

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: P390026

Luminaire Tested: **22CZ2-100VHE-HRP-UNV-L935-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: P390026
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: 22CZ2-100VHE-HRP-UNV-L935-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7254.2 lumens
Efficiency: N/A
Efficacy: 93.4 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

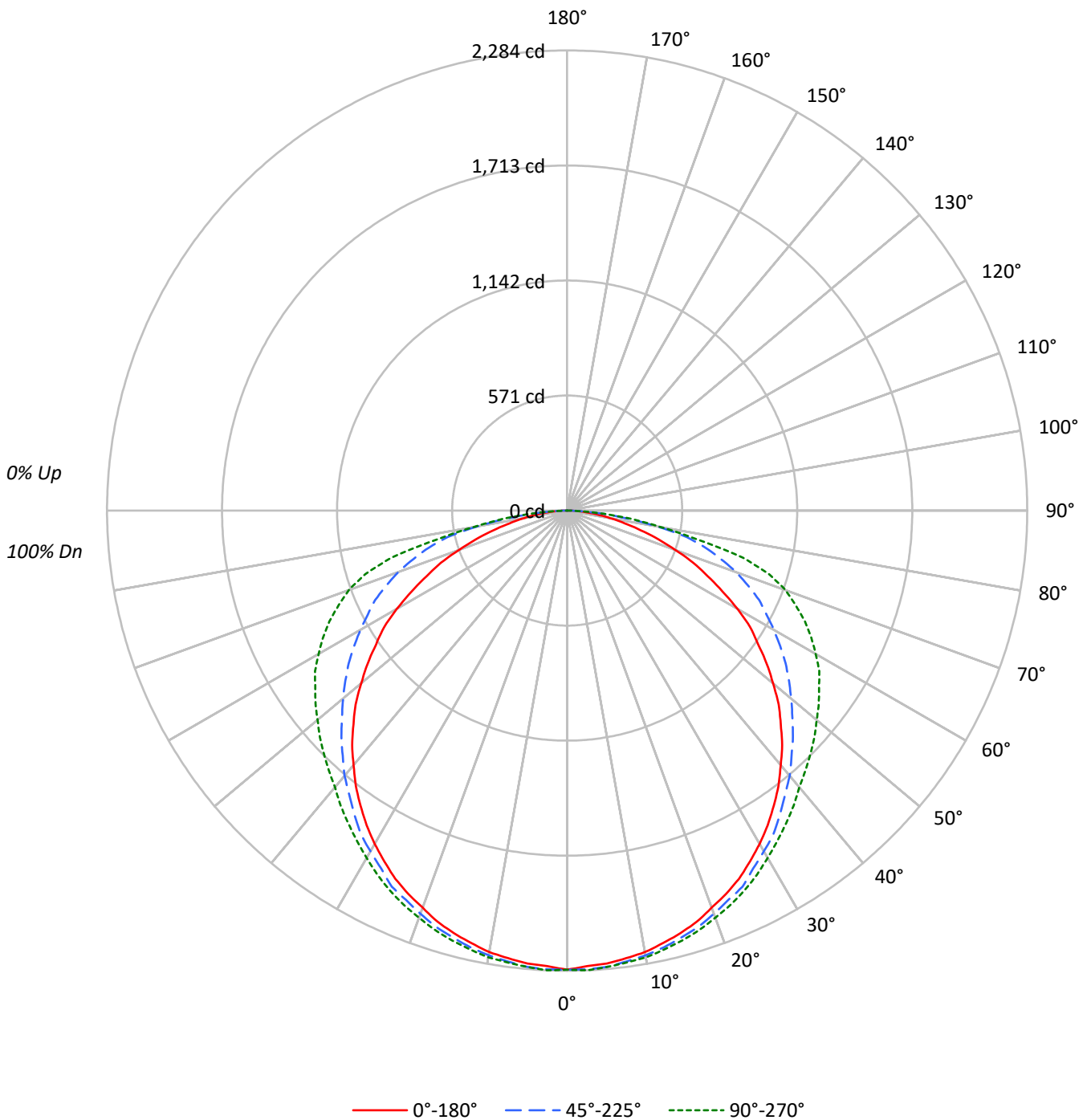
Input Watts (W): 77.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6132	6132	6132
5°	6098	6141	6141
10°	6081	6124	6154
15°	6051	6110	6155
20°	6006	6097	6159
25°	5989	6116	6179
30°	5936	6069	6185
35°	5873	6048	6223
40°	5793	6036	6299
45°	5707	6032	6499
50°	5585	6077	6769
55°	5433	6209	7160
60°	5256	6376	7668
65°	4893	6694	8291
70°	4493	7012	9069
75°	3939	7379	9377
80°	3391	7029	7359
85°	2967	5107	5601



