

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: P389325

Luminaire Tested: **22CZ2-60VHE-S-UNV-L930-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: P389325
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-L930-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5168.1 lumens
Efficiency: N/A
Efficacy: 117.2 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

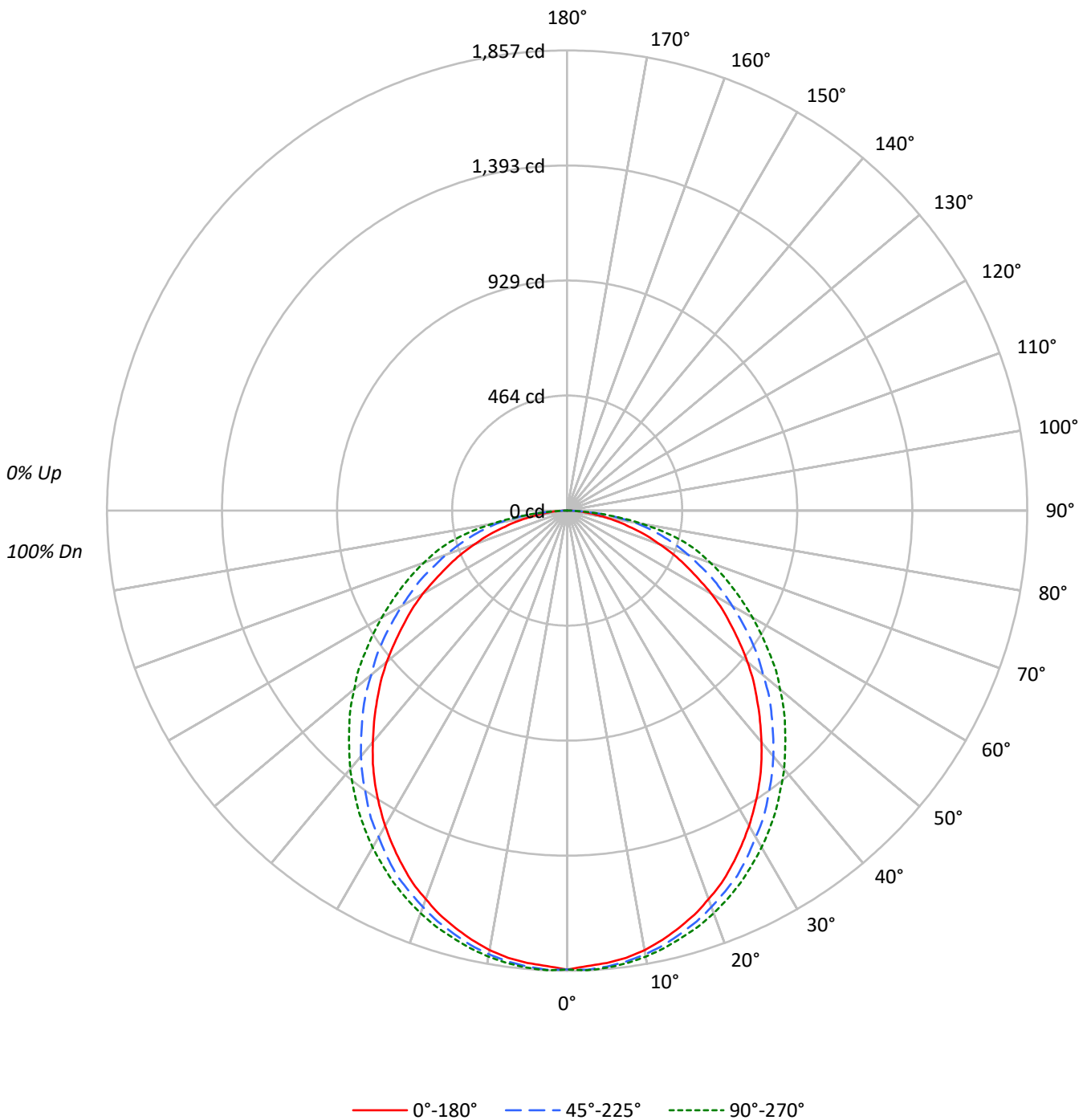
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4983	4983	4983
5°	4950	4989	5002
10°	4922	4968	4994
15°	4857	4924	4971
20°	4778	4875	4951
25°	4682	4825	4919
30°	4563	4728	4878
35°	4436	4642	4832
40°	4286	4549	4786
45°	4129	4442	4735
50°	3978	4320	4694
55°	3790	4242	4661
60°	3621	4140	4646
65°	3378	4115	4699
70°	3112	4079	4838
75°	2808	4137	5089
80°	2428	4260	4782
85°	2010	3572	3572



