

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: P388438

Luminaire Tested: **22CZ2-70VHE-UNV-L930-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: P388438  
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-SWPD1-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: 5717.7 lumens  
Efficiency: N/A  
Efficacy: 113.7 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

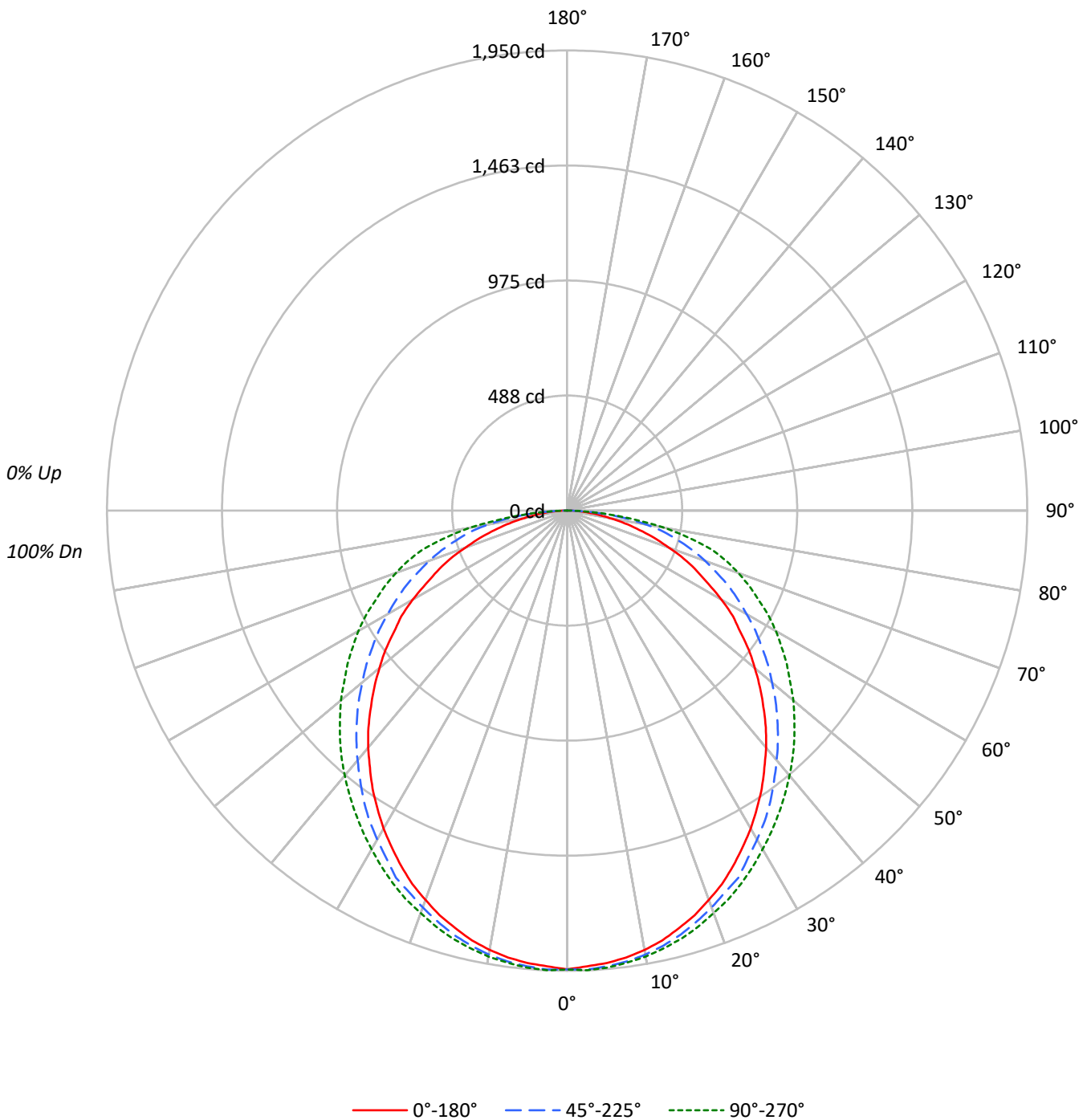
Input Watts (W): 50.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5232	5232	5232
5°	5198	5236	5252
10°	5166	5220	5243
15°	5103	5181	5228
20°	5027	5124	5197
25°	4937	5096	5179
30°	4835	5001	5149
35°	4723	4936	5139
40°	4606	4853	5149
45°	4475	4797	5182
50°	4346	4747	5241
55°	4198	4725	5333
60°	4073	4724	5497
65°	3869	4801	5697
70°	3608	4892	6065
75°	3305	5060	6552
80°	2878	5275	6453
85°	2519	4690	5125



