

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: P388395

Luminaire Tested: **22CZ2-60VHE-UNV-L940-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: P388395
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: 22CZ2-60VHE-UNV-L940-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5092.4 lumens
Efficiency: N/A
Efficacy: 115.5 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

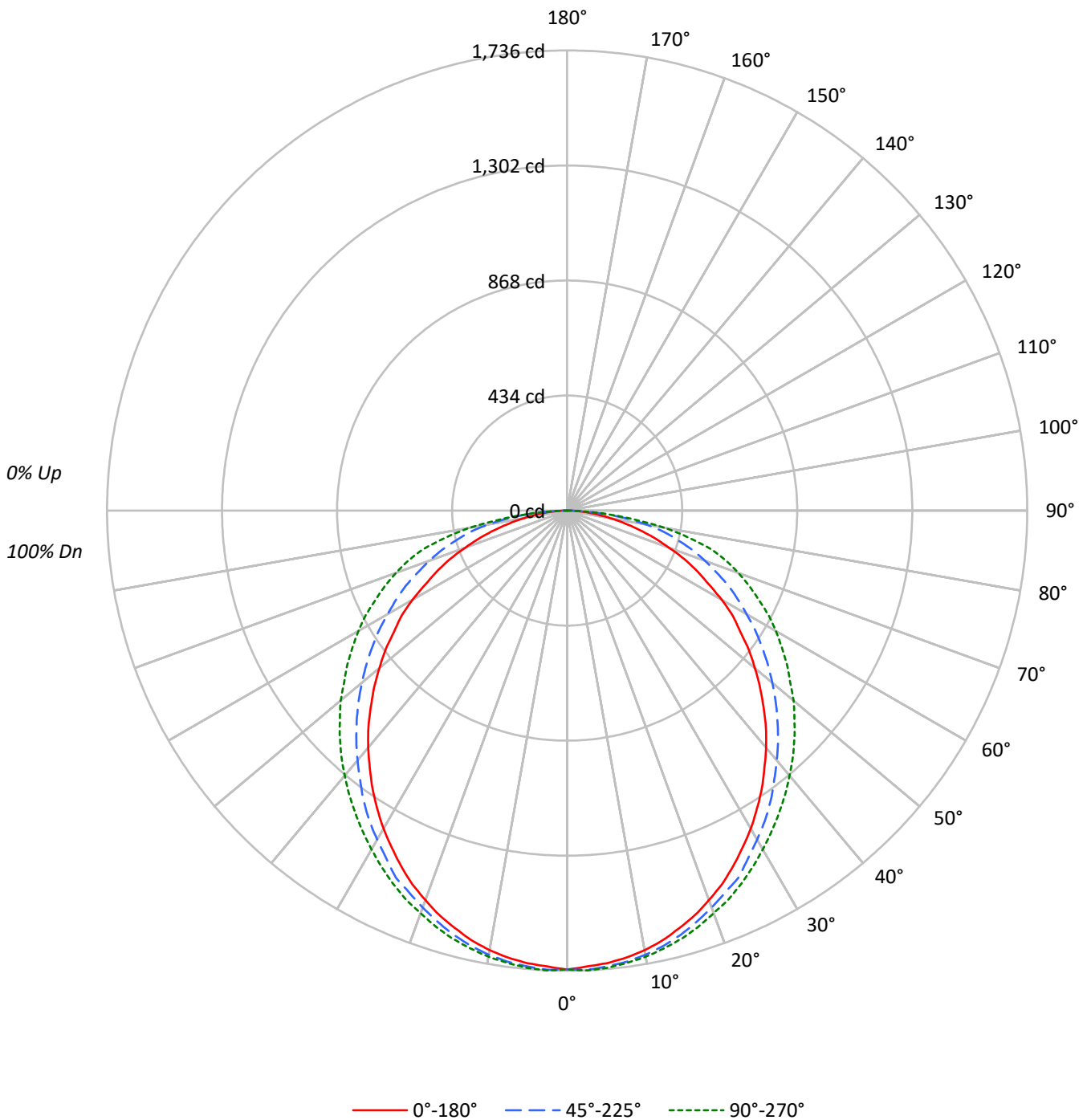
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4659	4659	4659
5°	4630	4664	4677
10°	4601	4649	4670
15°	4545	4614	4656
20°	4478	4564	4628
25°	4397	4538	4613
30°	4306	4454	4586
35°	4207	4396	4577
40°	4102	4322	4586
45°	3986	4272	4615
50°	3871	4227	4668
55°	3738	4209	4749
60°	3628	4208	4895
65°	3447	4276	5074
70°	3213	4357	5402
75°	2944	4507	5836
80°	2563	4699	5748
85°	2245	4177	4563



