

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: P389332

Luminaire Tested: **22CZ2-60VHE-S-UNV-L940-CD1-SWPD1-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: P389332
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-L940-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5416.1 lumens
Efficiency: N/A
Efficacy: 122.8 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

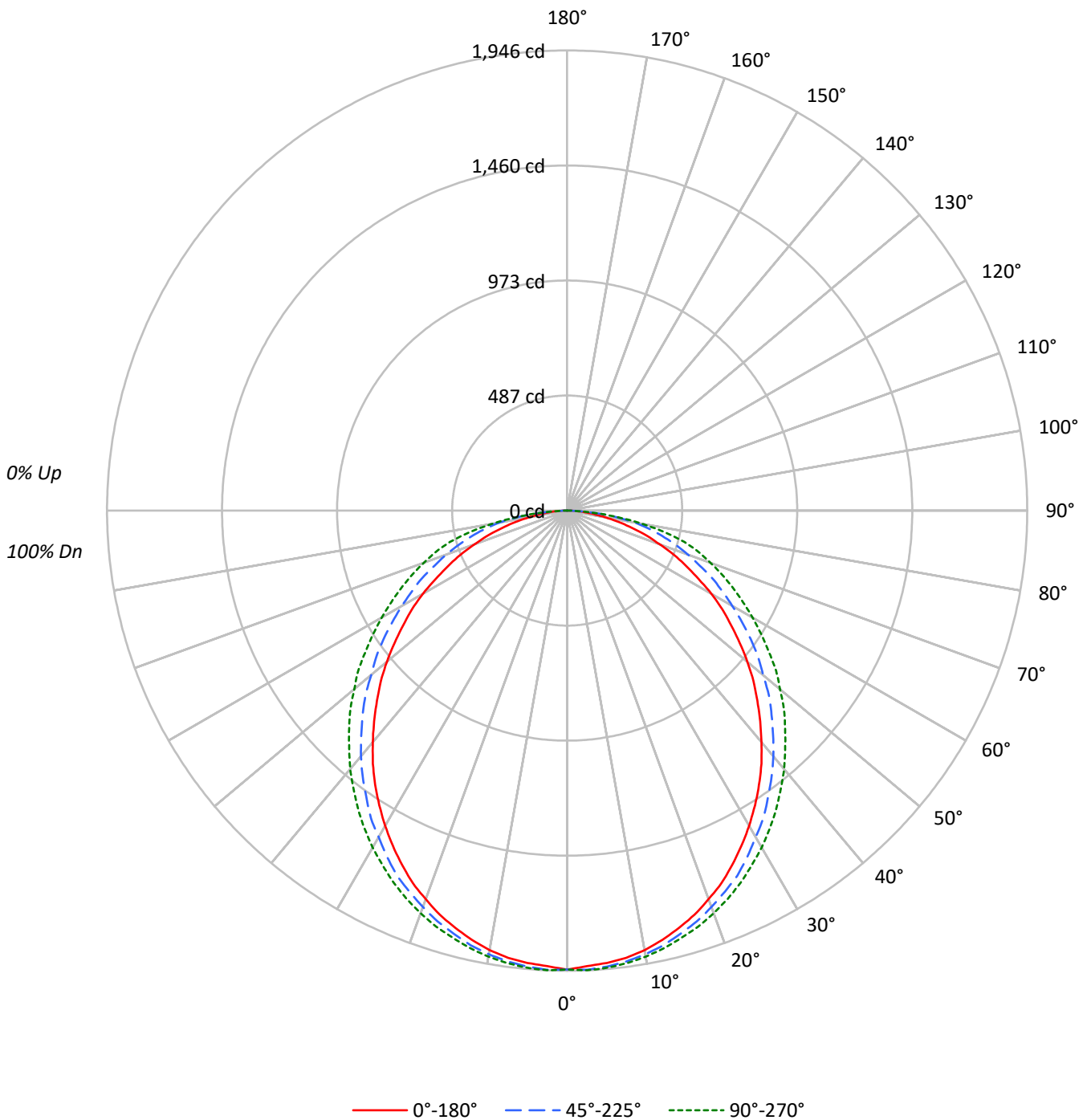
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49					49			
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27					27			
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5223	5223	5223
5°	5188	5229	5243
10°	5158	5206	5234
15°	5090	5160	5210
20°	5008	5109	5189
25°	4907	5057	5155
30°	4782	4955	5112
35°	4649	4865	5064
40°	4492	4767	5016
45°	4328	4655	4962
50°	4168	4528	4919
55°	3972	4446	4884
60°	3794	4338	4869
65°	3540	4312	4924
70°	3260	4275	5070
75°	2942	4336	5334
80°	2546	4465	5013
85°	2106	3745	3745



