

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: P390791

Luminaire Tested: **22CZ2-90VHE-HRP-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: P390791
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: 22CZ2-90VHE-HRP-UNV-L930-CD1-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: 6390.7 lumens
Efficiency: N/A
Efficacy: 93.7 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

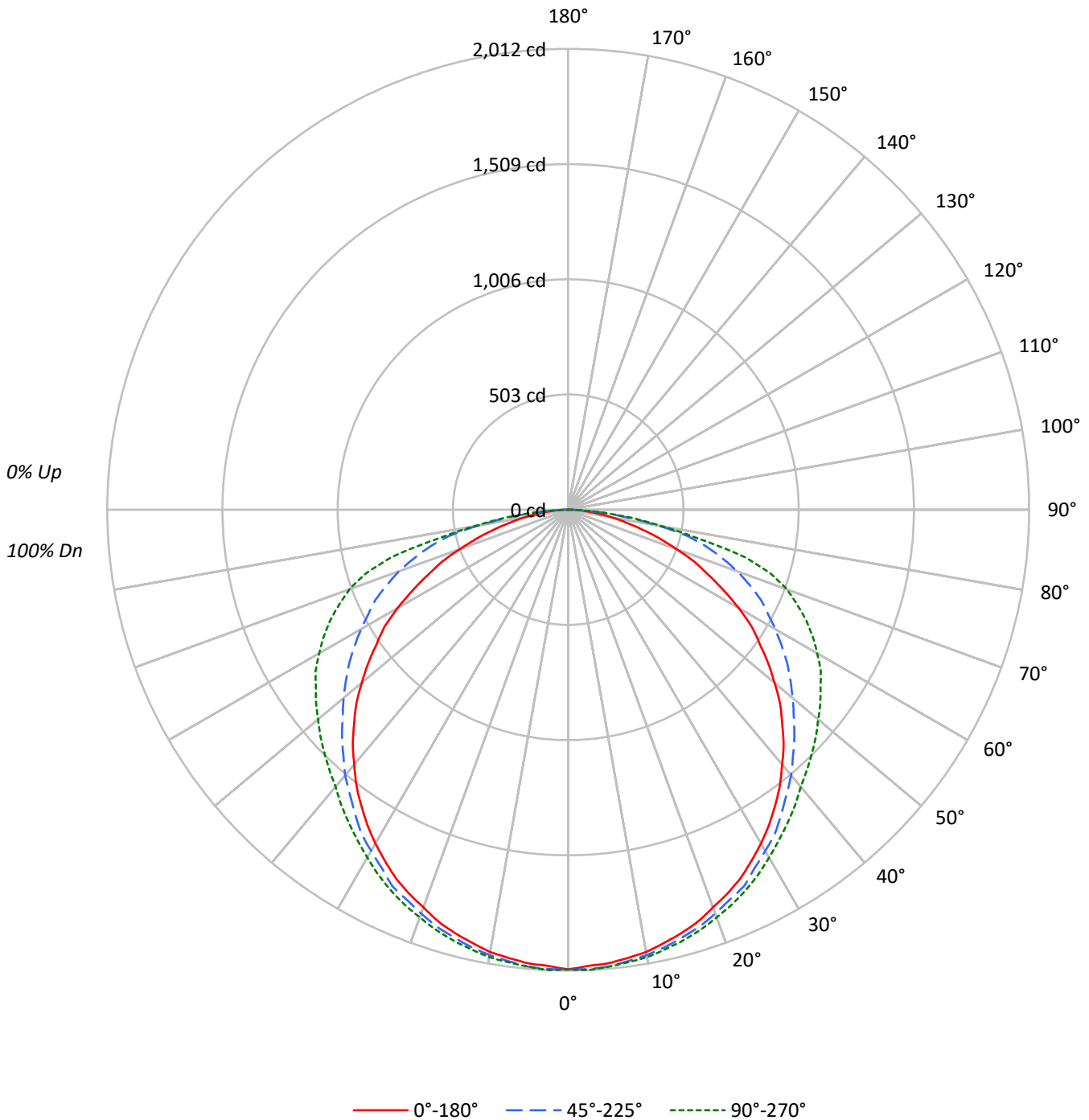
Input Watts (W): 68.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5402	5402	5402
5°	5372	5410	5410
10°	5357	5395	5421
15°	5331	5383	5422
20°	5291	5372	5426
25°	5277	5388	5444
30°	5230	5347	5449
35°	5174	5328	5482
40°	5103	5318	5549
45°	5027	5314	5725
50°	4920	5353	5964
55°	4786	5470	6308
60°	4630	5617	6755
65°	4311	5897	7304
70°	3958	6177	7990
75°	3471	6501	8261
80°	2988	6192	6484
85°	2612	4499	4934



