

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: P388925

Luminaire Tested: **24CZ2-65VHE-UNV-L940-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: P388925
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-65VHE-UNV-L940-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

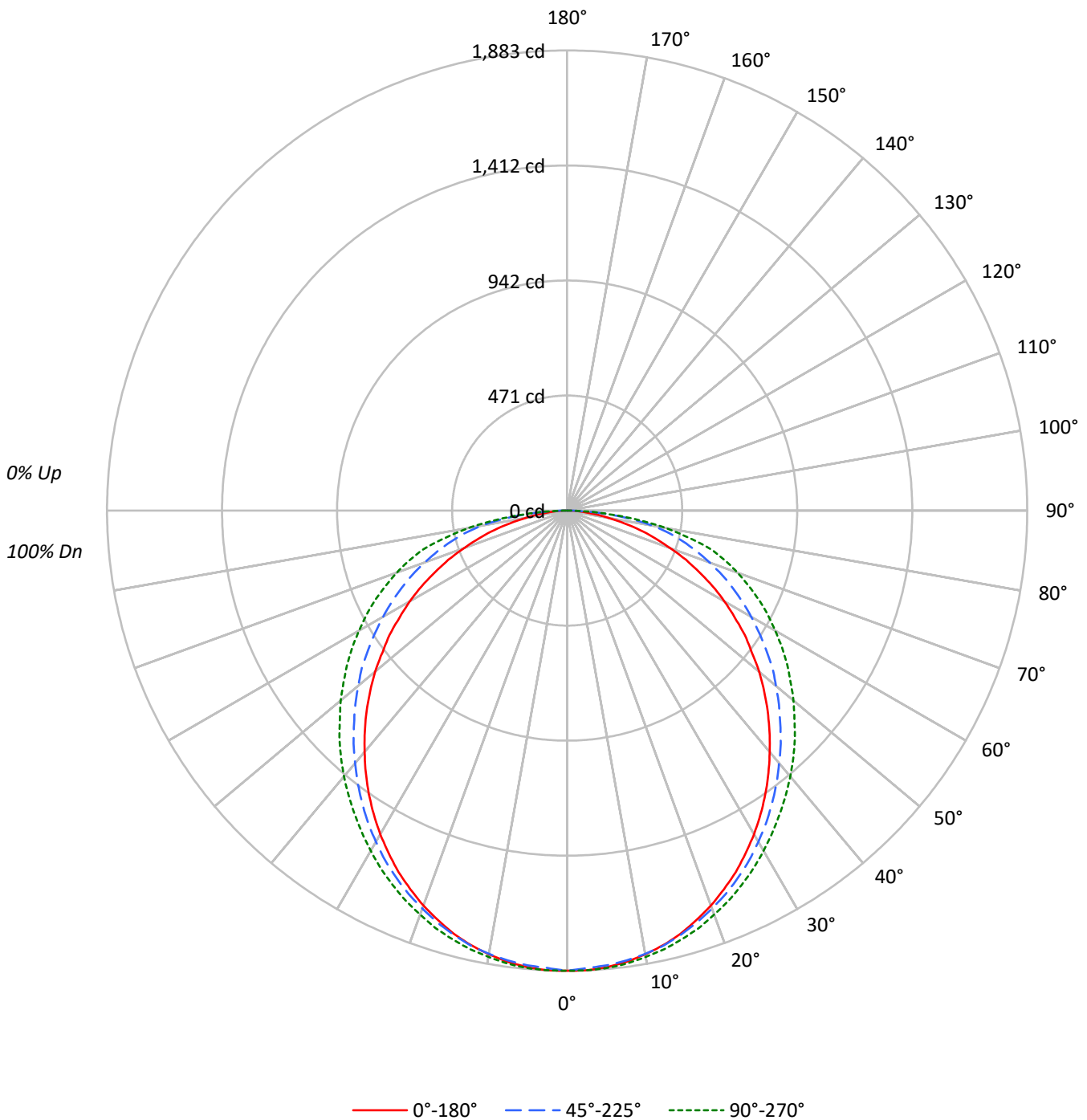
Lumens per Lamp: N/A
Luminaire Lumens: 5608.0 lumens
Efficiency: N/A
Efficacy: 132.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 42.2
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°	2533	2533	2533
5°	2533	2523	2538
10°	2519	2516	2534
15°	2498	2503	2529
20°	2463	2482	2519
25°	2423	2459	2509
30°	2376	2431	2498
35°	2324	2401	2490
40°	2265	2370	2495
45°	2208	2347	2507
50°	2147	2335	2531
55°	2081	2331	2577
60°	1999	2342	2644
65°	1895	2378	2759
70°	1760	2437	2916
75°	1605	2559	3162
80°	1320	2755	3161
85°	1011	2543	2716



