

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: P389926

Luminaire Tested: **24CZ2-80VHE-S-UNV-L930-CD1-SWPD1-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: P389926
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: 24CZ2-80VHE-S-UNV-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6959.0 lumens
Efficiency: N/A
Efficacy: 129.3 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

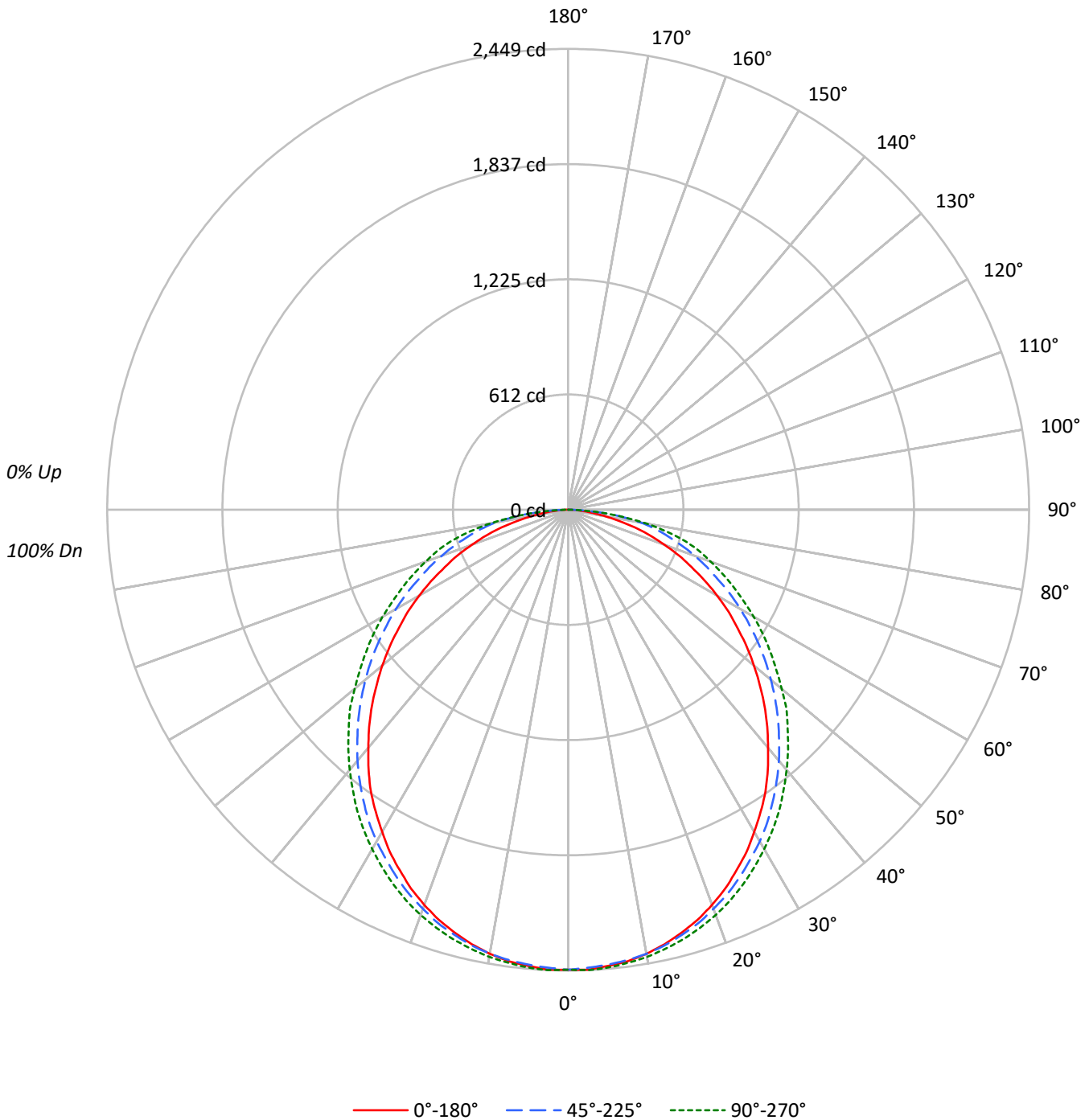
Input Watts (W): 53.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3289	3289	3289
5°	3287	3278	3299
10°	3274	3274	3298
15°	3242	3258	3292
20°	3200	3232	3282
25°	3140	3200	3262
30°	3070	3163	3235
35°	3003	3111	3210
40°	2900	3059	3172
45°	2806	2999	3138
50°	2698	2943	3100
55°	2577	2888	3070
60°	2457	2843	3063
65°	2301	2794	3082
70°	2131	2809	3165
75°	1907	2861	3344
80°	1541	3031	3271
85°	1161	2661	2594



