

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: P389016

Luminaire Tested: **24CZ2-85VHE-UNV-L935-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: P389016
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-L935-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7094.3 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

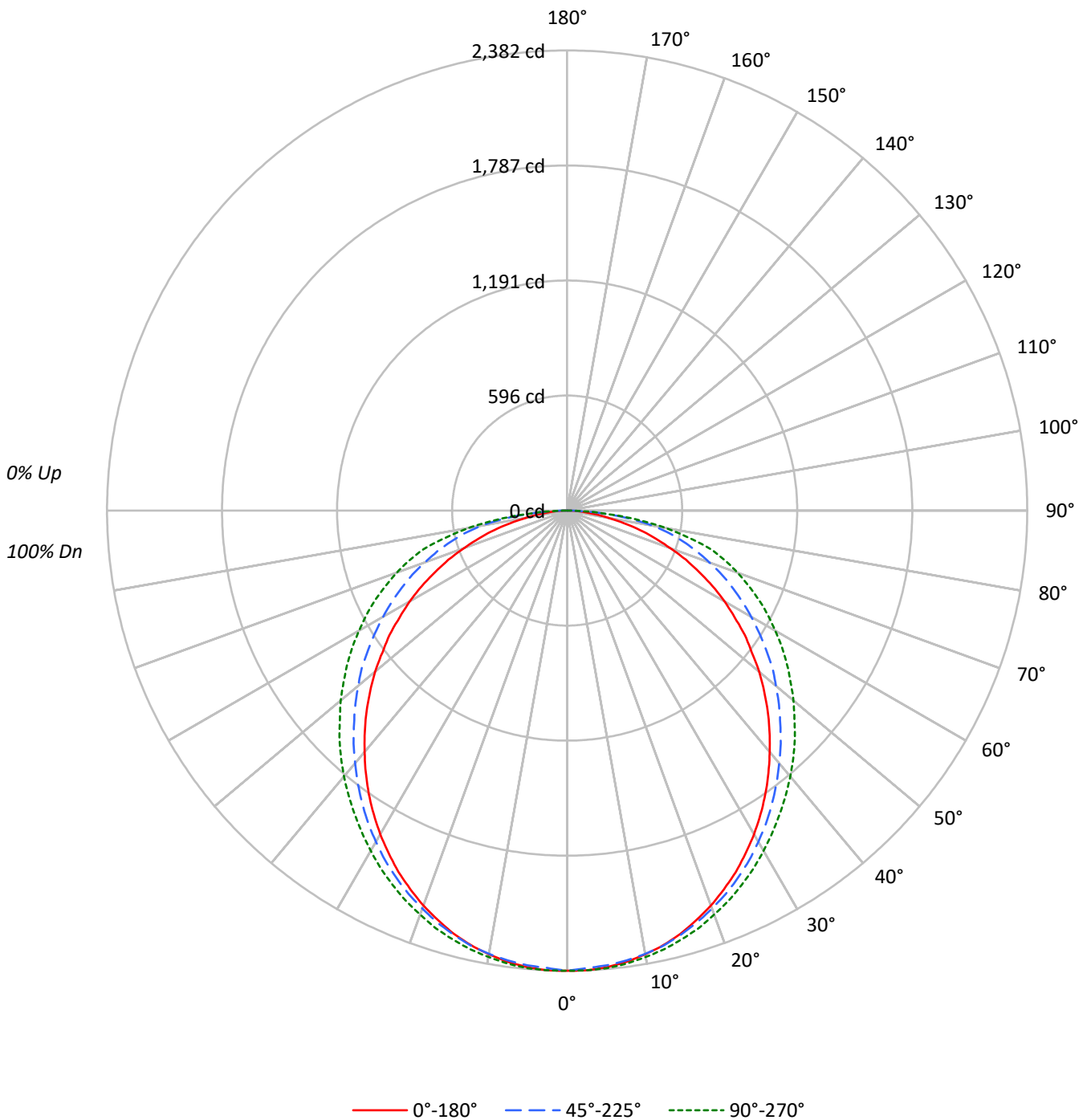
Input Watts (W): 57.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3204	3191	3211
10°	3186	3183	3206
15°	3159	3166	3199
20°	3116	3139	3187
25°	3065	3111	3174
30°	3005	3075	3160
35°	2940	3037	3150
40°	2865	2998	3156
45°	2793	2969	3172
50°	2716	2954	3202
55°	2633	2949	3260
60°	2530	2963	3345
65°	2397	3008	3490
70°	2226	3083	3688
75°	2031	3237	4000
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°	643.1	9.1
20°-30°	967.8	13.6
30°-40°	1159.8	16.3
40°-50°	1208.6	17.0
50°-60°	1124.5	15.9
60°-70°	926.2	13.1
70°-80°	630.8	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°	1836.2	25.9
0°-40°	2996.0	42.2
0°-60°	5329.1	75.1
0°-90°	7094.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7094.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2382	2382	2382	2382	2382	
5°	2372	2372	2363	2375	2377	225
15°	2268	2271	2273	2294	2297	639
25°	2065	2074	2095	2131	2138	950
35°	1790	1811	1849	1899	1918	1119
45°	1468	1499	1560	1638	1667	1132
55°	1122	1160	1257	1357	1390	1000
65°	753	817	945	1056	1096	747
