

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: P389955

Luminaire Tested: **24CZ2-85VHE-S-UNV-L940-CD1-SDWPD1-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: P389955
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-85VHE-S-UNV-L940-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7531.4 lumens
Efficiency: N/A
Efficacy: 130.1 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

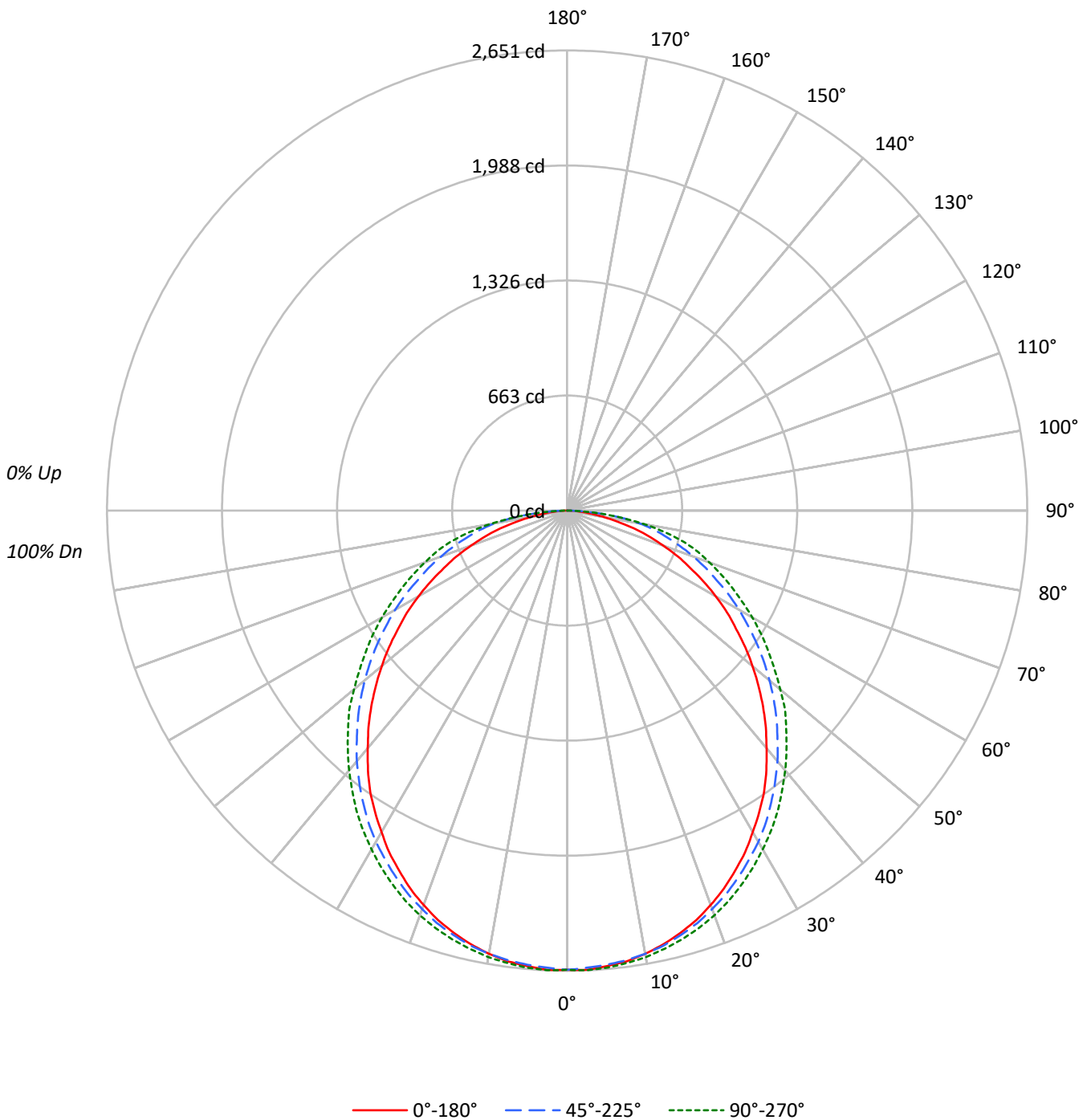
Input Watts (W): 57.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3560	3560	3560
5°	3557	3548	3570
10°	3543	3543	3569
15°	3509	3526	3562
20°	3463	3497	3552
25°	3399	3463	3530
30°	3323	3423	3501
35°	3250	3368	3474
40°	3139	3311	3433
45°	3036	3246	3396
50°	2919	3185	3355
55°	2789	3126	3322
60°	2659	3077	3315
65°	2491	3024	3336
70°	2306	3040	3426
75°	2064	3097	3619
80°	1668	3281	3540
85°	1255	2881	2807



