

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: P389336

Luminaire Tested: **22CZ2-60VHE-S-UNV-L950-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: P389336
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-L950-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5821.0 lumens
Efficiency: N/A
Efficacy: 132.0 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

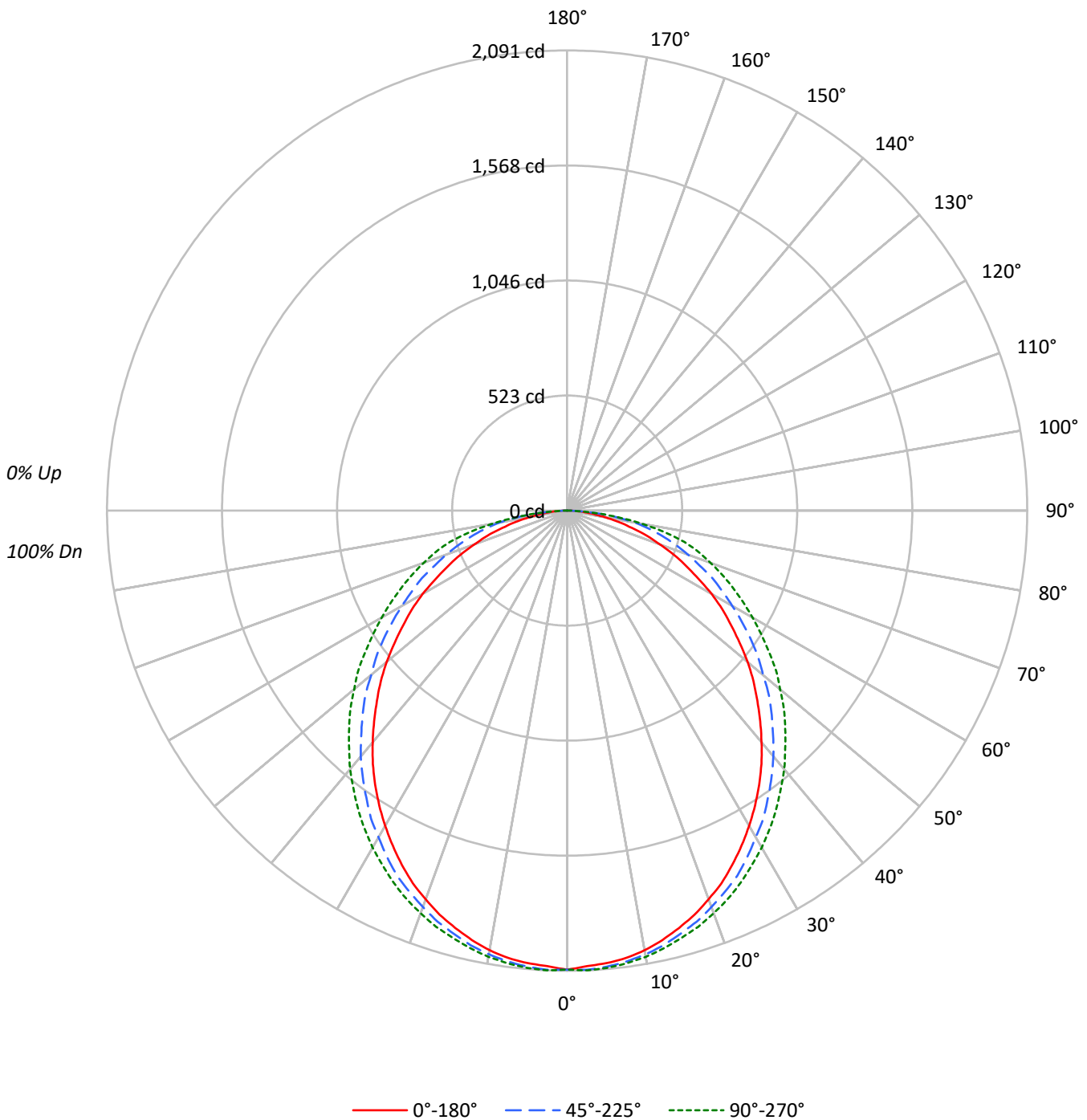
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5613	5613	5613
5°	5576	5620	5634
10°	5544	5596	5625
15°	5470	5546	5599
20°	5382	5491	5576
25°	5274	5435	5540
30°	5139	5325	5494
35°	4996	5228	5442
40°	4828	5123	5390
45°	4651	5002	5333
50°	4480	4866	5287
55°	4268	4778	5250
60°	4078	4663	5233
65°	3805	4635	5292
70°	3504	4594	5449
75°	3163	4659	5732
80°	2735	4798	5387
85°	2263	4026	4026



