

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: P389093

Luminaire Tested: **24CZ2-75HE-SQR-UNV-L935-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: P389093
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: 24CZ2-75HE-SQR-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6148.3 lumens
Efficiency: N/A
Efficacy: 111.0 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

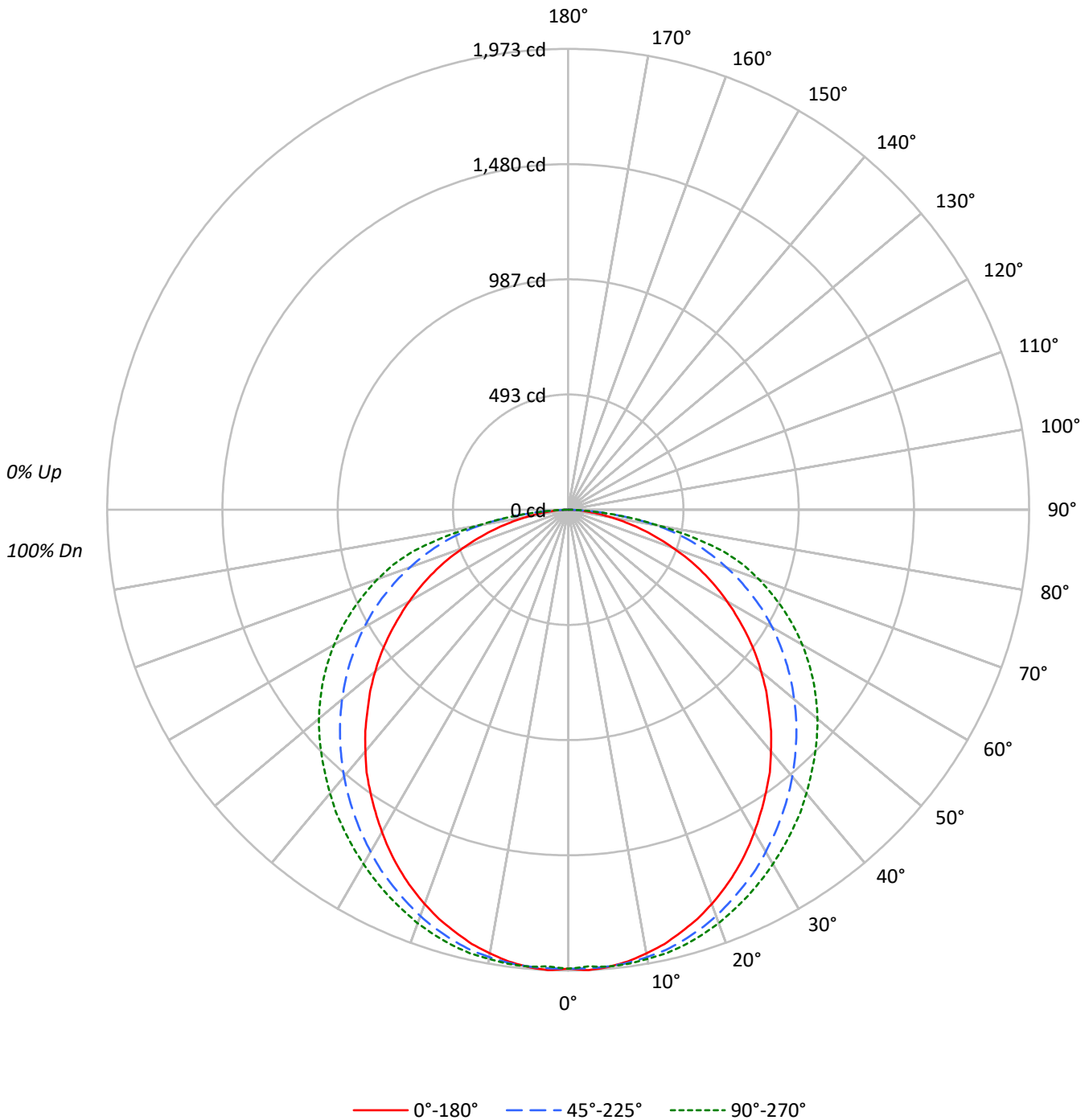
Input Watts (W): 55.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2644	2644	2644
5°	2654	2652	2652
10°	2635	2657	2668
15°	2607	2658	2687
20°	2573	2651	2698
25°	2529	2637	2707
30°	2476	2628	2722
35°	2424	2621	2748
40°	2371	2621	2785
45°	2310	2627	2839
50°	2257	2643	2915
55°	2191	2672	3005
60°	2114	2715	3114
65°	2023	2767	3245
70°	1877	2835	3410
75°	1699	2934	3567
80°	1432	2942	3068
85°	1098	2225	2225



