

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: P388514

Luminaire Tested: **22CZ2-85VHE-UNV-L935-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: P388514
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-85VHE-UNV-L935-CD1-U
Description: 2x2 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: 7283.8 lumens
Efficiency: N/A
Efficacy: 114.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

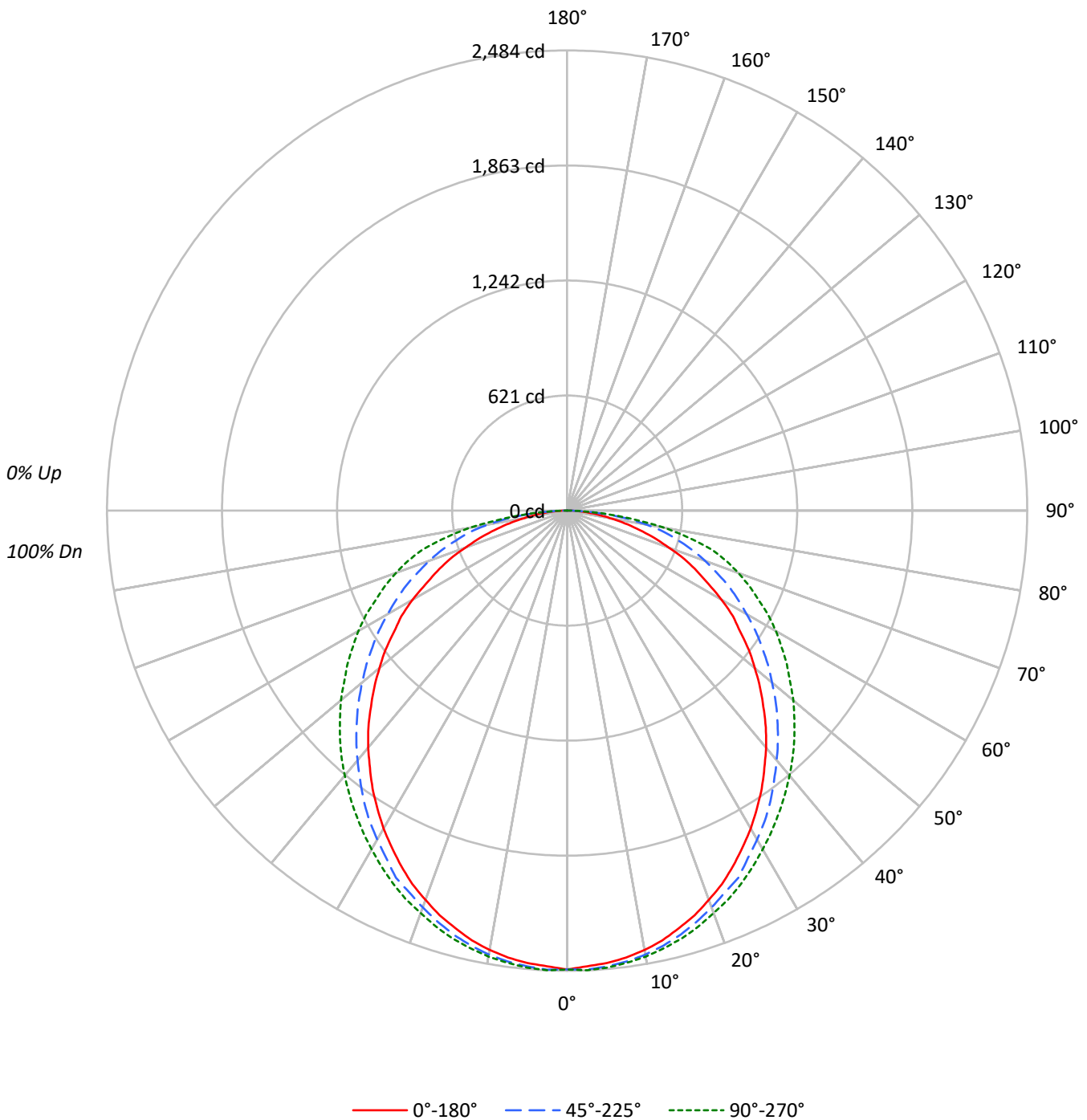
Input Watts (W): 63.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6664	6664	6664
5°	6622	6671	6690
10°	6581	6650	6679
15°	6500	6600	6660
20°	6405	6528	6620
25°	6289	6491	6598
30°	6159	6370	6559
35°	6017	6287	6547
40°	5867	6182	6559
45°	5702	6111	6602
50°	5537	6047	6677
55°	5347	6020	6793
60°	5189	6018	7002
65°	4930	6116	7257
70°	4596	6232	7726
75°	4211	6447	8347
80°	3667	6721	8219
85°	3208	5974	6530