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.5	3.0
10°-20°	618.9	8.5
20°-30°	944.2	13.0
30°-40°	1152.9	15.9
40°-50°	1232.7	17.0
50°-60°	1189.9	16.4
60°-70°	1024.3	14.1
70°-80°	693.0	9.6
80°-90°	182.9	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°	1778.6	24.5
0°-40°	2931.5	40.4
0°-60°	5354.1	73.8
0°-90°	7254.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7254.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2279	2279	2279	2279	2279	
5°	2257	2263	2273	2273	2273	214
15°	2172	2177	2193	2204	2209	613
25°	2017	2028	2060	2070	2081	928
35°	1788	1804	1841	1878	1894	1119
45°	1500	1526	1585	1665	1708	1157
55°	1158	1195	1323	1457	1526	1038
65°	768	843	1051	1217	1302	764
75°	379	502	710	854	902	406
85°	96	133	165	171	181	108
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2278.7	2278.7	2278.7	2278.7	2278.7
2.5°	2262.7	2268.0	2278.7	2278.7	2284.0
5°	2257.3	2262.7	2273.3	2273.3	2273.3
7.5°	2241.3	2246.7	2257.3	2262.7	2262.7
10°	2225.3	2230.6	2241.3	2246.7	2252.0
12.5°	2198.6	2204.0	2220.0	2230.6	2230.6
15°	2171.9	2177.3	2193.3	2204.0	2209.3
17.5°	2139.9	2150.6	2166.6	2177.3	2182.6
20°	2097.2	2107.9	2129.2	2145.3	2150.6
22.5°	2059.9	2070.5	2091.9	2107.9	2118.6
25°	2017.2	2027.9	2059.9	2070.5	2081.2
27.5°	1963.8	1974.5	2001.2	2022.5	2038.5
30°	1910.5	1921.1	1953.1	1979.8	1990.5
32.5°	1851.8	1867.8	1905.1	1926.5	1942.5
35°	1787.7	1803.7	1841.1	1878.4	1894.4
37.5°	1723.7	1739.7	1777.0	1825.1	1846.4
40°	1649.0	1670.3	1718.3	1782.4	1793.1
42.5°	1579.6	1606.3	1649.0	1723.7	1750.4
45°	1499.5	1526.2	1584.9	1665.0	1707.7
47.5°	1424.8	1451.5	1515.6	1611.6	1665.0
50°	1334.1	1371.5	1451.5	1563.6	1616.9
52.5°	1248.7	1280.8	1387.5	1510.2	1574.3
55°	1158.0	1195.4	1323.4	1456.9	1526.2
57.5°	1078.0	1110.0	1254.1	1403.5	1483.5
60°	976.6	1019.3	1184.7	1344.8	1424.8
62.5°	869.8	933.9	1115.3	1280.8	1366.1
65°	768.5	843.2	1051.3	1216.7	1302.1
67.5°	677.7	757.8	971.2	1147.3	1227.4
70°	571.0	672.4	891.2	1062.0	1152.7
72.5°	474.9	587.0	800.5	971.2	1051.3
75°	378.9	501.6	709.7	853.8	901.9
77.5°	293.5	410.9	608.4	651.0	656.4
80°	218.8	325.5	453.6	458.9	474.9
82.5°	149.4	229.5	293.5	320.2	325.5
85°	96.1	133.4	165.4	170.8	181.4
87.5°	42.7	48.0	58.7	53.4	53.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)