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.6	3.0
10°-20°	536.7	8.7
20°-30°	815.3	13.3
30°-40°	991.6	16.1
40°-50°	1055.8	17.2
50°-60°	1005.6	16.4
60°-70°	841.0	13.7
70°-80°	560.7	9.1
80°-90°	155.1	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°	1538.5	25.0
0°-40°	2530.2	41.2
0°-60°	4591.5	74.7
0°-90°	6148.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6148.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1965	1965	1965	1965	1965	
5°	1965	1953	1963	1963	1963	186
15°	1872	1876	1908	1923	1929	528
25°	1703	1726	1776	1807	1823	784
35°	1476	1519	1596	1649	1673	924
45°	1214	1279	1381	1458	1492	939
55°	934	1015	1139	1238	1281	835
65°	636	729	869	977	1019	628
75°	327	430	564	660	686	346
85°	71	132	144	142	144	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1965.3	1965.3	1965.3	1965.3	1965.3
2.5°	1973.4	1959.2	1965.3	1965.3	1957.2
5°	1965.3	1953.1	1963.3	1963.3	1963.3
7.5°	1951.1	1940.9	1957.2	1961.2	1961.2
10°	1928.8	1924.7	1945.0	1951.1	1953.1
12.5°	1904.4	1902.4	1930.8	1938.9	1945.0
15°	1871.9	1876.0	1908.4	1922.7	1928.8
17.5°	1837.4	1845.5	1882.1	1902.4	1908.4
20°	1796.8	1809.0	1851.6	1871.9	1884.1
22.5°	1752.1	1770.4	1815.1	1839.4	1853.6
25°	1703.4	1725.7	1776.5	1806.9	1823.2
27.5°	1650.6	1679.0	1737.9	1772.4	1788.7
30°	1593.8	1626.2	1691.2	1731.8	1752.1
32.5°	1534.9	1573.5	1644.5	1689.2	1713.5
35°	1476.0	1518.6	1595.8	1648.6	1672.9
37.5°	1417.1	1459.8	1545.0	1601.9	1632.3
40°	1350.1	1400.9	1492.2	1555.2	1585.6
42.5°	1285.2	1340.0	1437.4	1506.5	1538.9
45°	1214.1	1279.1	1380.6	1457.7	1492.2
47.5°	1149.1	1214.1	1323.7	1404.9	1443.5
50°	1078.1	1147.1	1262.8	1352.2	1392.8
52.5°	1009.0	1080.1	1201.9	1297.3	1337.9
55°	933.9	1015.1	1139.0	1238.5	1281.1
57.5°	858.8	946.1	1074.0	1177.6	1220.2
60°	785.7	875.0	1009.0	1112.6	1157.3
62.5°	712.6	802.0	942.0	1047.6	1090.3
65°	635.5	728.9	869.0	976.6	1019.2
67.5°	558.3	655.8	795.9	903.5	944.1
70°	477.1	580.7	720.7	826.3	866.9
72.5°	402.0	505.5	643.6	747.1	785.7
75°	326.9	430.4	564.4	659.8	686.2
77.5°	253.8	357.3	477.1	540.1	546.1
80°	184.8	282.2	379.7	397.9	395.9
82.5°	123.8	211.1	261.9	263.9	270.0
85°	71.1	132.0	144.1	142.1	144.1
87.5°	28.4	46.7	40.6	30.5	30.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)