

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: P272183

Luminaire Tested: **24CZ2-65HE-S-UNV-L940-CD1-U**

Issue Date: 3/3/2020

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: P272183
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-65HE-S-UNV-L940-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (392) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

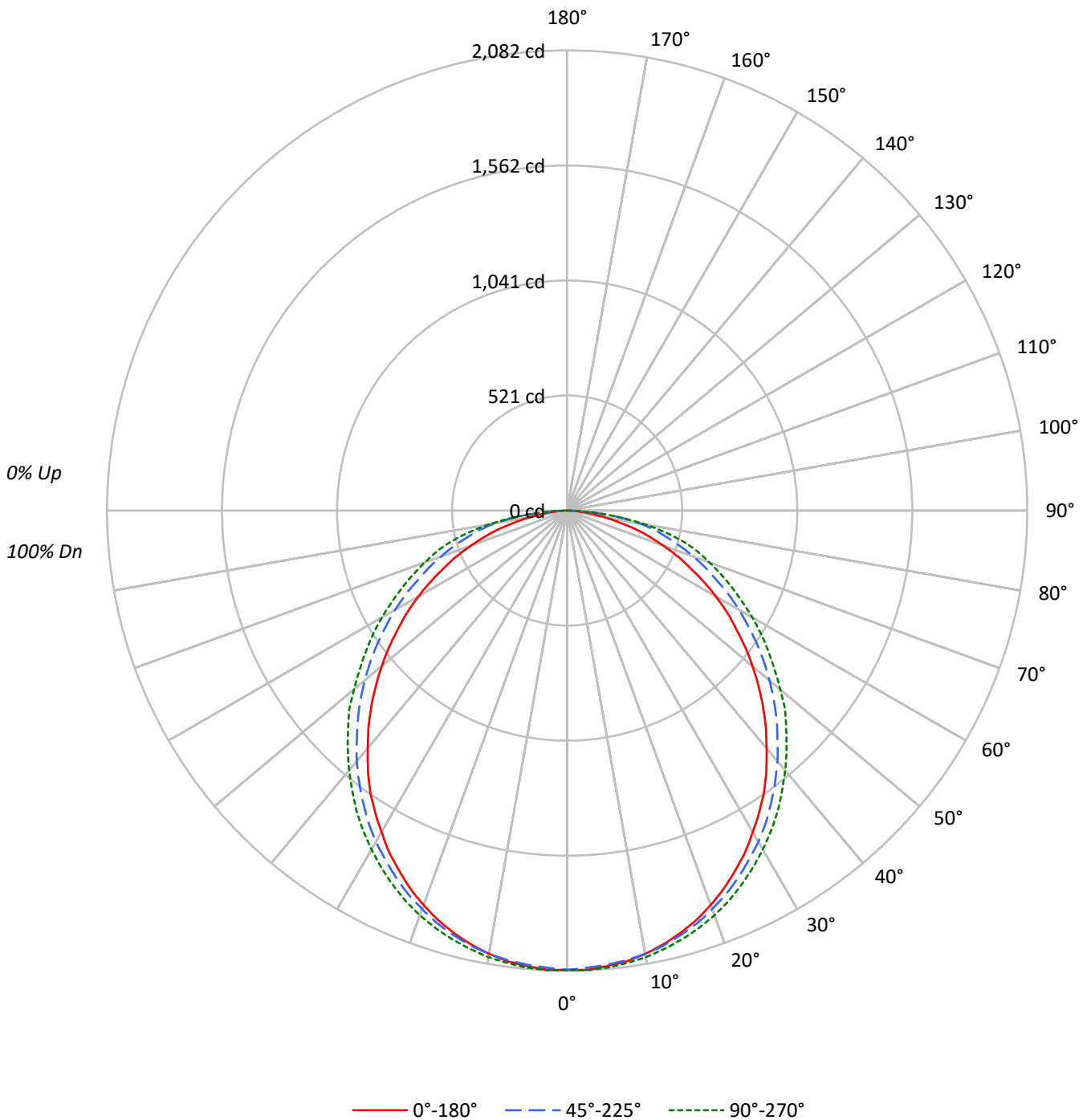
Lumens per Lamp: N/A
Luminaire Lumens: 5915.0 lumens
Efficiency: N/A
Efficacy: 121.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2796	2796	2796
5°	2794	2786	2804
10°	2782	2782	2803
15°	2756	2769	2798
20°	2720	2747	2790
25°	2669	2720	2772
30°	2610	2688	2750
35°	2552	2645	2728
40°	2465	2600	2696
45°	2385	2549	2667
50°	2293	2501	2635
55°	2190	2455	2609
60°	2088	2417	2604
65°	1956	2375	2620
70°	1811	2388	2690
75°	1621	2432	2842
80°	1310	2577	2781
85°	986	2262	2205