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.1	3.4
10°-20°	498.4	9.6
20°-30°	745.7	14.4
30°-40°	883.1	17.1
40°-50°	900.0	17.4
50°-60°	806.6	15.6
60°-70°	631.5	12.2
70°-80°	407.2	7.9
80°-90°	120.3	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°	1419.2	27.5
0°-40°	2302.3	44.5
0°-60°	4009.0	77.6
0°-90°	5168.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5168.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1852	1852	1852	1852	1852	
5°	1833	1837	1847	1850	1852	174
15°	1743	1753	1768	1782	1784	492
25°	1577	1592	1625	1647	1657	726
35°	1350	1367	1413	1456	1471	844
45°	1085	1109	1167	1227	1244	838
55°	808	834	904	967	994	724
65°	530	562	646	709	738	527
75°	270	311	398	465	490	290
85°	65	89	116	116	116	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1851.9	1851.9	1851.9	1851.9	1851.9
2.5°	1839.8	1844.7	1854.3	1856.7	1856.7
5°	1832.6	1837.4	1847.1	1849.5	1851.9
7.5°	1820.5	1823.0	1835.0	1839.8	1842.2
10°	1801.3	1806.1	1818.1	1825.4	1827.8
12.5°	1774.7	1782.0	1796.4	1806.1	1808.5
15°	1743.4	1753.0	1767.5	1782.0	1784.4
17.5°	1709.6	1719.3	1738.6	1755.4	1760.3
20°	1668.6	1680.7	1702.4	1721.7	1728.9
22.5°	1627.6	1637.3	1663.8	1687.9	1695.2
25°	1577.0	1591.5	1625.2	1646.9	1656.6
27.5°	1524.0	1540.8	1574.6	1603.5	1613.2
30°	1468.5	1485.4	1521.5	1557.7	1569.8
32.5°	1410.6	1429.9	1473.3	1509.5	1521.5
35°	1350.3	1367.2	1413.0	1456.4	1470.9
37.5°	1287.6	1302.1	1355.2	1401.0	1415.4
40°	1220.1	1239.4	1294.9	1347.9	1362.4
42.5°	1152.6	1174.3	1229.8	1287.6	1302.1
45°	1085.1	1109.2	1167.1	1227.4	1244.2
47.5°	1020.0	1039.3	1104.4	1162.3	1186.4
50°	950.1	969.3	1032.0	1097.1	1121.3
52.5°	877.7	904.2	971.8	1034.5	1063.4
55°	807.8	834.3	904.2	966.9	993.5
57.5°	742.7	764.4	836.7	901.8	928.4
60°	672.8	692.0	769.2	839.1	863.3
62.5°	598.0	626.9	706.5	771.6	800.6
65°	530.5	561.8	646.2	708.9	737.9
67.5°	467.8	496.7	578.7	646.2	677.6
70°	395.5	434.0	518.4	585.9	614.9
72.5°	337.6	371.3	458.2	525.7	557.0
75°	270.1	311.1	397.9	465.4	489.5
77.5°	214.6	255.6	337.6	390.6	402.7
80°	156.7	197.7	274.9	301.4	308.6
82.5°	106.1	144.7	197.7	205.0	207.4
85°	65.1	89.2	115.7	115.7	115.7
87.5°	31.3	36.2	41.0	38.6	38.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)