

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: P389168

Luminaire Tested: **24CZ2-85VHE-SQR-UNV-L940-CD1-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: P389168
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-85VHE-SQR-UNV-L940-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7055.3 lumens
Efficiency: N/A
Efficacy: 121.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

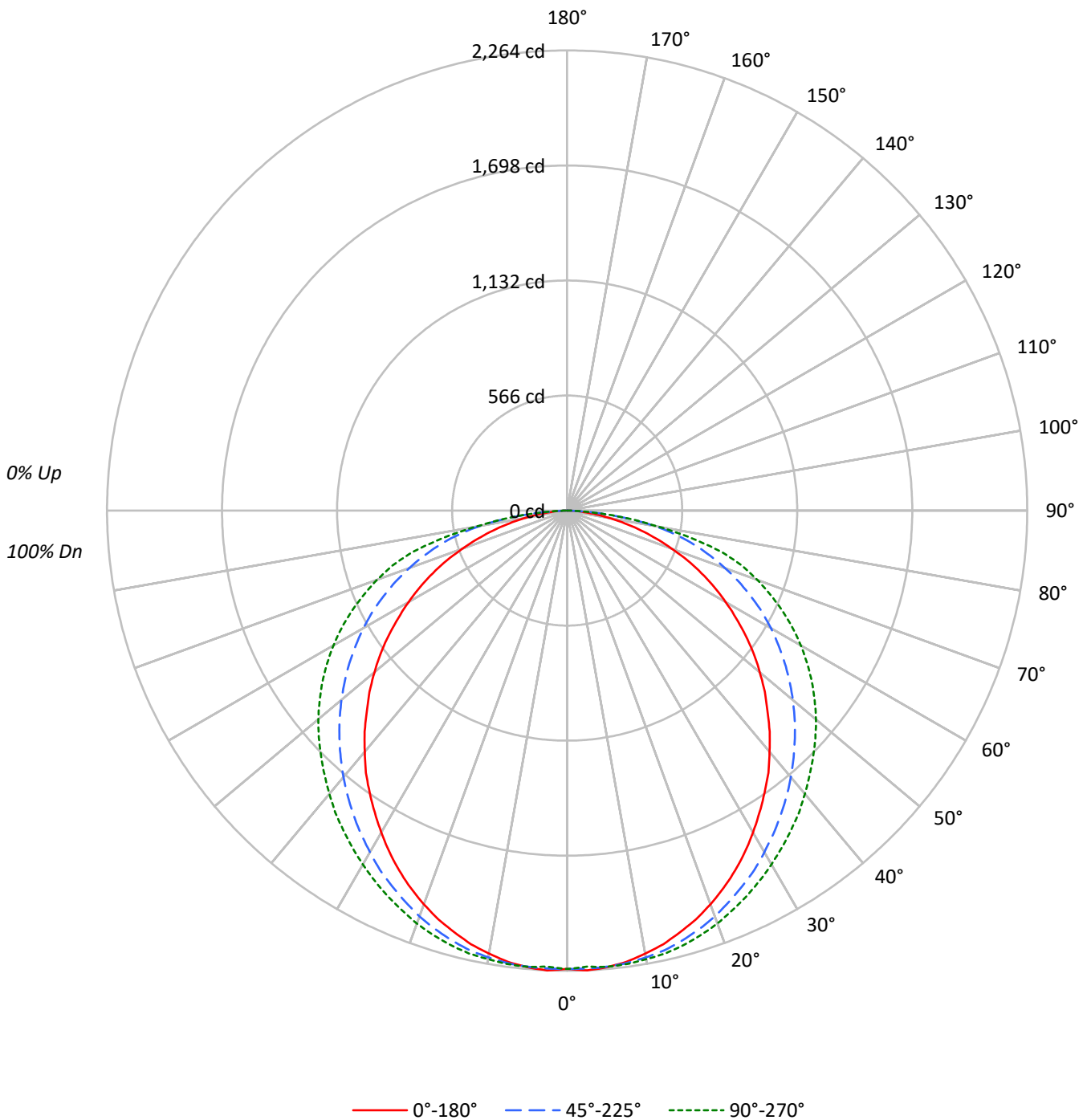
Input Watts (W): 57.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3034	3034	3034
5°	3046	3043	3043
10°	3024	3049	3062
15°	2992	3051	3083
20°	2952	3042	3096
25°	2902	3026	3106
30°	2841	3015	3124
35°	2782	3008	3153
40°	2721	3008	3196
45°	2651	3014	3258
50°	2590	3033	3345
55°	2514	3066	3449
60°	2426	3116	3574
65°	2322	3174	3723
70°	2154	3254	3913
75°	1950	3367	4094
80°	1643	3376	3520
85°	1258	2553	2553



