

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: P388439

Luminaire Tested: **22CZ2-70VHE-UNV-L930-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: P388439
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-70VHE-UNV-L930-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5789.5 lumens
Efficiency: N/A
Efficacy: 115.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

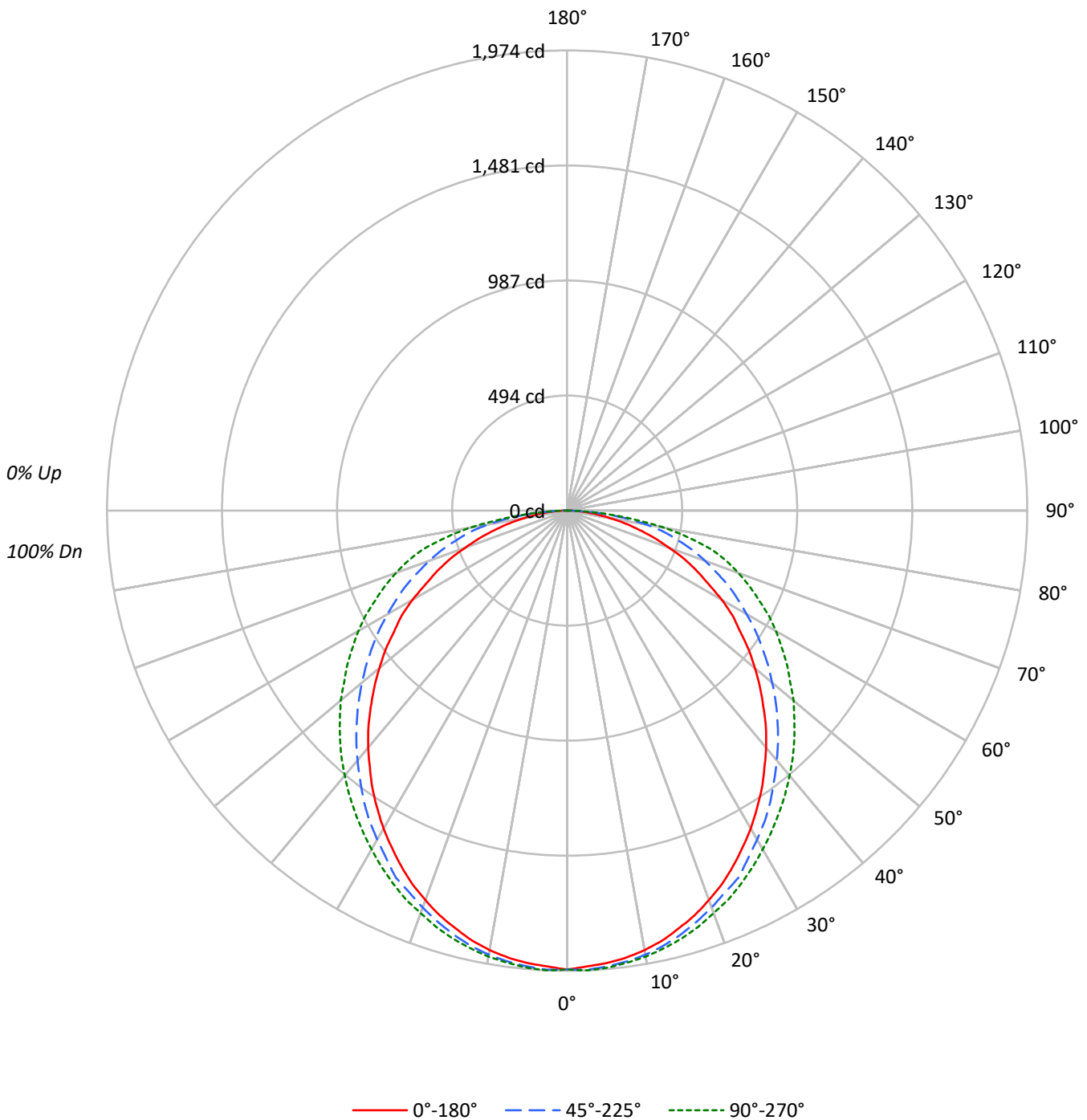
Input Watts (W): 50.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5297	5297	5297
5°	5264	5302	5317
10°	5231	5286	5309
15°	5167	5246	5294
20°	5091	5189	5262
25°	4999	5160	5244
30°	4895	5063	5214
35°	4782	4998	5203
40°	4664	4914	5214
45°	4532	4857	5247
50°	4401	4806	5307
55°	4250	4785	5400
60°	4124	4783	5565
65°	3918	4862	5768
70°	3654	4954	6142
75°	3347	5124	6634
80°	2913	5342	6533
85°	2550	4749	5190



