

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: P388997

Luminaire Tested: **24CZ2-65HE-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: P388997
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: 24CZ2-65HE-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: 5351.0 lumens
Efficiency: N/A
Efficacy: 109.4 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

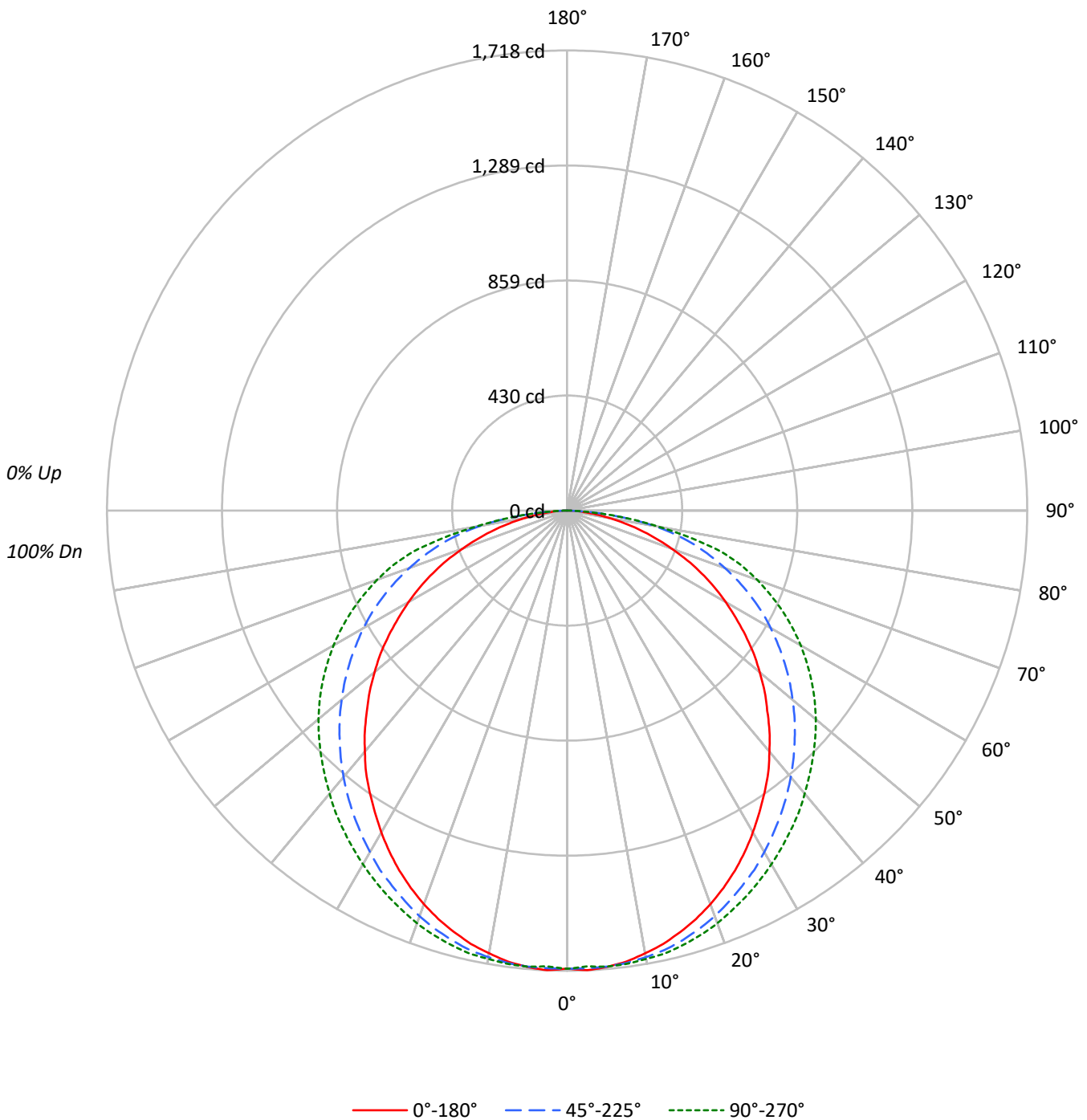
Input Watts (W): 48.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2301	2301	2301
5°	2310	2308	2308
10°	2293	2313	2322
15°	2269	2314	2338
20°	2239	2307	2348
25°	2201	2295	2356
30°	2155	2287	2369
35°	2110	2281	2392
40°	2064	2281	2424
45°	2011	2286	2471
50°	1964	2301	2537
55°	1907	2325	2616
60°	1840	2363	2710
65°	1761	2408	2824
70°	1633	2468	2968
75°	1479	2554	3105
80°	1246	2560	2670
85°	954	1937	1937