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	250.5	3.3
10°-20°	715.7	9.5
20°-30°	1075.9	14.3
30°-40°	1281.6	17.0
40°-50°	1311.6	17.4
50°-60°	1180.8	15.7
60°-70°	927.3	12.3
70°-80°	601.8	8.0
80°-90°	186.1	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°	2042.1	27.1
0°-40°	3323.6	44.1
0°-60°	5816.1	77.2
0°-90°	7531.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7531.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2646	2646	2646	2646	2646	
5°	2634	2639	2627	2641	2643	250
15°	2519	2526	2531	2552	2557	710
25°	2289	2308	2332	2371	2378	1055
35°	1978	2002	2050	2100	2115	1234
45°	1596	1634	1706	1770	1785	1230
55°	1189	1242	1332	1402	1416	1066
65°	782	842	950	1029	1048	779
75°	397	474	596	677	696	420
85°	81	151	187	182	182	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2645.8	2645.8	2645.8	2645.8	2645.8
2.5°	2648.2	2648.2	2636.3	2648.2	2650.6
5°	2633.9	2638.7	2626.7	2641.0	2643.4
7.5°	2619.5	2619.5	2612.3	2626.7	2629.1
10°	2593.2	2595.6	2593.2	2609.9	2612.3
12.5°	2559.7	2564.5	2566.9	2583.6	2586.0
15°	2519.0	2526.2	2531.0	2552.5	2557.3
17.5°	2473.6	2480.8	2492.7	2516.6	2521.4
20°	2418.6	2428.1	2442.5	2473.6	2480.8
22.5°	2358.8	2368.3	2392.3	2421.0	2432.9
25°	2289.4	2308.5	2332.4	2370.7	2377.9
27.5°	2220.0	2236.8	2267.9	2308.5	2318.1
30°	2138.7	2165.0	2203.3	2243.9	2253.5
32.5°	2059.7	2086.0	2131.5	2174.6	2186.5
35°	1978.4	2002.3	2050.2	2100.4	2114.8
37.5°	1885.1	1916.2	1968.8	2019.1	2033.4
40°	1787.0	1825.3	1885.1	1937.7	1954.5
42.5°	1693.7	1734.4	1794.2	1851.6	1870.7
45°	1595.6	1633.9	1705.7	1770.3	1784.6
47.5°	1495.2	1538.2	1614.8	1679.4	1703.3
50°	1394.7	1440.1	1521.5	1588.5	1602.8
52.5°	1294.2	1342.1	1428.2	1499.9	1507.1
55°	1188.9	1241.6	1332.5	1401.9	1416.2
57.5°	1093.3	1138.7	1236.8	1308.6	1325.3
60°	988.0	1038.2	1143.5	1210.5	1232.0
62.5°	887.5	940.2	1050.2	1117.2	1136.3
65°	782.3	842.1	949.7	1028.7	1047.8
67.5°	691.4	748.8	863.6	940.2	959.3
70°	586.1	650.7	772.7	851.6	870.8
72.5°	495.2	562.2	684.2	760.7	789.4
75°	397.1	473.7	595.7	677.0	696.1
77.5°	301.4	389.9	514.3	576.5	576.5
80°	215.3	308.6	423.4	452.1	456.9
82.5°	141.1	232.0	313.4	311.0	311.0
85°	81.3	150.7	186.6	181.8	181.8
87.5°	31.1	62.2	67.0	67.0	64.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)