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.9	3.2
10°-20°	523.7	9.2
20°-30°	786.2	13.7
30°-40°	939.4	16.4
40°-50°	976.8	17.1
50°-60°	905.4	15.8
60°-70°	742.6	13.0
70°-80°	502.0	8.8
80°-90°	157.7	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°	1493.7	26.1
0°-40°	2433.1	42.6
0°-60°	4315.3	75.5
0°-90°	5717.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5717.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1944	1944	1944	1944	1944	
5°	1924	1927	1938	1941	1944	183
15°	1832	1840	1860	1871	1877	517
25°	1663	1677	1716	1736	1744	766
35°	1438	1457	1502	1547	1564	899
45°	1176	1198	1260	1334	1362	908
55°	895	923	1007	1097	1137	804
65°	608	642	754	852	895	601
75°	318	371	487	585	630	337
85°	82	112	152	169	166	93
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1944.1	1944.1	1944.1	1944.1	1944.1
2.5°	1932.9	1938.5	1946.9	1949.8	1949.8
5°	1924.4	1927.2	1938.5	1941.3	1944.1
7.5°	1910.4	1916.0	1927.2	1930.1	1932.9
10°	1890.7	1896.3	1910.4	1916.0	1918.8
12.5°	1865.3	1871.0	1887.9	1896.3	1899.1
15°	1831.6	1840.0	1859.7	1871.0	1876.6
17.5°	1797.8	1806.3	1826.0	1842.8	1848.5
20°	1755.6	1775.3	1789.4	1811.9	1814.7
22.5°	1713.4	1724.7	1750.0	1772.5	1783.8
25°	1662.8	1676.8	1716.2	1735.9	1744.4
27.5°	1609.3	1629.0	1660.0	1690.9	1702.2
30°	1555.9	1569.9	1609.3	1645.9	1657.1
32.5°	1496.8	1516.5	1558.7	1595.3	1612.1
35°	1437.7	1457.4	1502.4	1547.4	1564.3
37.5°	1373.0	1395.5	1440.5	1494.0	1516.5
40°	1311.1	1328.0	1381.4	1446.1	1465.8
42.5°	1246.4	1266.1	1322.3	1392.7	1415.2
45°	1176.0	1198.5	1260.4	1333.6	1361.7
47.5°	1108.5	1131.0	1198.5	1271.7	1305.5
50°	1038.2	1066.3	1133.8	1218.2	1252.0
52.5°	970.7	996.0	1071.9	1159.2	1190.1
55°	894.7	922.8	1007.2	1097.3	1136.7
57.5°	832.8	852.5	945.3	1038.2	1077.6
60°	756.8	782.2	877.8	976.3	1021.3
62.5°	675.2	717.4	815.9	917.2	962.2
65°	607.7	641.5	754.0	852.5	894.7
67.5°	537.4	574.0	683.7	787.8	835.6
70°	458.6	506.4	621.8	725.9	770.9
72.5°	388.3	438.9	557.1	658.4	706.2
75°	317.9	371.4	486.7	585.2	630.2
77.5°	250.4	309.5	422.0	498.0	526.1
80°	185.7	242.0	340.4	393.9	416.4
82.5°	129.4	177.3	250.4	278.5	284.2
85°	81.6	112.5	151.9	168.8	166.0
87.5°	36.6	45.0	56.3	61.9	59.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)