
45°	1413.2	1436.6	1486.7	1550.2	1576.9
47.5°	1339.7	1366.5	1423.3	1496.8	1526.8
50°	1256.2	1289.6	1359.8	1443.3	1476.7
52.5°	1176.0	1216.1	1293.0	1386.5	1429.9
55°	1092.5	1132.6	1232.8	1329.7	1376.5
57.5°	999.0	1052.4	1162.7	1272.9	1323.0
60°	912.1	962.2	1095.8	1216.1	1266.2
62.5°	818.5	885.4	1029.0	1156.0	1206.1
65°	721.7	795.2	958.9	1085.8	1135.9
67.5°	634.8	715.0	888.7	1015.7	1065.8
70°	531.2	631.4	811.9	938.8	988.9
72.5°	434.3	544.6	731.7	855.3	902.1
75°	340.8	464.4	648.2	758.4	781.8
77.5°	253.9	384.2	561.3	608.1	591.4
80°	180.4	307.4	437.7	414.3	424.3
82.5°	116.9	233.9	270.6	307.4	317.4
85°	66.8	137.0	167.0	180.4	187.1
87.5°	30.1	50.1	66.8	66.8	63.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)