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.7	3.3
10°-20°	562.1	9.5
20°-30°	845.0	14.3
30°-40°	1006.5	17.0
40°-50°	1030.1	17.4
50°-60°	927.4	15.7
60°-70°	728.3	12.3
70°-80°	472.7	8.0
80°-90°	146.2	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°	1603.8	27.1
0°-40°	2610.3	44.1
0°-60°	4567.8	77.2
0°-90°	5915.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5915.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2078	2078	2078	2078	2078	
5°	2069	2072	2063	2074	2076	197
15°	1978	1984	1988	2005	2008	558
25°	1798	1813	1832	1862	1868	828
35°	1554	1573	1610	1650	1661	969
45°	1253	1283	1340	1390	1402	966
55°	934	975	1046	1101	1112	837
65°	614	661	746	808	823	612
75°	312	372	468	532	547	330
85°	64	118	146	143	143	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2078.0	2078.0	2078.0	2078.0	2078.0
2.5°	2079.9	2079.9	2070.5	2079.9	2081.7
5°	2068.6	2072.3	2062.9	2074.2	2076.1
7.5°	2057.3	2057.3	2051.7	2062.9	2064.8
10°	2036.6	2038.5	2036.6	2049.8	2051.7
12.5°	2010.3	2014.1	2016.0	2029.1	2031.0
15°	1978.4	1984.0	1987.8	2004.7	2008.5
17.5°	1942.7	1948.3	1957.7	1976.5	1980.3
20°	1899.5	1907.0	1918.3	1942.7	1948.3
22.5°	1852.5	1860.0	1878.8	1901.4	1910.8
25°	1798.0	1813.1	1831.9	1861.9	1867.5
27.5°	1743.5	1756.7	1781.1	1813.1	1820.6
30°	1679.7	1700.3	1730.4	1762.3	1769.9
32.5°	1617.7	1638.3	1674.0	1707.9	1717.2
35°	1553.8	1572.6	1610.2	1649.6	1660.9
37.5°	1480.5	1504.9	1546.3	1585.7	1597.0
40°	1403.5	1433.5	1480.5	1521.8	1535.0
42.5°	1330.2	1362.1	1409.1	1454.2	1469.2
45°	1253.2	1283.2	1339.6	1390.3	1401.6
47.5°	1174.3	1208.1	1268.2	1318.9	1337.7
50°	1095.4	1131.1	1194.9	1247.5	1258.8
52.5°	1016.4	1054.0	1121.7	1178.0	1183.7
55°	933.8	975.1	1046.5	1101.0	1112.3
57.5°	858.6	894.3	971.4	1027.7	1040.9
60°	776.0	815.4	898.1	950.7	967.6
62.5°	697.0	738.4	824.8	877.4	892.4
65°	614.4	661.3	745.9	807.9	822.9
67.5°	543.0	588.1	678.3	738.4	753.4
70°	460.3	511.0	606.9	668.9	683.9
72.5°	388.9	441.5	537.3	597.5	620.0
75°	311.9	372.0	467.8	531.7	546.7
77.5°	236.7	306.2	403.9	452.8	452.8
80°	169.1	242.4	332.6	355.1	358.9
82.5°	110.9	182.2	246.1	244.2	244.2
85°	63.9	118.4	146.5	142.8	142.8
87.5°	24.4	48.8	52.6	52.6	50.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)