

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: P388533

Luminaire Tested: **22CZ2-90VHE-UNV-L930-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: P388533
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: 22CZ2-90VHE-UNV-L930-CD1-SDWPD1-U
Description: 2x2 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: 7345.7 lumens
Efficiency: N/A
Efficacy: 107.7 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

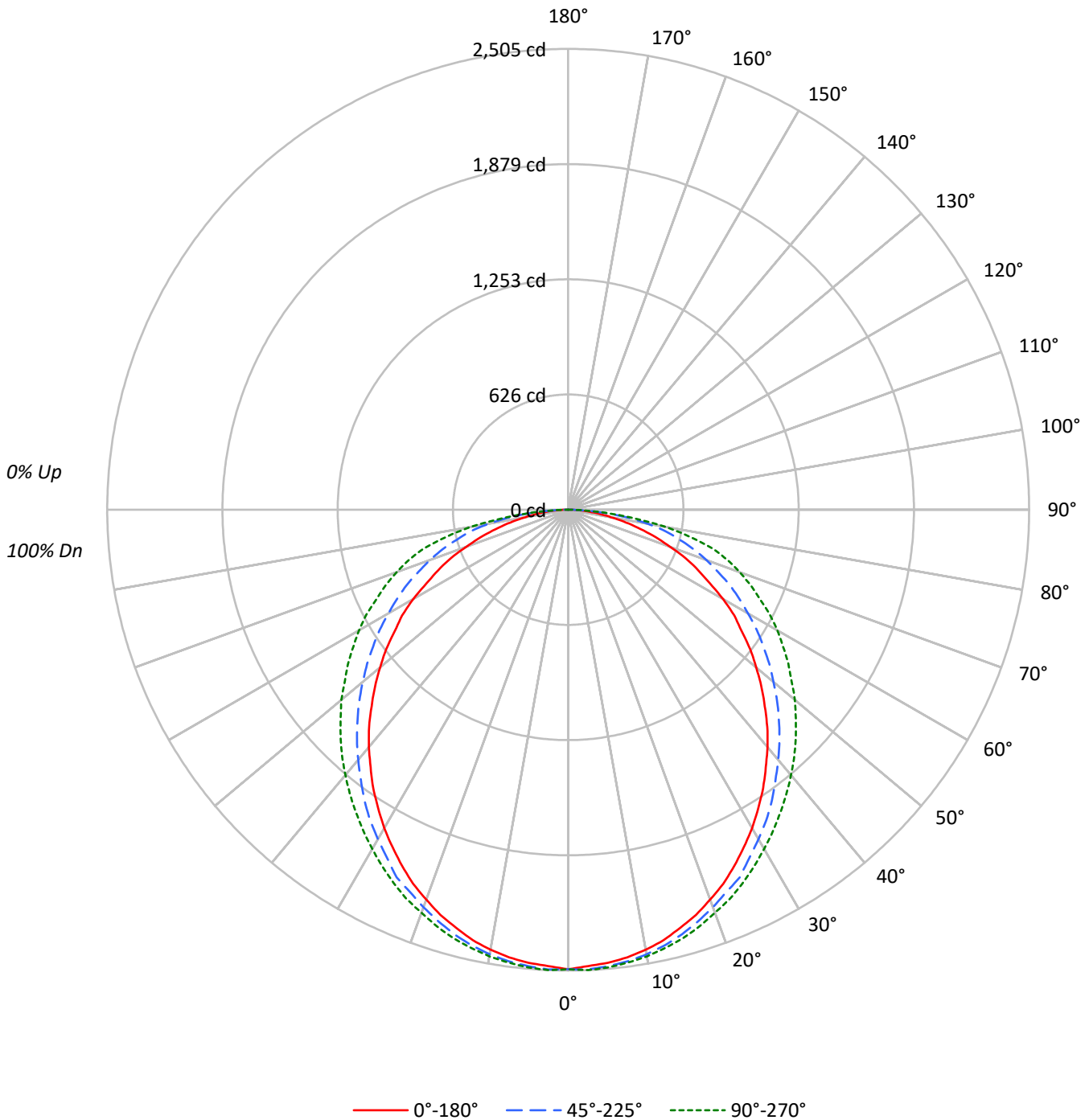
Input Watts (W): 68.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6721	6721	6721
5°	6679	6727	6747
10°	6637	6706	6736
15°	6556	6656	6717
20°	6459	6583	6676
25°	6343	6547	6654
30°	6211	6424	6615
35°	6068	6341	6602
40°	5917	6235	6615
45°	5750	6162	6658
50°	5584	6098	6734
55°	5393	6071	6851
60°	5233	6069	7062
65°	4971	6168	7319
70°	4636	6285	7792
75°	4246	6501	8419
80°	3698	6778	8291
85°	3236	6027	6586