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.3	3.4
10°-20°	561.4	9.6
20°-30°	839.9	14.4
30°-40°	994.7	17.1
40°-50°	1013.7	17.4
50°-60°	908.6	15.6
60°-70°	711.3	12.2
70°-80°	458.7	7.9
80°-90°	135.5	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°	1598.5	27.5
0°-40°	2593.2	44.5
0°-60°	4515.5	77.6
0°-90°	5821.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5821.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2086	2086	2086	2086	2086	
5°	2064	2070	2080	2083	2086	196
15°	1964	1974	1991	2007	2010	554
25°	1776	1792	1830	1855	1866	818
35°	1521	1540	1592	1640	1657	951
45°	1222	1249	1314	1382	1401	944
55°	910	940	1018	1089	1119	816
65°	598	633	728	798	831	594
75°	304	350	448	524	551	326
85°	73	100	130	130	130	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2085.8	2085.8	2085.8	2085.8	2085.8
2.5°	2072.3	2077.7	2088.6	2091.3	2091.3
5°	2064.1	2069.6	2080.4	2083.1	2085.8
7.5°	2050.5	2053.3	2066.8	2072.3	2075.0
10°	2028.8	2034.2	2047.8	2056.0	2058.7
12.5°	1998.9	2007.1	2023.4	2034.2	2037.0
15°	1963.6	1974.5	1990.8	2007.1	2009.8
17.5°	1925.6	1936.5	1958.2	1977.2	1982.6
20°	1879.4	1893.0	1917.5	1939.2	1947.3
22.5°	1833.3	1844.1	1874.0	1901.2	1909.3
25°	1776.2	1792.5	1830.5	1855.0	1865.9
27.5°	1716.5	1735.5	1773.5	1806.1	1817.0
30°	1654.0	1673.0	1713.8	1754.5	1768.1
32.5°	1588.8	1610.6	1659.4	1700.2	1713.8
35°	1520.9	1539.9	1591.5	1640.4	1656.7
37.5°	1450.3	1466.6	1526.4	1578.0	1594.3
40°	1374.3	1396.0	1458.5	1518.2	1534.5
42.5°	1298.2	1322.7	1385.1	1450.3	1466.6
45°	1222.2	1249.3	1314.5	1382.4	1401.4
47.5°	1148.8	1170.6	1243.9	1309.1	1336.2
50°	1070.1	1091.8	1162.4	1235.8	1262.9
52.5°	988.6	1018.5	1094.5	1165.1	1197.7
55°	909.8	939.7	1018.5	1089.1	1119.0
57.5°	836.5	861.0	942.4	1015.8	1045.6
60°	757.7	779.5	866.4	945.1	972.3
62.5°	673.6	706.1	795.8	869.1	901.7
65°	597.5	632.8	727.9	798.5	831.1
67.5°	526.9	559.5	651.8	727.9	763.2
70°	445.4	488.9	583.9	660.0	692.6
72.5°	380.2	418.3	516.0	592.1	627.4
75°	304.2	350.4	448.1	524.2	551.3
77.5°	241.7	287.9	380.2	440.0	453.6
80°	176.5	222.7	309.6	339.5	347.6
82.5°	119.5	163.0	222.7	230.9	233.6
85°	73.3	100.5	130.4	130.4	130.4
87.5°	35.3	40.7	46.2	43.5	43.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)