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.1	3.0
10°-20°	615.9	8.7
20°-30°	935.5	13.3
30°-40°	1137.9	16.1
40°-50°	1211.5	17.2
50°-60°	1153.9	16.4
60°-70°	965.0	13.7
70°-80°	643.4	9.1
80°-90°	178.0	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°	1765.5	25.0
0°-40°	2903.4	41.2
0°-60°	5268.9	74.7
0°-90°	7055.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7055.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2255	2255	2255	2255	2255	
5°	2255	2241	2253	2253	2253	214
15°	2148	2153	2190	2206	2213	606
25°	1955	1980	2038	2074	2092	900
35°	1694	1743	1831	1892	1920	1060
45°	1393	1468	1584	1673	1712	1077
55°	1072	1165	1307	1421	1470	958
65°	729	836	997	1121	1170	720
75°	375	494	648	757	788	397
85°	82	151	165	163	165	99
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2255.2	2255.2	2255.2	2255.2	2255.2
2.5°	2264.5	2248.2	2255.2	2255.2	2245.9
5°	2255.2	2241.2	2252.9	2252.9	2252.9
7.5°	2238.9	2227.3	2245.9	2250.6	2250.6
10°	2213.3	2208.6	2231.9	2238.9	2241.2
12.5°	2185.3	2183.0	2215.6	2224.9	2231.9
15°	2148.0	2152.7	2190.0	2206.3	2213.3
17.5°	2108.4	2117.8	2159.7	2183.0	2190.0
20°	2061.8	2075.8	2124.8	2148.0	2162.0
22.5°	2010.6	2031.6	2082.8	2110.8	2127.1
25°	1954.7	1980.3	2038.5	2073.5	2092.1
27.5°	1894.1	1926.7	1994.3	2033.9	2052.5
30°	1828.9	1866.1	1940.7	1987.3	2010.6
32.5°	1761.3	1805.6	1887.1	1938.4	1966.3
35°	1693.7	1742.7	1831.2	1891.8	1919.7
37.5°	1626.2	1675.1	1773.0	1838.2	1873.1
40°	1549.3	1607.5	1712.4	1784.6	1819.6
42.5°	1474.7	1537.6	1649.5	1728.7	1766.0
45°	1393.2	1467.8	1584.2	1672.8	1712.4
47.5°	1318.6	1393.2	1519.0	1612.2	1656.5
50°	1237.1	1316.3	1449.1	1551.6	1598.2
52.5°	1157.9	1239.4	1379.2	1488.7	1535.3
55°	1071.7	1164.9	1307.0	1421.2	1470.1
57.5°	985.5	1085.7	1232.4	1351.3	1400.2
60°	901.6	1004.1	1157.9	1276.7	1328.0
62.5°	817.7	920.3	1081.0	1202.2	1251.1
65°	729.2	836.4	997.1	1120.6	1169.5
67.5°	640.7	752.5	913.3	1036.7	1083.3
70°	547.5	666.3	827.1	948.2	994.8
72.5°	461.3	580.1	738.5	857.4	901.6
75°	375.1	493.9	647.7	757.2	787.5
77.5°	291.2	410.0	547.5	619.7	626.7
80°	212.0	323.8	435.7	456.6	454.3
82.5°	142.1	242.3	300.5	302.9	309.9
85°	81.5	151.4	165.4	163.1	165.4
87.5°	32.6	53.6	46.6	34.9	34.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)