

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: P389330

Luminaire Tested: **22CZ2-60VHE-S-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: P389330
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-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: 5428.0 lumens
Efficiency: N/A
Efficacy: 123.1 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

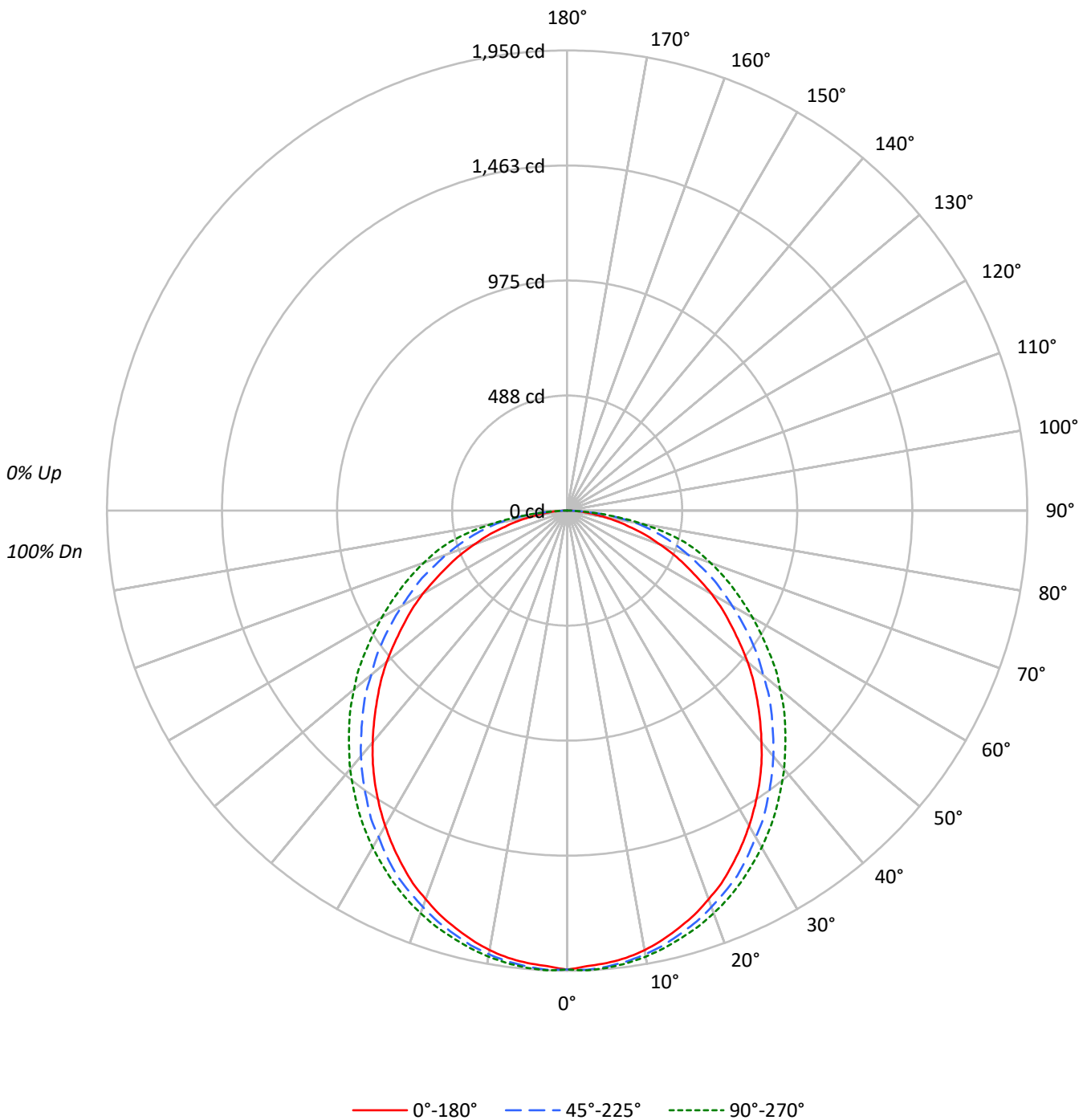
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5234	5234	5234
5°	5199	5240	5254
10°	5169	5218	5246
15°	5101	5172	5221
20°	5019	5120	5200
25°	4918	5068	5166
30°	4792	4966	5123
35°	4659	4875	5075
40°	4502	4777	5026
45°	4337	4665	4973
50°	4177	4538	4930
55°	3980	4456	4895
60°	3803	4348	4880
65°	3548	4322	4935
70°	3268	4284	5081
75°	2949	4345	5345
80°	2551	4474	5024
85°	2112	3754	3754



