

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: P272111

Luminaire Tested: **24CZ2-65HE-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: P272111
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-65HE-UNV-L940-CD1-U
Description: 2'x4' TROFFER LED MODULE,RIBBED 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: 5630.0 lumens
Efficiency: N/A
Efficacy: 115.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

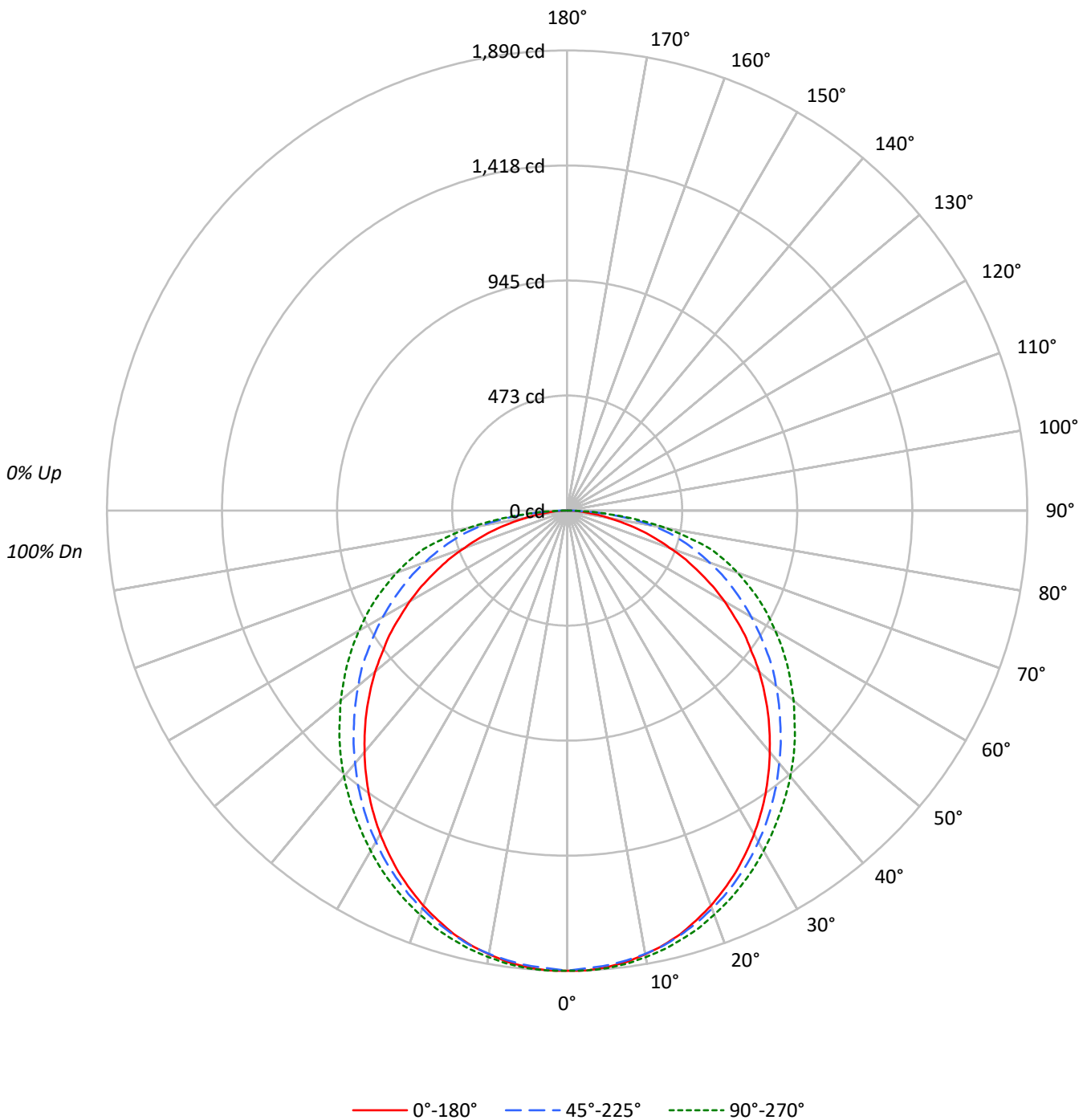
Input Watts (W): 48.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2543	2543	2543
5°	2543	2533	2548
10°	2529	2526	2544
15°	2507	2513	2539
20°	2473	2491	2529
25°	2432	2469	2519
30°	2385	2440	2508
35°	2333	2410	2500
40°	2274	2379	2505
45°	2217	2356	2517
50°	2155	2344	2541
55°	2089	2340	2587
60°	2007	2351	2655
65°	1902	2387	2770
70°	1767	2447	2927
75°	1612	2569	3175
80°	1325	2766	3174
85°	1016	2553	2726