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.4	3.0
10°-20°	467.1	8.7
20°-30°	709.5	13.3
30°-40°	863.0	16.1
40°-50°	918.9	17.2
50°-60°	875.2	16.4
60°-70°	731.9	13.7
70°-80°	488.0	9.1
80°-90°	135.0	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°	1339.0	25.0
0°-40°	2202.1	41.2
0°-60°	3996.1	74.7
0°-90°	5351.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5351.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1710	1710	1710	1710	1710	
5°	1710	1700	1709	1709	1709	162
15°	1629	1633	1661	1673	1679	459
25°	1482	1502	1546	1573	1587	683
35°	1285	1322	1389	1435	1456	804
45°	1057	1113	1202	1269	1299	817
55°	813	884	991	1078	1115	727
65°	553	634	756	850	887	546
75°	284	375	491	574	597	301
85°	62	115	126	124	126	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1710.4	1710.4	1710.4	1710.4	1710.4
2.5°	1717.5	1705.1	1710.4	1710.4	1703.4
5°	1710.4	1699.8	1708.7	1708.7	1708.7
7.5°	1698.1	1689.2	1703.4	1706.9	1706.9
10°	1678.6	1675.1	1692.8	1698.1	1699.8
12.5°	1657.4	1655.7	1680.4	1687.5	1692.8
15°	1629.2	1632.7	1661.0	1673.3	1678.6
17.5°	1599.1	1606.2	1638.0	1655.7	1661.0
20°	1563.8	1574.4	1611.5	1629.2	1639.8
22.5°	1524.9	1540.8	1579.7	1600.9	1613.3
25°	1482.5	1501.9	1546.1	1572.6	1586.8
27.5°	1436.6	1461.3	1512.5	1542.6	1556.7
30°	1387.1	1415.4	1471.9	1507.2	1524.9
32.5°	1335.8	1369.4	1431.3	1470.1	1491.3
35°	1284.6	1321.7	1388.8	1434.8	1456.0
37.5°	1233.4	1270.5	1344.7	1394.1	1420.7
40°	1175.0	1219.2	1298.7	1353.5	1380.0
42.5°	1118.5	1166.2	1251.0	1311.1	1339.4
45°	1056.7	1113.2	1201.5	1268.7	1298.7
47.5°	1000.1	1056.7	1152.1	1222.8	1256.3
50°	938.3	998.3	1099.1	1176.8	1212.2
52.5°	878.2	940.0	1046.1	1129.1	1164.4
55°	812.8	883.5	991.3	1077.9	1115.0
57.5°	747.4	823.4	934.7	1024.9	1062.0
60°	683.8	761.6	878.2	968.3	1007.2
62.5°	620.2	698.0	819.9	911.8	948.9
65°	553.1	634.3	756.3	849.9	887.0
67.5°	485.9	570.7	692.7	786.3	821.6
70°	415.2	505.4	627.3	719.2	754.5
72.5°	349.9	440.0	560.1	650.2	683.8
75°	284.5	374.6	491.2	574.3	597.2
77.5°	220.9	311.0	415.2	470.0	475.3
80°	160.8	245.6	330.4	346.3	344.6
82.5°	107.8	183.8	227.9	229.7	235.0
85°	61.8	114.9	125.5	123.7	125.5
87.5°	24.7	40.6	35.3	26.5	26.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)