

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: P389328

Luminaire Tested: **22CZ2-60VHE-S-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: P389328
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-60VHE-S-UNV-L935-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5296.0 lumens
Efficiency: N/A
Efficacy: 120.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

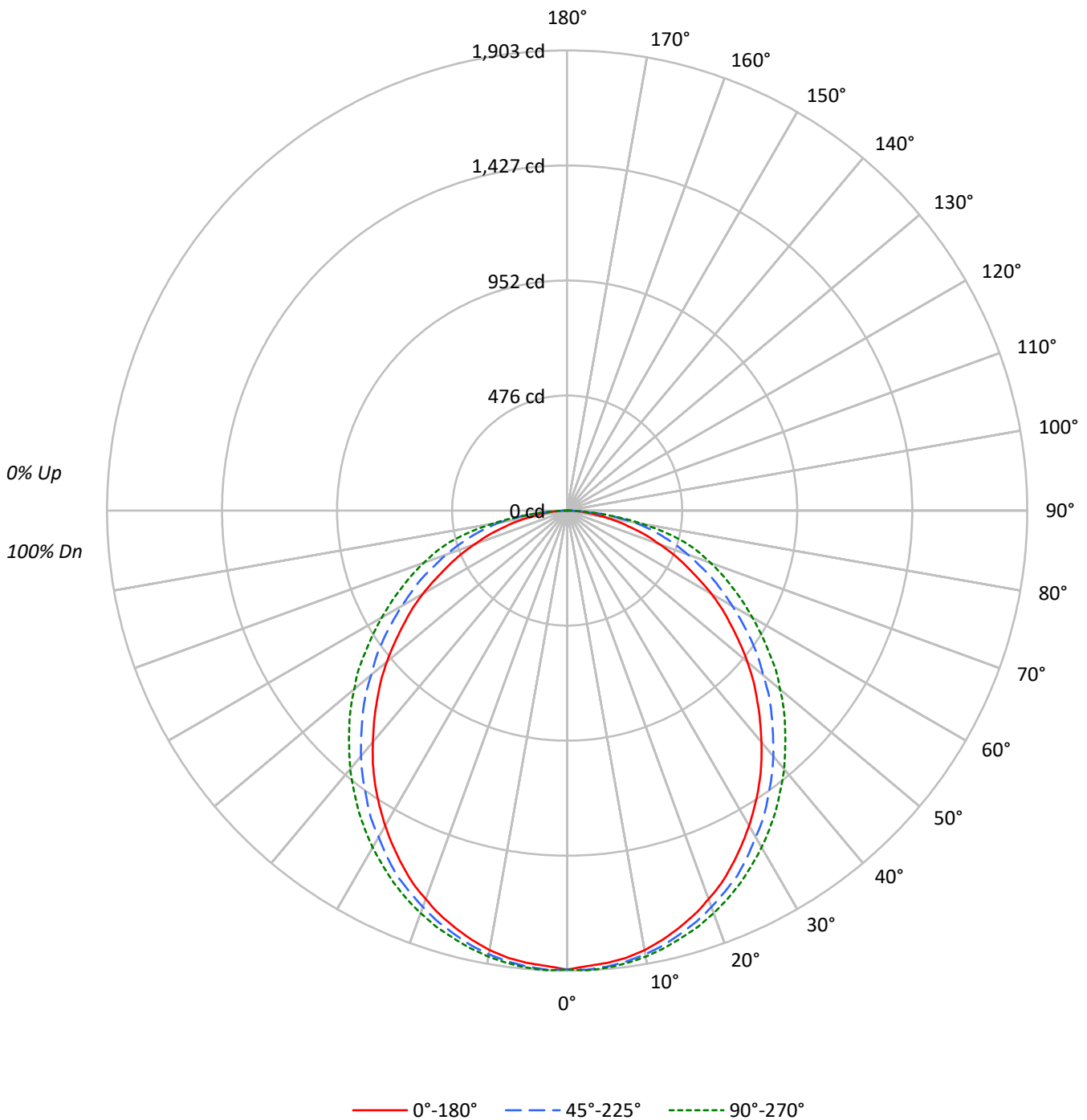
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5107	5107	5107
5°	5073	5113	5126
10°	5044	5091	5118
15°	4977	5046	5094
20°	4897	4996	5074
25°	4798	4945	5040
30°	4676	4845	4998
35°	4546	4757	4952
40°	4392	4661	4904
45°	4231	4552	4852
50°	4076	4428	4810
55°	3884	4347	4776
60°	3710	4242	4761
65°	3461	4216	4814
70°	3188	4180	4958
75°	2878	4239	5215
80°	2489	4365	4902
85°	2059	3662	3662



