

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: P272182

Luminaire Tested: **24CZ2-65HE-S-UNV-L935-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: P272182
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-L935-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (392) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

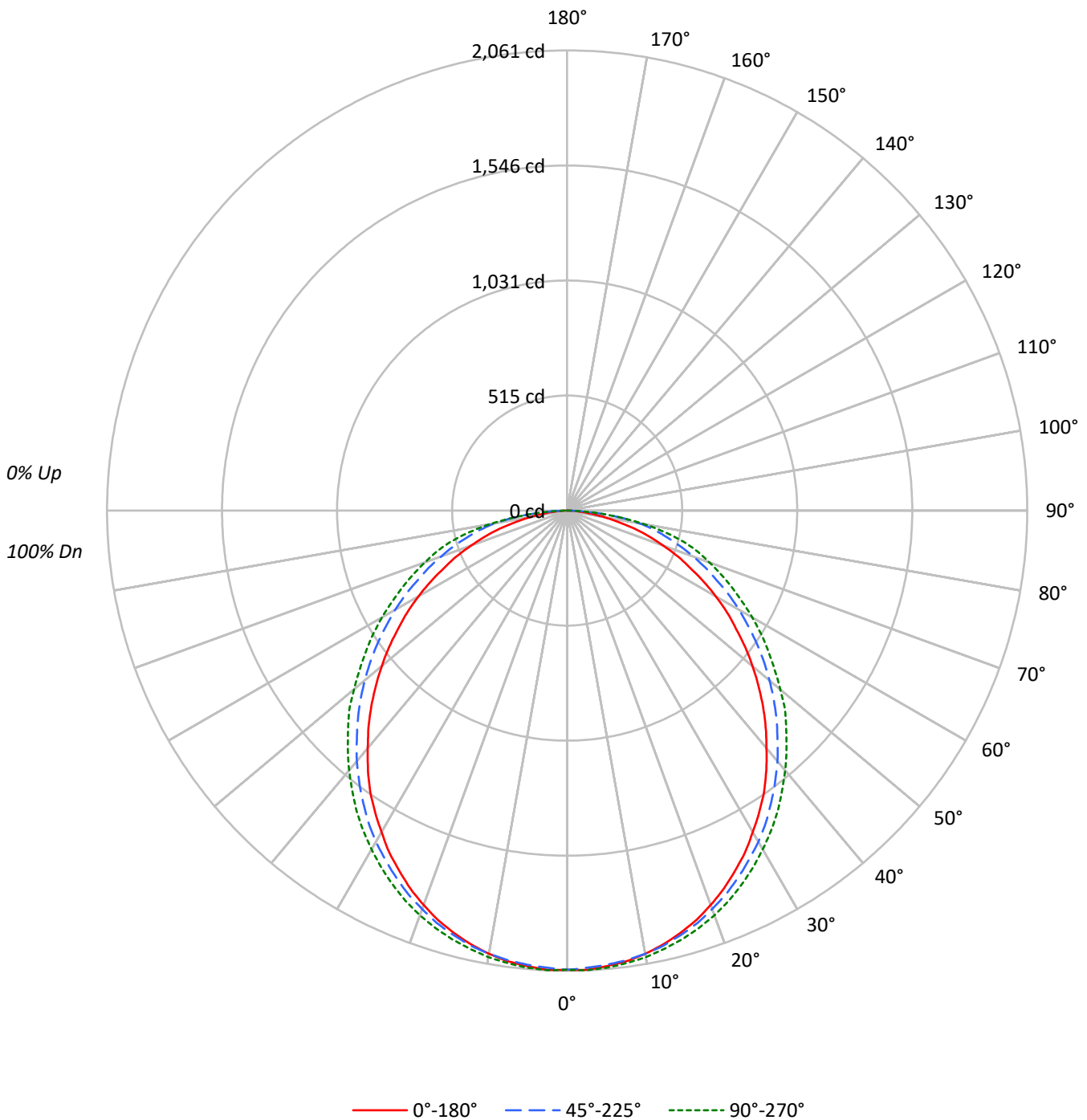
Lumens per Lamp: N/A
Luminaire Lumens: 5855.0 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	2768	2768	2768
5°	2766	2758	2776
10°	2754	2754	2775
15°	2728	2741	2769
20°	2692	2719	2761
25°	2642	2692	2744
30°	2583	2661	2722
35°	2526	2618	2700
40°	2440	2574	2669
45°	2360	2523	2640
50°	2269	2476	2608
55°	2168	2430	2583
60°	2067	2392	2577
65°	1936	2351	2593
70°	1792	2363	2663
75°	1605	2407	2813
80°	1297	2551	2752
85°	976	2240	2181



