

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: P272109

Luminaire Tested: **24CZ2-65HE-UNV-L930-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: P272109
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-L930-CD1-U
Description: 2'x4' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (392) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5437.9 lumens
Efficiency: N/A
Efficacy: 111.2 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

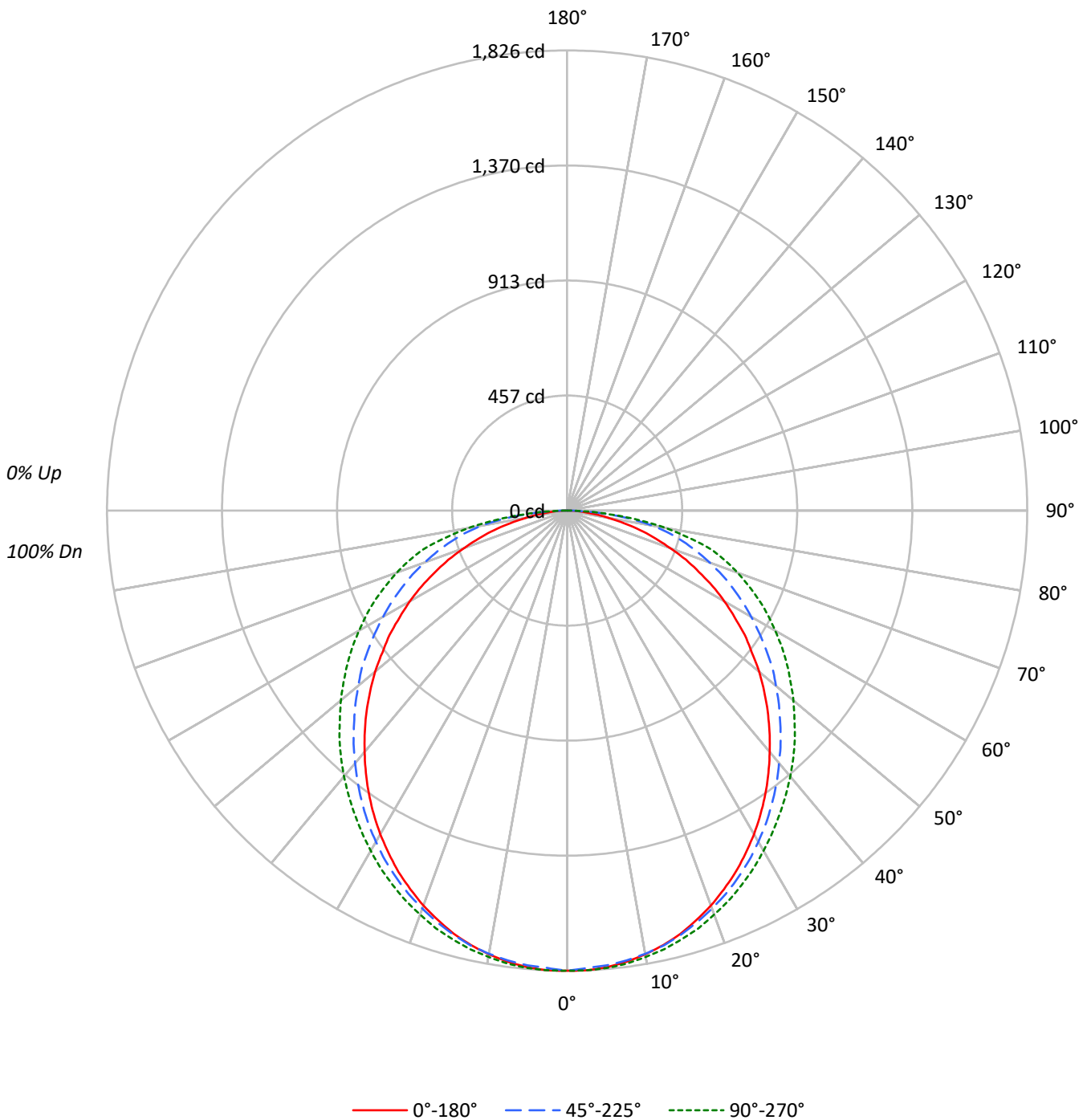
Input Watts (W): 48.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2457	2457	2457
5°	2456	2446	2461
10°	2442	2440	2457
15°	2422	2427	2452
20°	2388	2406	2443
25°	2350	2385	2433
30°	2304	2357	2422
35°	2254	2328	2415
40°	2196	2298	2419
45°	2141	2276	2431
50°	2082	2264	2454
55°	2018	2261	2499
60°	1939	2271	2564
65°	1837	2305	2675
70°	1707	2363	2827
75°	1557	2481	3066
80°	1280	2672	3065
85°	980	2465	2634



