

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: P390798

Luminaire Tested: **22CZ2-90VHE-HRP-UNV-L950-CD1-SDWPD1-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: P390798
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-L950-CD1-SDWPD1-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: 6852.2 lumens
Efficiency: N/A
Efficacy: 100.5 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

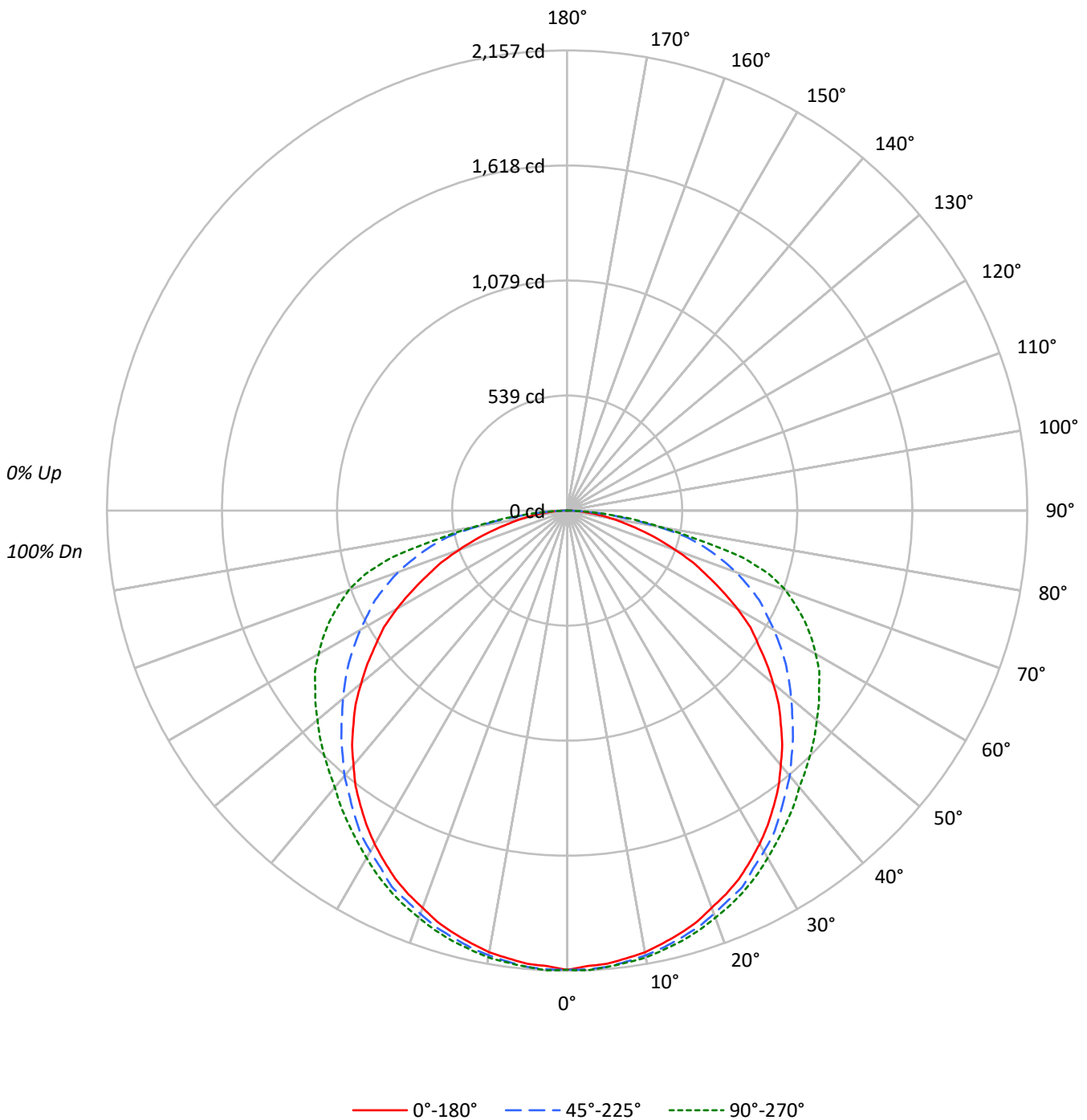
Input Watts (W): 68.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5792	5792	5792
5°	5760	5801	5801
10°	5744	5785	5813
15°	5716	5772	5814
20°	5673	5760	5817
25°	5657	5777	5837
30°	5607	5733	5842
35°	5547	5713	5879
40°	5472	5702	5950
45°	5390	5697	6138
50°	5276	5740	6394
55°	5132	5865	6764
60°	4965	6022	7244
65°	4622	6323	7831
70°	4244	6623	8567
75°	3721	6970	8857
80°	3203	6640	6952
85°	2800	4826	5292