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.5	3.4
10°-20°	522.3	9.6
20°-30°	781.5	14.4
30°-40°	925.5	17.1
40°-50°	943.2	17.4
50°-60°	845.4	15.6
60°-70°	661.8	12.2
70°-80°	426.8	7.9
80°-90°	126.1	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°	1487.3	27.5
0°-40°	2412.8	44.5
0°-60°	4201.4	77.6
0°-90°	5416.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5416.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1941	1941	1941	1941	1941	
5°	1920	1926	1936	1938	1941	182
15°	1827	1837	1852	1868	1870	515
25°	1653	1668	1703	1726	1736	761
35°	1415	1433	1481	1526	1542	884
45°	1137	1162	1223	1286	1304	878
55°	847	874	948	1013	1041	759
65°	556	589	677	743	773	552
75°	283	326	417	488	513	303
85°	68	94	121	121	121	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1940.8	1940.8	1940.8	1940.8	1940.8
2.5°	1928.1	1933.2	1943.3	1945.8	1945.8
5°	1920.5	1925.6	1935.7	1938.2	1940.8
7.5°	1907.9	1910.4	1923.1	1928.1	1930.6
10°	1887.7	1892.7	1905.4	1913.0	1915.5
12.5°	1859.9	1867.5	1882.6	1892.7	1895.3
15°	1827.0	1837.1	1852.3	1867.5	1870.0
17.5°	1791.7	1801.8	1822.0	1839.7	1844.7
20°	1748.7	1761.3	1784.1	1804.3	1811.9
22.5°	1705.7	1715.9	1743.6	1768.9	1776.5
25°	1652.7	1667.8	1703.2	1726.0	1736.1
27.5°	1597.1	1614.8	1650.1	1680.5	1690.6
30°	1539.0	1556.6	1594.6	1632.5	1645.1
32.5°	1478.3	1498.5	1544.0	1581.9	1594.6
35°	1415.1	1432.8	1480.8	1526.3	1541.5
37.5°	1349.4	1364.6	1420.2	1468.2	1483.4
40°	1278.7	1298.9	1357.0	1412.6	1427.8
42.5°	1207.9	1230.7	1288.8	1349.4	1364.6
45°	1137.2	1162.4	1223.1	1286.3	1303.9
47.5°	1068.9	1089.1	1157.4	1218.0	1243.3
50°	995.6	1015.9	1081.6	1149.8	1175.1
52.5°	919.8	947.6	1018.4	1084.1	1114.4
55°	846.6	874.4	947.6	1013.3	1041.1
57.5°	778.3	801.1	876.9	945.1	972.9
60°	705.0	725.3	806.1	879.4	904.7
62.5°	626.7	657.0	740.4	808.6	839.0
65°	555.9	588.8	677.2	742.9	773.3
67.5°	490.2	520.6	606.5	677.2	710.1
70°	414.4	454.9	543.3	614.1	644.4
72.5°	353.8	389.2	480.1	550.9	583.7
75°	283.0	326.0	417.0	487.7	513.0
77.5°	224.9	267.9	353.8	409.4	422.0
80°	164.3	207.2	288.1	315.9	323.5
82.5°	111.2	151.6	207.2	214.8	217.3
85°	68.2	93.5	121.3	121.3	121.3
87.5°	32.9	37.9	43.0	40.4	40.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)