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.7	3.2
10°-20°	493.0	9.1
20°-30°	741.9	13.6
30°-40°	889.0	16.3
40°-50°	926.5	17.0
50°-60°	862.0	15.9
60°-70°	709.9	13.1
70°-80°	483.5	8.9
80°-90°	159.6	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°	1407.5	25.9
0°-40°	2296.5	42.2
0°-60°	4084.9	75.1
0°-90°	5437.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5437.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1826	1826	1826	1826	1826	
5°	1818	1818	1811	1820	1822	173
15°	1739	1740	1742	1759	1760	490
25°	1583	1590	1606	1633	1639	729
35°	1372	1388	1417	1456	1470	858
45°	1125	1149	1196	1256	1278	868
55°	860	889	964	1040	1065	767
65°	577	626	724	809	840	573
75°	300	367	477	563	590	316
85°	64	123	160	171	171	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1825.8	1825.8	1825.8	1825.8	1825.8
2.5°	1825.8	1825.8	1816.7	1825.8	1825.8
5°	1818.5	1818.5	1811.3	1820.3	1822.2
7.5°	1805.8	1807.6	1800.4	1811.3	1813.1
10°	1787.7	1789.5	1785.9	1796.8	1798.6
12.5°	1765.9	1767.7	1767.7	1780.4	1782.2
15°	1738.7	1740.5	1742.3	1758.6	1760.5
17.5°	1704.2	1709.6	1713.3	1733.2	1736.9
20°	1667.9	1673.3	1680.6	1702.4	1706.0
22.5°	1626.2	1633.4	1646.1	1669.7	1675.2
25°	1582.6	1589.9	1606.2	1633.4	1638.9
27.5°	1533.6	1544.5	1564.4	1593.5	1600.7
30°	1482.8	1493.7	1517.3	1548.1	1559.0
32.5°	1428.3	1442.8	1470.1	1504.6	1515.4
35°	1372.1	1388.4	1417.4	1455.5	1470.1
37.5°	1312.2	1330.3	1364.8	1406.5	1424.7
40°	1250.5	1272.2	1308.5	1357.5	1377.5
42.5°	1188.8	1208.7	1254.1	1306.7	1328.5
45°	1125.2	1148.8	1196.0	1255.9	1277.7
47.5°	1059.9	1083.5	1139.8	1203.3	1223.2
50°	994.6	1018.2	1081.7	1148.8	1172.4
52.5°	923.8	954.6	1027.2	1094.4	1118.0
55°	860.3	889.3	963.7	1039.9	1065.3
57.5°	787.7	822.1	903.8	983.7	1010.9
60°	720.5	756.8	843.9	925.6	952.8
62.5°	651.5	691.5	784.0	867.5	898.4
65°	577.1	626.1	724.1	809.4	840.3
67.5°	510.0	560.8	664.3	751.4	778.6
70°	433.8	495.5	600.7	687.8	718.7
72.5°	368.4	430.1	540.8	626.1	657.0
75°	299.5	366.6	477.3	562.6	589.8
77.5°	230.5	304.9	415.6	480.9	490.0
80°	165.2	243.2	344.8	382.9	395.6
82.5°	116.2	186.9	254.1	279.5	286.8
85°	63.5	123.4	159.7	170.6	170.6
87.5°	27.2	52.6	63.5	65.3	67.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)