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.9	3.0
10°-20°	545.2	8.5
20°-30°	831.8	13.0
30°-40°	1015.7	15.9
40°-50°	1086.0	17.0
50°-60°	1048.2	16.4
60°-70°	902.3	14.1
70°-80°	610.5	9.6
80°-90°	161.1	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°	1566.9	24.5
0°-40°	2582.6	40.4
0°-60°	4716.8	73.8
0°-90°	6390.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6390.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2007	2007	2007	2007	2007	
5°	1989	1993	2003	2003	2003	189
15°	1913	1918	1932	1942	1946	540
25°	1777	1786	1815	1824	1834	818
35°	1575	1589	1622	1655	1669	985
45°	1321	1345	1396	1467	1504	1020
55°	1020	1053	1166	1283	1345	914
65°	677	743	926	1072	1147	673
75°	334	442	625	752	794	358
85°	85	118	146	150	160	95
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2007.4	2007.4	2007.4	2007.4	2007.4
2.5°	1993.3	1998.0	2007.4	2007.4	2012.1
5°	1988.6	1993.3	2002.7	2002.7	2002.7
7.5°	1974.5	1979.2	1988.6	1993.3	1993.3
10°	1960.4	1965.1	1974.5	1979.2	1983.9
12.5°	1936.9	1941.6	1955.7	1965.1	1965.1
15°	1913.4	1918.1	1932.2	1941.6	1946.3
17.5°	1885.2	1894.6	1908.7	1918.1	1922.8
20°	1847.6	1857.0	1875.8	1889.9	1894.6
22.5°	1814.7	1824.1	1842.9	1857.0	1866.4
25°	1777.1	1786.5	1814.7	1824.1	1833.5
27.5°	1730.1	1739.5	1763.0	1781.8	1795.9
30°	1683.0	1692.4	1720.7	1744.2	1753.6
32.5°	1631.3	1645.4	1678.3	1697.1	1711.3
35°	1574.9	1589.0	1621.9	1654.8	1668.9
37.5°	1518.5	1532.6	1565.5	1607.8	1626.6
40°	1452.7	1471.5	1513.8	1570.2	1579.6
42.5°	1391.6	1415.1	1452.7	1518.5	1542.0
45°	1321.0	1344.6	1396.3	1466.8	1504.4
47.5°	1255.2	1278.7	1335.2	1419.8	1466.8
50°	1175.3	1208.2	1278.7	1377.5	1424.5
52.5°	1100.1	1128.3	1222.3	1330.5	1386.9
55°	1020.2	1053.1	1165.9	1283.4	1344.6
57.5°	949.7	977.9	1104.8	1236.4	1306.9
60°	860.3	897.9	1043.7	1184.7	1255.2
62.5°	766.3	822.7	982.6	1128.3	1203.5
65°	677.0	742.8	926.1	1071.9	1147.1
67.5°	597.1	667.6	855.6	1010.8	1081.3
70°	503.0	592.4	785.1	935.5	1015.5
72.5°	418.4	517.1	705.2	855.6	926.1
75°	333.8	441.9	625.3	752.2	794.5
77.5°	258.6	362.0	535.9	573.6	578.3
80°	192.8	286.8	399.6	404.3	418.4
82.5°	131.6	202.2	258.6	282.1	286.8
85°	84.6	117.5	145.7	150.4	159.8
87.5°	37.6	42.3	51.7	47.0	47.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)