

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: P390598

Luminaire Tested: **22CZ2-70VHE-HRP-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: P390598
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-70VHE-HRP-UNV-L930-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4853.4 lumens
Efficiency: N/A
Efficacy: 96.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

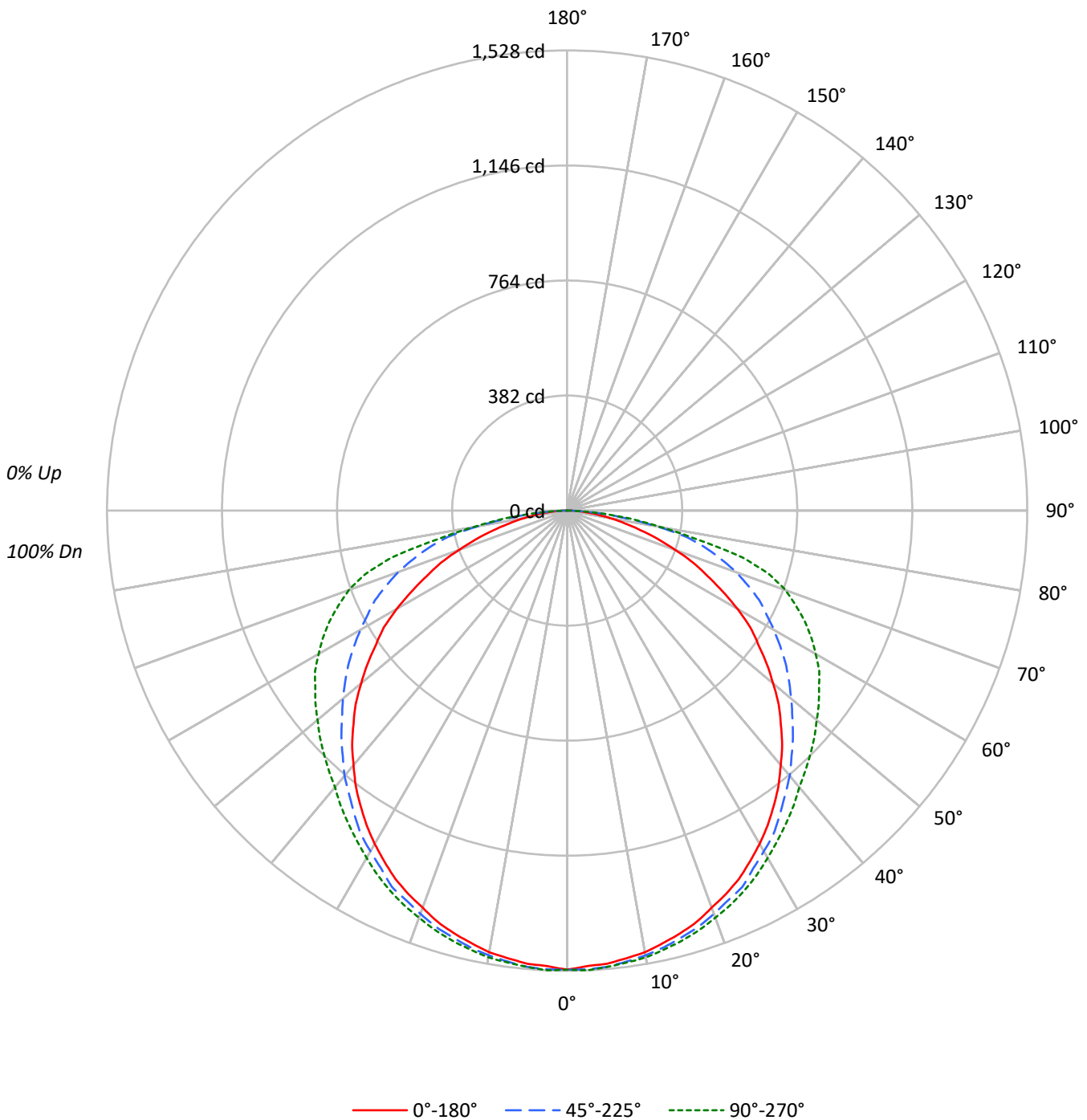
Input Watts (W): 50.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4102	4102	4102
5°	4080	4109	4109
10°	4068	4097	4117
15°	4048	4088	4118
20°	4018	4080	4120
25°	4007	4092	4134
30°	3972	4060	4138
35°	3929	4047	4164
40°	3875	4039	4214
45°	3818	4035	4348
50°	3737	4065	4529
55°	3635	4154	4791
60°	3517	4266	5131
65°	3273	4479	5547
70°	3006	4691	6068
75°	2636	4938	6274
80°	2269	4703	4925
85°	1985	3418	3748



