

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: P389015

Luminaire Tested: **24CZ2-85VHE-UNV-L930-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: P389015
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: 24CZ2-85VHE-UNV-L930-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

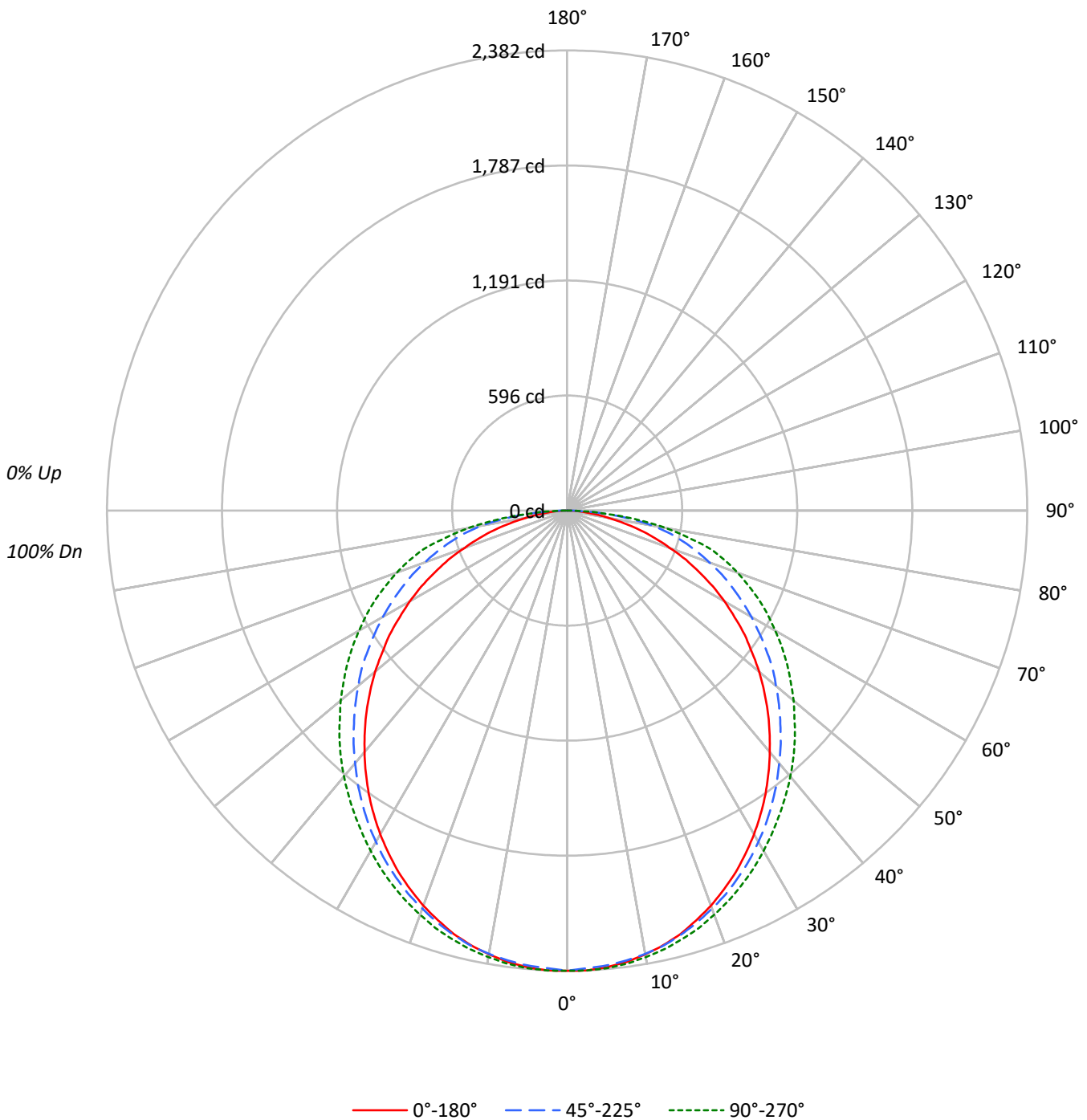
Lumens per Lamp: N/A
Luminaire Lumens: 7095.6 lumens
Efficiency: N/A
Efficacy: 122.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	3205	3205	3205
5°	3205	3192	3211
10°	3187	3184	3206
15°	3160	3167	3200
20°	3116	3140	3187
25°	3066	3111	3175
30°	3006	3076	3160
35°	2941	3038	3151
40°	2866	2999	3157
45°	2794	2970	3172
50°	2716	2954	3202
55°	2633	2950	3261
60°	2530	2963	3346
65°	2398	3008	3491
70°	2227	3083	3689
75°	2031	3238	4001
80°	1670	3486	4000
85°	1280	3217	3436