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	178.8	3.2
10°-20°	510.4	9.1
20°-30°	768.0	13.6
30°-40°	920.4	16.3
40°-50°	959.2	17.0
50°-60°	892.4	15.9
60°-70°	735.0	13.1
70°-80°	500.6	8.9
80°-90°	165.3	2.9
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°	1457.2	25.9
0°-40°	2377.6	42.2
0°-60°	4229.2	75.1
0°-90°	5630.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5630.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1890	1890	1890	1890	1890	
5°	1883	1883	1875	1885	1886	179
15°	1800	1802	1804	1821	1823	507
25°	1638	1646	1663	1691	1697	754
35°	1420	1437	1468	1507	1522	888
45°	1165	1189	1238	1300	1323	898
55°	891	921	998	1077	1103	794
65°	598	648	750	838	870	593
75°	310	380	494	582	611	327
85°	66	128	165	177	177	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1890.3	1890.3	1890.3	1890.3	1890.3
2.5°	1890.3	1890.3	1880.9	1890.3	1890.3
5°	1882.7	1882.7	1875.2	1884.6	1886.5
7.5°	1869.6	1871.5	1863.9	1875.2	1877.1
10°	1850.8	1852.7	1848.9	1860.2	1862.1
12.5°	1828.2	1830.1	1830.1	1843.3	1845.2
15°	1800.1	1801.9	1803.8	1820.7	1822.6
17.5°	1764.4	1770.0	1773.8	1794.4	1798.2
20°	1726.8	1732.4	1739.9	1762.5	1766.2
22.5°	1683.6	1691.1	1704.2	1728.7	1734.3
25°	1638.5	1646.0	1662.9	1691.1	1696.7
27.5°	1587.7	1599.0	1619.7	1649.7	1657.3
30°	1535.1	1546.4	1570.8	1602.8	1614.0
32.5°	1478.8	1493.8	1522.0	1557.7	1568.9
35°	1420.5	1437.4	1467.5	1506.9	1522.0
37.5°	1358.5	1377.3	1413.0	1456.2	1475.0
40°	1294.6	1317.2	1354.7	1405.5	1426.1
42.5°	1230.7	1251.4	1298.4	1352.9	1375.4
45°	1165.0	1189.4	1238.2	1300.3	1322.8
47.5°	1097.3	1121.8	1180.0	1245.8	1266.4
50°	1029.7	1054.1	1119.9	1189.4	1213.8
52.5°	956.4	988.3	1063.5	1133.0	1157.5
55°	890.6	920.7	997.7	1076.7	1103.0
57.5°	815.5	851.2	935.7	1018.4	1046.6
60°	746.0	783.5	873.7	958.3	986.5
62.5°	674.6	715.9	811.7	898.2	930.1
65°	597.5	648.2	749.7	838.0	870.0
67.5°	528.0	580.6	687.7	777.9	806.1
70°	449.1	513.0	621.9	712.1	744.1
72.5°	381.4	445.3	559.9	648.2	680.2
75°	310.0	379.6	494.2	582.5	610.7
77.5°	238.6	315.7	430.3	497.9	507.3
80°	171.0	251.8	357.0	396.5	409.6
82.5°	120.3	193.5	263.1	289.4	296.9
85°	65.8	127.8	165.4	176.6	176.6
87.5°	28.2	54.5	65.8	67.6	69.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)