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.4	3.3
10°-20°	661.3	9.5
20°-30°	994.1	14.3
30°-40°	1184.1	17.0
40°-50°	1211.9	17.4
50°-60°	1091.1	15.7
60°-70°	856.9	12.3
70°-80°	556.1	8.0
80°-90°	172.0	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°	1886.9	27.1
0°-40°	3071.0	44.1
0°-60°	5374.0	77.2
0°-90°	6959.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6959.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2445	2445	2445	2445	2445	
5°	2434	2438	2427	2440	2442	231
15°	2328	2334	2339	2358	2363	656
25°	2115	2133	2155	2190	2197	975
35°	1828	1850	1894	1941	1954	1140
45°	1474	1510	1576	1636	1649	1137
55°	1099	1147	1231	1295	1309	985
65°	723	778	878	950	968	720
75°	367	438	550	626	643	388
85°	75	139	172	168	168	91
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2444.7	2444.7	2444.7	2444.7	2444.7
2.5°	2447.0	2447.0	2435.9	2447.0	2449.2
5°	2433.7	2438.1	2427.1	2440.3	2442.5
7.5°	2420.4	2420.4	2413.8	2427.1	2429.3
10°	2396.1	2398.3	2396.1	2411.6	2413.8
12.5°	2365.2	2369.6	2371.8	2387.3	2389.5
15°	2327.6	2334.2	2338.6	2358.5	2363.0
17.5°	2285.6	2292.2	2303.3	2325.4	2329.8
20°	2234.8	2243.6	2256.9	2285.6	2292.2
22.5°	2179.5	2188.3	2210.4	2237.0	2248.0
25°	2115.4	2133.1	2155.2	2190.5	2197.2
27.5°	2051.3	2066.8	2095.5	2133.1	2141.9
30°	1976.1	2000.4	2035.8	2073.4	2082.2
32.5°	1903.2	1927.5	1969.5	2009.3	2020.3
35°	1828.0	1850.1	1894.3	1940.8	1954.0
37.5°	1741.8	1770.6	1819.2	1865.6	1878.9
40°	1651.2	1686.6	1741.8	1790.5	1805.9
42.5°	1565.0	1602.6	1657.8	1710.9	1728.6
45°	1474.4	1509.7	1576.0	1635.7	1649.0
47.5°	1381.5	1421.3	1492.0	1551.7	1573.8
50°	1288.7	1330.7	1405.8	1467.7	1481.0
52.5°	1195.8	1240.1	1319.6	1385.9	1392.6
55°	1098.6	1147.2	1231.2	1295.3	1308.6
57.5°	1010.2	1052.2	1142.8	1209.1	1224.6
60°	912.9	959.3	1056.6	1118.5	1138.4
62.5°	820.1	868.7	970.4	1032.3	1050.0
65°	722.8	778.1	877.5	950.5	968.2
67.5°	638.8	691.9	798.0	868.7	886.4
70°	541.6	601.2	714.0	786.9	804.6
72.5°	457.6	519.5	632.2	702.9	729.4
75°	366.9	437.7	550.4	625.6	643.2
77.5°	278.5	360.3	475.2	532.7	532.7
80°	198.9	285.1	391.2	417.8	422.2
82.5°	130.4	214.4	289.6	287.4	287.4
85°	75.2	139.3	172.4	168.0	168.0
87.5°	28.7	57.5	61.9	61.9	59.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)