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.5	3.4
10°-20°	510.7	9.6
20°-30°	764.2	14.4
30°-40°	905.0	17.1
40°-50°	922.3	17.4
50°-60°	826.6	15.6
60°-70°	647.2	12.2
70°-80°	417.3	7.9
80°-90°	123.3	2.3
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°	1454.4	27.5
0°-40°	2359.3	44.5
0°-60°	4108.2	77.6
0°-90°	5296.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5296.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1898	1898	1898	1898	1898	
5°	1878	1883	1893	1895	1898	178
15°	1786	1796	1811	1826	1828	504
25°	1616	1631	1665	1688	1698	744
35°	1384	1401	1448	1492	1507	865
45°	1112	1137	1196	1258	1275	859
55°	828	855	927	991	1018	742
65°	544	576	662	726	756	540
75°	277	319	408	477	502	297
85°	67	91	119	119	119	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1897.7	1897.7	1897.7	1897.7	1897.7
2.5°	1885.4	1890.3	1900.2	1902.7	1902.7
5°	1878.0	1882.9	1892.8	1895.3	1897.7
7.5°	1865.6	1868.1	1880.4	1885.4	1887.8
10°	1845.8	1850.8	1863.1	1870.5	1873.0
12.5°	1818.7	1826.1	1840.9	1850.8	1853.2
15°	1786.5	1796.4	1811.2	1826.1	1828.5
17.5°	1751.9	1761.8	1781.6	1798.9	1803.8
20°	1709.9	1722.3	1744.5	1764.3	1771.7
22.5°	1667.9	1677.8	1705.0	1729.7	1737.1
25°	1616.0	1630.9	1665.4	1687.7	1697.6
27.5°	1561.7	1579.0	1613.6	1643.2	1653.1
30°	1504.8	1522.1	1559.2	1596.3	1608.6
32.5°	1445.5	1465.3	1509.8	1546.8	1559.2
35°	1383.8	1401.1	1448.0	1492.5	1507.3
37.5°	1319.5	1334.3	1388.7	1435.6	1450.5
40°	1250.3	1270.1	1326.9	1381.3	1396.1
42.5°	1181.1	1203.4	1260.2	1319.5	1334.3
45°	1111.9	1136.7	1196.0	1257.7	1275.0
47.5°	1045.2	1065.0	1131.7	1191.0	1215.7
50°	973.6	993.3	1057.6	1124.3	1149.0
52.5°	899.4	926.6	995.8	1060.1	1089.7
55°	827.8	855.0	926.6	990.9	1018.0
57.5°	761.1	783.3	857.4	924.2	951.3
60°	689.4	709.2	788.2	859.9	884.6
62.5°	612.8	642.5	724.0	790.7	820.4
65°	543.6	575.7	662.2	726.5	756.1
67.5°	479.4	509.0	593.0	662.2	694.3
70°	405.2	444.8	531.3	600.5	630.1
72.5°	345.9	380.5	469.5	538.7	570.8
75°	276.8	318.8	407.7	476.9	501.6
77.5°	219.9	261.9	345.9	400.3	412.7
80°	160.6	202.6	281.7	308.9	316.3
82.5°	108.7	148.3	202.6	210.0	212.5
85°	66.7	91.4	118.6	118.6	118.6
87.5°	32.1	37.1	42.0	39.5	39.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)