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.6	3.0
10°-20°	584.6	8.5
20°-30°	891.9	13.0
30°-40°	1089.0	15.9
40°-50°	1164.4	17.0
50°-60°	1123.9	16.4
60°-70°	967.5	14.1
70°-80°	654.6	9.6
80°-90°	172.7	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°	1680.1	24.5
0°-40°	2769.1	40.4
0°-60°	5057.4	73.8
0°-90°	6852.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6852.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2152	2152	2152	2152	2152	
5°	2132	2137	2147	2147	2147	202
15°	2052	2057	2072	2082	2087	579
25°	1905	1916	1946	1956	1966	877
35°	1689	1704	1739	1774	1790	1057
45°	1416	1442	1497	1573	1613	1093
55°	1094	1129	1250	1376	1442	980
65°	726	796	993	1149	1230	722
75°	358	474	670	806	852	384
85°	91	126	156	161	171	102
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2152.4	2152.4	2152.4	2152.4	2152.4
2.5°	2137.3	2142.3	2152.4	2152.4	2157.4
5°	2132.2	2137.3	2147.4	2147.4	2147.4
7.5°	2117.1	2122.2	2132.2	2137.3	2137.3
10°	2102.0	2107.0	2117.1	2122.2	2127.2
12.5°	2076.8	2081.8	2096.9	2107.0	2107.0
15°	2051.6	2056.6	2071.7	2081.8	2086.9
17.5°	2021.3	2031.4	2046.5	2056.6	2061.7
20°	1981.0	1991.1	2011.3	2026.4	2031.4
22.5°	1945.7	1955.8	1976.0	1991.1	2001.2
25°	1905.4	1915.5	1945.7	1955.8	1965.9
27.5°	1855.0	1865.1	1890.3	1910.4	1925.6
30°	1804.6	1814.7	1844.9	1870.1	1880.2
32.5°	1749.1	1764.3	1799.5	1819.7	1834.8
35°	1688.6	1703.8	1739.1	1774.3	1789.5
37.5°	1628.2	1643.3	1678.6	1723.9	1744.1
40°	1557.6	1577.8	1623.1	1683.6	1693.7
42.5°	1492.1	1517.3	1557.6	1628.2	1653.4
45°	1416.4	1441.7	1497.1	1572.7	1613.0
47.5°	1345.9	1371.1	1431.6	1522.3	1572.7
50°	1260.2	1295.5	1371.1	1476.9	1527.3
52.5°	1179.5	1209.8	1310.6	1426.5	1487.0
55°	1093.8	1129.1	1250.1	1376.1	1441.7
57.5°	1018.2	1048.5	1184.6	1325.7	1401.3
60°	922.5	962.8	1119.0	1270.3	1345.9
62.5°	821.6	882.1	1053.5	1209.8	1290.4
65°	725.9	796.4	993.0	1149.3	1229.9
67.5°	640.2	715.8	917.4	1083.8	1159.4
70°	539.4	635.1	841.8	1003.1	1088.8
72.5°	448.6	554.5	756.1	917.4	993.0
75°	357.9	473.8	670.4	806.5	851.9
77.5°	277.2	388.1	574.6	615.0	620.0
80°	206.7	307.5	428.5	433.5	448.6
82.5°	141.1	216.8	277.2	302.4	307.5
85°	90.7	126.0	156.3	161.3	171.4
87.5°	40.3	45.4	55.4	50.4	50.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)