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°	2381.9	2381.9	2381.9	2381.9	2381.9
2.5°	2381.9	2381.9	2370.0	2381.9	2381.9
5°	2372.4	2372.4	2362.9	2374.8	2377.2
7.5°	2355.8	2358.2	2348.7	2362.9	2365.3
10°	2332.2	2334.5	2329.8	2344.0	2346.4
12.5°	2303.8	2306.1	2306.1	2322.7	2325.1
15°	2268.2	2270.6	2273.0	2294.3	2296.6
17.5°	2223.3	2230.4	2235.1	2261.1	2265.9
20°	2175.9	2183.0	2192.5	2220.9	2225.6
22.5°	2121.4	2130.9	2147.5	2178.3	2185.4
25°	2064.6	2074.1	2095.4	2130.9	2138.0
27.5°	2000.7	2014.9	2040.9	2078.8	2088.3
30°	1934.4	1948.6	1979.4	2019.6	2033.8
32.5°	1863.4	1882.3	1917.8	1962.8	1977.0
35°	1790.0	1811.3	1849.2	1898.9	1917.8
37.5°	1711.8	1735.5	1780.5	1835.0	1858.6
40°	1631.3	1659.7	1707.1	1771.0	1797.1
42.5°	1550.8	1576.9	1636.1	1704.7	1733.1
45°	1468.0	1498.7	1560.3	1638.4	1666.8
47.5°	1382.7	1413.5	1486.9	1569.8	1595.8
50°	1297.5	1328.3	1411.1	1498.7	1529.5
52.5°	1205.1	1245.4	1340.1	1427.7	1458.5
55°	1122.3	1160.2	1257.2	1356.7	1389.8
57.5°	1027.6	1072.6	1179.1	1283.3	1318.8
60°	940.0	987.3	1101.0	1207.5	1243.0
62.5°	850.0	902.1	1022.8	1131.8	1172.0
65°	752.9	816.8	944.7	1056.0	1096.2
67.5°	665.3	731.6	866.6	980.2	1015.7
70°	565.9	646.4	783.7	897.4	937.6
72.5°	480.6	561.1	705.6	816.8	857.1
75°	390.7	478.3	622.7	734.0	769.5
77.5°	300.7	397.8	542.2	627.4	639.3
80°	215.5	317.3	449.9	499.6	516.2
82.5°	151.5	243.9	331.5	364.6	374.1
85°	82.9	161.0	208.4	222.6	222.6
87.5°	35.5	68.7	82.9	85.2	87.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)