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.8	3.2
10°-20°	466.4	9.2
20°-30°	700.2	13.7
30°-40°	836.7	16.4
40°-50°	870.0	17.1
50°-60°	806.4	15.8
60°-70°	661.4	13.0
70°-80°	447.1	8.8
80°-90°	140.5	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°	1330.4	26.1
0°-40°	2167.0	42.6
0°-60°	3843.4	75.5
0°-90°	5092.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5092.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1732	1732	1732	1732	1732	
5°	1714	1716	1726	1729	1732	163
15°	1631	1639	1656	1666	1671	460
25°	1481	1494	1528	1546	1554	682
35°	1280	1298	1338	1378	1393	800
45°	1047	1068	1123	1188	1213	809
55°	797	822	897	977	1012	716
65°	541	571	672	759	797	535
75°	283	331	434	521	561	300
85°	73	100	135	150	148	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1731.5	1731.5	1731.5	1731.5	1731.5
2.5°	1721.5	1726.5	1734.0	1736.5	1736.5
5°	1714.0	1716.5	1726.5	1729.0	1731.5
7.5°	1701.4	1706.5	1716.5	1719.0	1721.5
10°	1683.9	1688.9	1701.4	1706.5	1709.0
12.5°	1661.3	1666.4	1681.4	1688.9	1691.4
15°	1631.3	1638.8	1656.3	1666.4	1671.4
17.5°	1601.2	1608.7	1626.3	1641.3	1646.3
20°	1563.6	1581.2	1593.7	1613.7	1616.2
22.5°	1526.0	1536.1	1558.6	1578.7	1588.7
25°	1480.9	1493.5	1528.5	1546.1	1553.6
27.5°	1433.3	1450.9	1478.4	1506.0	1516.0
30°	1385.7	1398.2	1433.3	1465.9	1475.9
32.5°	1333.1	1350.6	1388.2	1420.8	1435.8
35°	1280.5	1298.0	1338.1	1378.2	1393.2
37.5°	1222.8	1242.9	1283.0	1330.6	1350.6
40°	1167.7	1182.7	1230.3	1288.0	1305.5
42.5°	1110.1	1127.6	1177.7	1240.4	1260.4
45°	1047.4	1067.5	1122.6	1187.8	1212.8
47.5°	987.3	1007.3	1067.5	1132.6	1162.7
50°	924.6	949.7	1009.8	1085.0	1115.1
52.5°	864.5	887.1	954.7	1032.4	1060.0
55°	796.8	821.9	897.1	977.3	1012.3
57.5°	741.7	759.3	841.9	924.6	959.7
60°	674.1	696.6	781.8	869.5	909.6
62.5°	601.4	639.0	726.7	816.9	857.0
65°	541.3	571.3	671.6	759.3	796.8
67.5°	478.6	511.2	608.9	701.6	744.2
70°	408.4	451.0	553.8	646.5	686.6
72.5°	345.8	390.9	496.1	586.4	629.0
75°	283.2	330.8	433.5	521.2	561.3
77.5°	223.0	275.6	375.9	443.5	468.6
80°	165.4	215.5	303.2	350.8	370.9
82.5°	115.3	157.9	223.0	248.1	253.1
85°	72.7	100.2	135.3	150.3	147.8
87.5°	32.6	40.1	50.1	55.1	52.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)