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.7	3.3
10°-20°	556.4	9.5
20°-30°	836.4	14.3
30°-40°	996.3	17.0
40°-50°	1019.7	17.4
50°-60°	918.0	15.7
60°-70°	720.9	12.3
70°-80°	467.9	8.0
80°-90°	144.7	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°	1587.5	27.1
0°-40°	2583.8	44.1
0°-60°	4521.5	77.2
0°-90°	5855.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5855.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2057	2057	2057	2057	2057	
5°	2048	2051	2042	2053	2055	195
15°	1958	1964	1968	1984	1988	552
25°	1780	1795	1813	1843	1849	820
35°	1538	1557	1594	1633	1644	959
45°	1240	1270	1326	1376	1387	956
55°	924	965	1036	1090	1101	829
65°	608	655	738	800	815	605
75°	309	368	463	526	541	327
85°	63	117	145	141	141	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2056.9	2056.9	2056.9	2056.9	2056.9
2.5°	2058.8	2058.8	2049.5	2058.8	2060.6
5°	2047.6	2051.3	2042.0	2053.2	2055.0
7.5°	2036.4	2036.4	2030.9	2042.0	2043.9
10°	2016.0	2017.8	2016.0	2029.0	2030.9
12.5°	1989.9	1993.7	1995.5	2008.5	2010.4
15°	1958.3	1963.9	1967.6	1984.4	1988.1
17.5°	1923.0	1928.6	1937.9	1956.5	1960.2
20°	1880.2	1887.7	1898.8	1923.0	1928.6
22.5°	1833.7	1841.2	1859.8	1882.1	1891.4
25°	1779.8	1794.7	1813.3	1843.0	1848.6
27.5°	1725.9	1738.9	1763.1	1794.7	1802.1
30°	1662.6	1683.1	1712.8	1744.5	1751.9
32.5°	1601.3	1621.7	1657.1	1690.5	1699.8
35°	1538.0	1556.6	1593.8	1632.9	1644.0
37.5°	1465.5	1489.7	1530.6	1569.6	1580.8
40°	1389.2	1419.0	1465.5	1506.4	1519.4
42.5°	1316.7	1348.3	1394.8	1439.5	1454.3
45°	1240.5	1270.2	1326.0	1376.2	1387.4
47.5°	1162.4	1195.8	1255.3	1305.6	1324.2
50°	1084.2	1119.6	1182.8	1234.9	1246.0
52.5°	1006.1	1043.3	1110.3	1166.1	1171.7
55°	924.3	965.2	1035.9	1089.8	1101.0
57.5°	849.9	885.2	961.5	1017.3	1030.3
60°	768.1	807.1	889.0	941.0	957.8
62.5°	690.0	730.9	816.4	868.5	883.4
65°	608.1	654.6	738.3	799.7	814.6
67.5°	537.5	582.1	671.4	730.9	745.8
70°	455.6	505.9	600.7	662.1	677.0
72.5°	385.0	437.0	531.9	591.4	613.7
75°	308.7	368.2	463.1	526.3	541.2
77.5°	234.3	303.1	399.8	448.2	448.2
80°	167.4	239.9	329.2	351.5	355.2
82.5°	109.7	180.4	243.6	241.8	241.8
85°	63.2	117.2	145.1	141.3	141.3
87.5°	24.2	48.4	52.1	52.1	50.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)