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	236.2	3.2
10°-20°	672.8	9.2
20°-30°	1010.0	13.7
30°-40°	1206.9	16.4
40°-50°	1255.0	17.1
50°-60°	1163.2	15.8
60°-70°	954.1	13.0
70°-80°	645.0	8.8
80°-90°	202.7	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°	1919.0	26.1
0°-40°	3125.9	42.6
0°-60°	5544.0	75.5
0°-90°	7345.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7345.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2498	2498	2498	2498	2498	
5°	2472	2476	2490	2494	2498	235
15°	2353	2364	2389	2404	2411	664
25°	2136	2154	2205	2230	2241	984
35°	1847	1872	1930	1988	2010	1154
45°	1511	1540	1619	1713	1750	1167
55°	1149	1186	1294	1410	1460	1033
65°	781	824	969	1095	1149	772
75°	408	477	625	752	810	433
85°	105	145	195	217	213	119
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2497.7	2497.7	2497.7	2497.7	2497.7
2.5°	2483.2	2490.4	2501.3	2504.9	2504.9
5°	2472.4	2476.0	2490.4	2494.1	2497.7
7.5°	2454.3	2461.5	2476.0	2479.6	2483.2
10°	2429.0	2436.2	2454.3	2461.5	2465.1
12.5°	2396.5	2403.7	2425.4	2436.2	2439.8
15°	2353.1	2363.9	2389.2	2403.7	2410.9
17.5°	2309.7	2320.6	2345.9	2367.5	2374.8
20°	2255.5	2280.8	2298.9	2327.8	2331.4
22.5°	2201.3	2215.7	2248.3	2277.2	2291.6
25°	2136.2	2154.3	2204.9	2230.2	2241.0
27.5°	2067.5	2092.8	2132.6	2172.4	2186.8
30°	1998.9	2016.9	2067.5	2114.5	2129.0
32.5°	1923.0	1948.3	2002.5	2049.5	2071.2
35°	1847.0	1872.4	1930.2	1988.0	2009.7
37.5°	1763.9	1792.8	1850.7	1919.3	1948.3
40°	1684.4	1706.1	1774.8	1857.9	1883.2
42.5°	1601.3	1626.6	1698.9	1789.2	1818.1
45°	1510.9	1539.8	1619.3	1713.3	1749.5
47.5°	1424.1	1453.1	1539.8	1633.8	1677.2
50°	1333.8	1369.9	1456.7	1565.1	1608.5
52.5°	1247.0	1279.6	1377.2	1489.2	1529.0
55°	1149.4	1185.6	1294.0	1409.7	1460.3
57.5°	1069.9	1095.2	1214.5	1333.8	1384.4
60°	972.3	1004.9	1127.7	1254.3	1312.1
62.5°	867.5	921.7	1048.2	1178.4	1236.2
65°	780.7	824.1	968.7	1095.2	1149.4
67.5°	690.4	737.4	878.3	1012.1	1073.5
70°	589.2	650.6	798.8	932.6	990.4
72.5°	498.8	563.9	715.7	845.8	907.3
75°	408.4	477.1	625.3	751.8	809.7
77.5°	321.7	397.6	542.2	639.8	675.9
80°	238.6	310.9	437.4	506.0	535.0
82.5°	166.3	227.7	321.7	357.8	365.1
85°	104.8	144.6	195.2	216.9	213.3
87.5°	47.0	57.8	72.3	79.5	75.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)