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.2	3.2
10°-20°	667.1	9.2
20°-30°	1001.5	13.7
30°-40°	1196.7	16.4
40°-50°	1244.4	17.1
50°-60°	1153.4	15.8
60°-70°	946.0	13.0
70°-80°	639.5	8.8
80°-90°	201.0	2.8
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°	1902.8	26.1
0°-40°	3099.5	42.6
0°-60°	5497.3	75.5
0°-90°	7283.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7283.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2477	2477	2477	2477	2477	
5°	2452	2455	2470	2473	2477	233
15°	2333	2344	2369	2383	2391	658
25°	2118	2136	2186	2211	2222	975
35°	1832	1857	1914	1971	1993	1145
45°	1498	1527	1606	1699	1735	1157
55°	1140	1176	1283	1398	1448	1024
65°	774	817	960	1086	1140	765
75°	405	473	620	746	803	429
85°	104	143	194	215	212	118
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2476.6	2476.6	2476.6	2476.6	2476.6
2.5°	2462.3	2469.5	2480.2	2483.8	2483.8
5°	2451.5	2455.1	2469.5	2473.0	2476.6
7.5°	2433.6	2440.8	2455.1	2458.7	2462.3
10°	2408.5	2415.7	2433.6	2440.8	2444.4
12.5°	2376.3	2383.4	2404.9	2415.7	2419.3
15°	2333.3	2344.0	2369.1	2383.4	2390.6
17.5°	2290.3	2301.0	2326.1	2347.6	2354.8
20°	2236.5	2261.6	2279.5	2308.2	2311.8
22.5°	2182.7	2197.1	2229.3	2258.0	2272.3
25°	2118.2	2136.1	2186.3	2211.4	2222.2
27.5°	2050.1	2075.2	2114.6	2154.1	2168.4
30°	1982.0	1999.9	2050.1	2096.7	2111.0
32.5°	1906.8	1931.8	1985.6	2032.2	2053.7
35°	1831.5	1856.6	1913.9	1971.3	1992.8
37.5°	1749.1	1777.7	1835.1	1903.2	1931.8
40°	1670.2	1691.7	1759.8	1842.2	1867.3
42.5°	1587.8	1612.9	1684.5	1774.1	1802.8
45°	1498.2	1526.8	1605.7	1698.9	1734.7
47.5°	1412.1	1440.8	1526.8	1620.0	1663.0
50°	1322.5	1358.4	1444.4	1551.9	1594.9
52.5°	1236.5	1268.8	1365.5	1476.7	1516.1
55°	1139.7	1175.6	1283.1	1397.8	1448.0
57.5°	1060.9	1086.0	1204.3	1322.5	1372.7
60°	964.1	996.4	1118.2	1243.7	1301.0
62.5°	860.2	914.0	1039.4	1168.4	1225.8
65°	774.2	817.2	960.5	1086.0	1139.7
67.5°	684.6	731.2	870.9	1003.6	1064.5
70°	584.2	645.1	792.1	924.7	982.0
72.5°	494.6	559.1	709.7	838.7	899.6
75°	405.0	473.1	620.1	745.5	802.8
77.5°	319.0	394.3	537.6	634.4	670.2
80°	236.6	308.2	433.7	501.8	530.4
82.5°	164.9	225.8	319.0	354.8	362.0
85°	103.9	143.4	193.5	215.0	211.5
87.5°	46.6	57.3	71.7	78.9	75.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)