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.2	3.0
10°-20°	414.1	8.5
20°-30°	631.7	13.0
30°-40°	771.3	15.9
40°-50°	824.7	17.0
50°-60°	796.1	16.4
60°-70°	685.3	14.1
70°-80°	463.7	9.6
80°-90°	122.4	2.5
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°	1190.0	24.5
0°-40°	1961.3	40.4
0°-60°	3582.1	73.8
0°-90°	4853.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4853.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1524	1524	1524	1524	1524	
5°	1510	1514	1521	1521	1521	143
15°	1453	1457	1467	1475	1478	410
25°	1350	1357	1378	1385	1392	621
35°	1196	1207	1232	1257	1268	748
45°	1003	1021	1060	1114	1142	774
55°	775	800	885	975	1021	694
65°	514	564	703	814	871	511
75°	254	336	475	571	603	272
85°	64	89	111	114	121	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1524.5	1524.5	1524.5	1524.5	1524.5
2.5°	1513.8	1517.4	1524.5	1524.5	1528.1
5°	1510.3	1513.8	1521.0	1521.0	1521.0
7.5°	1499.5	1503.1	1510.3	1513.8	1513.8
10°	1488.8	1492.4	1499.5	1503.1	1506.7
12.5°	1471.0	1474.6	1485.3	1492.4	1492.4
15°	1453.1	1456.7	1467.4	1474.6	1478.1
17.5°	1431.7	1438.8	1449.6	1456.7	1460.3
20°	1403.1	1410.3	1424.6	1435.3	1438.8
22.5°	1378.2	1385.3	1399.6	1410.3	1417.4
25°	1349.6	1356.7	1378.2	1385.3	1392.4
27.5°	1313.9	1321.0	1338.9	1353.2	1363.9
30°	1278.2	1285.3	1306.7	1324.6	1331.7
32.5°	1238.9	1249.6	1274.6	1288.9	1299.6
35°	1196.1	1206.8	1231.8	1256.8	1267.5
37.5°	1153.2	1163.9	1188.9	1221.1	1235.3
40°	1103.2	1117.5	1149.7	1192.5	1199.6
42.5°	1056.8	1074.7	1103.2	1153.2	1171.1
45°	1003.3	1021.1	1060.4	1113.9	1142.5
47.5°	953.3	971.1	1014.0	1078.2	1113.9
50°	892.6	917.6	971.1	1046.1	1081.8
52.5°	835.5	856.9	928.3	1010.4	1053.3
55°	774.8	799.8	885.4	974.7	1021.1
57.5°	721.2	742.6	839.0	939.0	992.6
60°	653.4	681.9	792.6	899.7	953.3
62.5°	582.0	624.8	746.2	856.9	914.0
65°	514.1	564.1	703.4	814.0	871.2
67.5°	453.4	507.0	649.8	767.6	821.2
70°	382.0	449.9	596.2	710.5	771.2
72.5°	317.8	392.7	535.6	649.8	703.4
75°	253.5	335.6	474.9	571.3	603.4
77.5°	196.4	274.9	407.0	435.6	439.2
80°	146.4	217.8	303.5	307.0	317.8
82.5°	100.0	153.5	196.4	214.2	217.8
85°	64.3	89.3	110.7	114.3	121.4
87.5°	28.6	32.1	39.3	35.7	35.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)