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.9	3.4
10°-20°	523.5	9.6
20°-30°	783.2	14.4
30°-40°	927.5	17.1
40°-50°	945.3	17.4
50°-60°	847.2	15.6
60°-70°	663.3	12.2
70°-80°	427.7	7.9
80°-90°	126.4	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°	1490.6	27.5
0°-40°	2418.1	44.5
0°-60°	4210.6	77.6
0°-90°	5428.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5428.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1945	1945	1945	1945	1945	
5°	1925	1930	1940	1942	1945	183
15°	1831	1841	1856	1872	1874	516
25°	1656	1672	1707	1730	1740	762
35°	1418	1436	1484	1530	1545	886
45°	1140	1165	1226	1289	1307	880
55°	848	876	950	1016	1043	761
65°	557	590	679	745	775	553
75°	284	327	418	489	514	304
85°	68	94	122	122	122	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1945.0	1945.0	1945.0	1945.0	1945.0
2.5°	1932.4	1937.4	1947.6	1950.1	1950.1
5°	1924.8	1929.8	1940.0	1942.5	1945.0
7.5°	1912.1	1914.6	1927.3	1932.4	1934.9
10°	1891.8	1896.9	1909.6	1917.2	1919.7
12.5°	1864.0	1871.6	1886.8	1896.9	1899.4
15°	1831.1	1841.2	1856.4	1871.6	1874.1
17.5°	1795.6	1805.7	1826.0	1843.7	1848.8
20°	1752.5	1765.2	1788.0	1808.3	1815.9
22.5°	1709.5	1719.6	1747.5	1772.8	1780.4
25°	1656.3	1671.5	1707.0	1729.8	1739.9
27.5°	1600.6	1618.3	1653.8	1684.2	1694.3
30°	1542.3	1560.1	1598.1	1636.0	1648.7
32.5°	1481.6	1501.8	1547.4	1585.4	1598.1
35°	1418.2	1436.0	1484.1	1529.7	1544.9
37.5°	1352.4	1367.6	1423.3	1471.4	1486.6
40°	1281.5	1301.7	1360.0	1415.7	1430.9
42.5°	1210.6	1233.4	1291.6	1352.4	1367.6
45°	1139.7	1165.0	1225.8	1289.1	1306.8
47.5°	1071.3	1091.5	1159.9	1220.7	1246.0
50°	997.8	1018.1	1083.9	1152.3	1177.6
52.5°	921.9	949.7	1020.6	1086.5	1116.9
55°	848.4	876.3	949.7	1015.6	1043.4
57.5°	780.0	802.8	878.8	947.2	975.0
60°	706.6	726.9	807.9	881.3	906.7
62.5°	628.1	658.5	742.0	810.4	840.8
65°	557.2	590.1	678.7	744.6	775.0
67.5°	491.3	521.7	607.8	678.7	711.7
70°	415.3	455.9	544.5	615.4	645.8
72.5°	354.6	390.0	481.2	552.1	585.0
75°	283.6	326.7	417.9	488.8	514.1
77.5°	225.4	268.5	354.6	410.3	422.9
80°	164.6	207.7	288.7	316.6	324.2
82.5°	111.4	152.0	207.7	215.3	217.8
85°	68.4	93.7	121.6	121.6	121.6
87.5°	32.9	38.0	43.1	40.5	40.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)