

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: P390608

Luminaire Tested: **22CZ2-70VHE-HRP-UNV-L950-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: P390608
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-L950-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5400.6 lumens
Efficiency: N/A
Efficacy: 107.4 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

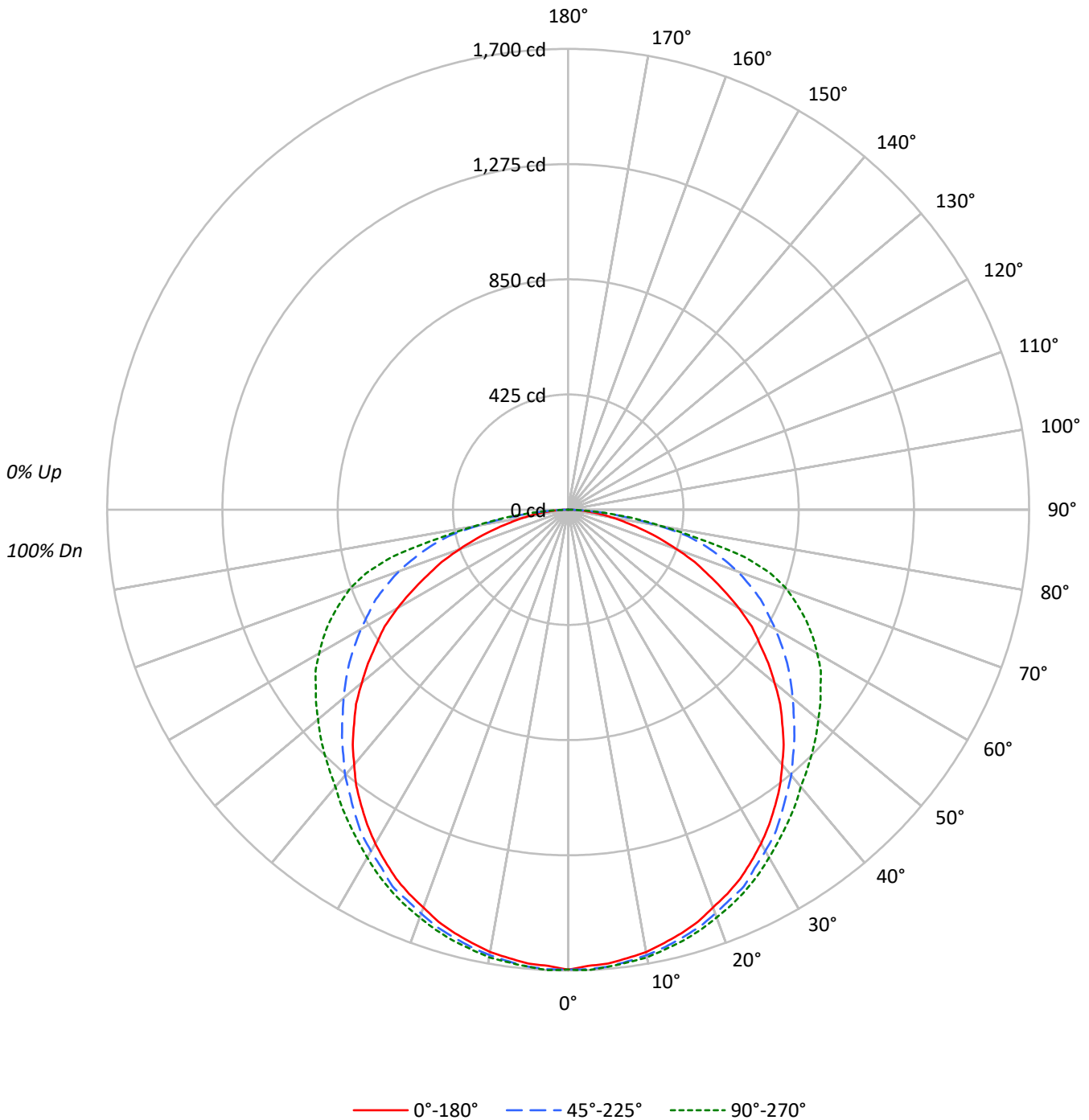
Input Watts (W): 50.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4565	4565	4565
5°	4539	4572	4572
10°	4527	4559	4581
15°	4505	4549	4582
20°	4471	4540	4585
25°	4459	4553	4600
30°	4419	4518	4605
35°	4372	4503	4633
40°	4312	4494	4689
45°	4249	4490	4838
50°	4158	4524	5040
55°	4045	4623	5331
60°	3913	4747	5709
65°	3643	4984	6173
70°	3345	5220	6751
75°	2933	5494	6981
80°	2524	5233	5480
85°	2208	3804	4171