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.2	3.2
10°-20°	530.3	9.2
20°-30°	796.0	13.7
30°-40°	951.2	16.4
40°-50°	989.1	17.1
50°-60°	916.7	15.8
60°-70°	752.0	13.0
70°-80°	508.3	8.8
80°-90°	159.7	2.8
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°	1512.5	26.1
0°-40°	2463.7	42.6
0°-60°	4369.5	75.5
0°-90°	5789.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5789.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1968	1968	1968	1968	1968	
5°	1949	1951	1963	1966	1968	185
15°	1855	1863	1883	1894	1900	523
25°	1684	1698	1738	1758	1766	775
35°	1456	1476	1521	1567	1584	910
45°	1191	1214	1276	1350	1379	920
55°	906	934	1020	1111	1151	814
65°	615	650	764	863	906	608
75°	322	376	493	593	638	341
85°	83	114	154	171	168	94
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1968.5	1968.5	1968.5	1968.5	1968.5
2.5°	1957.1	1962.8	1971.4	1974.2	1974.2
5°	1948.6	1951.4	1962.8	1965.7	1968.5
7.5°	1934.4	1940.0	1951.4	1954.3	1957.1
10°	1914.4	1920.1	1934.4	1940.0	1942.9
12.5°	1888.8	1894.5	1911.6	1920.1	1923.0
15°	1854.6	1863.1	1883.1	1894.5	1900.2
17.5°	1820.4	1828.9	1848.9	1866.0	1871.7
20°	1777.7	1797.6	1811.9	1834.6	1837.5
22.5°	1734.9	1746.3	1772.0	1794.8	1806.2
25°	1683.7	1697.9	1737.8	1757.7	1766.3
27.5°	1629.5	1649.5	1680.8	1712.1	1723.5
30°	1575.4	1589.6	1629.5	1666.6	1678.0
32.5°	1515.6	1535.5	1578.2	1615.3	1632.4
35°	1455.7	1475.7	1521.3	1566.9	1583.9
37.5°	1390.2	1413.0	1458.6	1512.7	1535.5
40°	1327.6	1344.6	1398.8	1464.3	1484.2
42.5°	1262.0	1282.0	1338.9	1410.2	1433.0
45°	1190.8	1213.6	1276.3	1350.3	1378.8
47.5°	1122.4	1145.2	1213.6	1287.7	1321.9
50°	1051.2	1079.7	1148.1	1233.5	1267.7
52.5°	982.8	1008.5	1085.4	1173.7	1205.1
55°	905.9	934.4	1019.9	1111.0	1150.9
57.5°	843.3	863.2	957.2	1051.2	1091.1
60°	766.3	792.0	888.8	988.5	1034.1
62.5°	683.7	726.4	826.2	928.7	974.3
65°	615.3	649.5	763.5	863.2	905.9
67.5°	544.1	581.2	692.3	797.7	846.1
70°	464.4	512.8	629.6	735.0	780.6
72.5°	393.1	444.4	564.1	666.6	715.1
75°	321.9	376.0	492.8	592.6	638.1
77.5°	253.5	313.4	427.3	504.2	532.7
80°	188.0	245.0	344.7	398.8	421.6
82.5°	131.0	179.5	253.5	282.0	287.7
85°	82.6	114.0	153.8	170.9	168.1
87.5°	37.0	45.6	57.0	62.7	59.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)