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	178.1	3.2
10°-20°	508.4	9.1
20°-30°	765.0	13.6
30°-40°	916.8	16.3
40°-50°	955.4	17.0
50°-60°	888.9	15.9
60°-70°	732.1	13.1
70°-80°	498.6	8.9
80°-90°	164.6	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°	1451.5	25.9
0°-40°	2368.3	42.2
0°-60°	4212.7	75.1
0°-90°	5608.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5608.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1883	1883	1883	1883	1883	
5°	1875	1875	1868	1877	1879	178
15°	1793	1795	1797	1814	1816	505
25°	1632	1640	1656	1684	1690	751
35°	1415	1432	1462	1501	1516	884
45°	1160	1185	1233	1295	1318	895
55°	887	917	994	1072	1099	791
65°	595	646	747	835	867	591
75°	309	378	492	580	608	326
85°	66	127	165	176	176	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1882.9	1882.9	1882.9	1882.9	1882.9
2.5°	1882.9	1882.9	1873.5	1882.9	1882.9
5°	1875.4	1875.4	1867.9	1877.3	1879.1
7.5°	1862.3	1864.2	1856.7	1867.9	1869.8
10°	1843.6	1845.4	1841.7	1852.9	1854.8
12.5°	1821.1	1823.0	1823.0	1836.1	1837.9
15°	1793.0	1794.9	1796.8	1813.6	1815.5
17.5°	1757.5	1763.1	1766.8	1787.4	1791.2
20°	1720.0	1725.6	1733.1	1755.6	1759.3
22.5°	1677.0	1684.5	1697.6	1721.9	1727.5
25°	1632.1	1639.6	1656.4	1684.5	1690.1
27.5°	1581.5	1592.8	1613.4	1643.3	1650.8
30°	1529.1	1540.4	1564.7	1596.5	1607.7
32.5°	1473.0	1488.0	1516.0	1551.6	1562.8
35°	1415.0	1431.8	1461.7	1501.1	1516.0
37.5°	1353.2	1371.9	1407.5	1450.5	1469.2
40°	1289.6	1312.0	1349.4	1400.0	1420.6
42.5°	1225.9	1246.5	1293.3	1347.6	1370.0
45°	1160.4	1184.7	1233.4	1295.2	1317.6
47.5°	1093.0	1117.4	1175.4	1240.9	1261.5
50°	1025.7	1050.0	1115.5	1184.7	1209.1
52.5°	952.7	984.5	1059.3	1128.6	1152.9
55°	887.2	917.1	993.8	1072.4	1098.7
57.5°	812.3	847.9	932.1	1014.4	1042.5
60°	743.0	780.5	870.3	954.5	982.6
62.5°	671.9	713.1	808.5	894.6	926.5
65°	595.2	645.7	746.8	834.7	866.6
67.5°	525.9	578.3	685.0	774.9	802.9
70°	447.3	511.0	619.5	709.4	741.2
72.5°	379.9	443.6	557.7	645.7	677.5
75°	308.8	378.1	492.2	580.2	608.3
77.5°	237.7	314.4	428.6	496.0	505.3
80°	170.3	250.8	355.6	394.9	408.0
82.5°	119.8	192.8	262.0	288.2	295.7
85°	65.5	127.3	164.7	175.9	175.9
87.5°	28.1	54.3	65.5	67.4	69.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)