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.5	3.0
10°-20°	460.7	8.5
20°-30°	702.9	13.0
30°-40°	858.3	15.9
40°-50°	917.7	17.0
50°-60°	885.8	16.4
60°-70°	762.5	14.1
70°-80°	515.9	9.6
80°-90°	136.1	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°	1324.2	24.5
0°-40°	2182.5	40.4
0°-60°	3986.0	73.8
0°-90°	5400.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5400.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1696	1696	1696	1696	1696	
5°	1680	1684	1692	1692	1692	160
15°	1617	1621	1633	1641	1645	456
25°	1502	1510	1534	1542	1549	691
35°	1331	1343	1371	1398	1410	833
45°	1116	1136	1180	1240	1271	862
55°	862	890	985	1085	1136	773
65°	572	628	783	906	969	569
75°	282	374	528	636	671	303
85°	72	99	123	127	135	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1696.4	1696.4	1696.4	1696.4	1696.4
2.5°	1684.5	1688.5	1696.4	1696.4	1700.4
5°	1680.5	1684.5	1692.4	1692.4	1692.4
7.5°	1668.6	1672.6	1680.5	1684.5	1684.5
10°	1656.7	1660.7	1668.6	1672.6	1676.6
12.5°	1636.8	1640.8	1652.7	1660.7	1660.7
15°	1617.0	1620.9	1632.9	1640.8	1644.8
17.5°	1593.1	1601.1	1613.0	1620.9	1624.9
20°	1561.3	1569.3	1585.2	1597.1	1601.1
22.5°	1533.5	1541.5	1557.4	1569.3	1577.2
25°	1501.8	1509.7	1533.5	1541.5	1549.4
27.5°	1462.0	1470.0	1489.8	1505.7	1517.6
30°	1422.3	1430.2	1454.1	1473.9	1481.9
32.5°	1378.6	1390.5	1418.3	1434.2	1446.1
35°	1330.9	1342.8	1370.6	1398.5	1410.4
37.5°	1283.2	1295.2	1323.0	1358.7	1374.6
40°	1227.6	1243.5	1279.3	1326.9	1334.9
42.5°	1176.0	1195.8	1227.6	1283.2	1303.1
45°	1116.4	1136.2	1179.9	1239.5	1271.3
47.5°	1060.8	1080.6	1128.3	1199.8	1239.5
50°	993.2	1021.0	1080.6	1164.1	1203.8
52.5°	929.7	953.5	1033.0	1124.3	1172.0
55°	862.1	889.9	985.3	1084.6	1136.2
57.5°	802.5	826.4	933.6	1044.9	1104.5
60°	727.0	758.8	882.0	1001.2	1060.8
62.5°	647.6	695.3	830.3	953.5	1017.1
65°	572.1	627.7	782.7	905.8	969.4
67.5°	504.6	564.1	723.1	854.2	913.8
70°	425.1	500.6	663.5	790.6	858.1
72.5°	353.6	437.0	595.9	723.1	782.7
75°	282.1	373.5	528.4	635.7	671.4
77.5°	218.5	305.9	452.9	484.7	488.7
80°	162.9	242.3	337.7	341.7	353.6
82.5°	111.2	170.8	218.5	238.4	242.3
85°	71.5	99.3	123.2	127.1	135.1
87.5°	31.8	35.8	43.7	39.7	39.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)