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.3	3.2
10°-20°	643.2	9.1
20°-30°	968.0	13.6
30°-40°	1160.0	16.3
40°-50°	1208.9	17.0
50°-60°	1124.7	15.9
60°-70°	926.3	13.1
70°-80°	630.9	8.9
80°-90°	208.3	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°	1836.5	25.9
0°-40°	2996.6	42.2
0°-60°	5330.1	75.1
0°-90°	7095.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7095.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2382	2382	2382	2382	2382	
5°	2373	2373	2363	2375	2378	225
15°	2269	2271	2273	2295	2297	639
25°	2065	2074	2096	2131	2138	951
35°	1790	1812	1850	1899	1918	1119
45°	1468	1499	1561	1639	1667	1132
55°	1122	1160	1258	1357	1390	1001
65°	753	817	945	1056	1096	748
75°	391	478	623	734	770	412
85°	83	161	208	223	223	103
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2382.3	2382.3	2382.3	2382.3	2382.3
2.5°	2382.3	2382.3	2370.5	2382.3	2382.3
5°	2372.9	2372.9	2363.4	2375.2	2377.6
7.5°	2356.3	2358.6	2349.2	2363.4	2365.7
10°	2332.6	2335.0	2330.2	2344.4	2346.8
12.5°	2304.2	2306.5	2306.5	2323.1	2325.5
15°	2268.7	2271.0	2273.4	2294.7	2297.1
17.5°	2223.7	2230.8	2235.5	2261.5	2266.3
20°	2176.3	2183.4	2192.9	2221.3	2226.0
22.5°	2121.8	2131.3	2147.9	2178.7	2185.8
25°	2065.0	2074.5	2095.8	2131.3	2138.4
27.5°	2001.1	2015.3	2041.3	2079.2	2088.7
30°	1934.7	1949.0	1979.7	2020.0	2034.2
32.5°	1863.7	1882.7	1918.2	1963.2	1977.4
35°	1790.3	1811.6	1849.5	1899.2	1918.2
37.5°	1712.1	1735.8	1780.8	1835.3	1859.0
40°	1631.6	1660.0	1707.4	1771.3	1797.4
42.5°	1551.1	1577.2	1636.4	1705.0	1733.5
45°	1468.2	1499.0	1560.6	1638.7	1667.2
47.5°	1383.0	1413.8	1487.2	1570.1	1596.1
50°	1297.7	1328.5	1411.4	1499.0	1529.8
52.5°	1205.4	1245.6	1340.4	1428.0	1458.8
55°	1122.5	1160.4	1257.5	1356.9	1390.1
57.5°	1027.8	1072.8	1179.3	1283.5	1319.0
60°	940.1	987.5	1101.2	1207.7	1243.3
62.5°	850.2	902.3	1023.0	1132.0	1172.2
65°	753.1	817.0	944.9	1056.2	1096.4
67.5°	665.4	731.7	866.7	980.4	1015.9
70°	566.0	646.5	783.8	897.5	937.8
72.5°	480.7	561.2	705.7	817.0	857.3
75°	390.7	478.4	622.8	734.1	769.6
77.5°	300.8	397.8	542.3	627.6	639.4
80°	215.5	317.3	449.9	499.7	516.2
82.5°	151.6	243.9	331.5	364.7	374.2
85°	82.9	161.0	208.4	222.6	222.6
87.5°	35.5	68.7	82.9	85.3	87.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)