

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: P390800

Luminaire Tested: **22CZ2-90VHE-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: P390800
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-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: 7023.0 lumens
Efficiency: N/A
Efficacy: 103.0 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

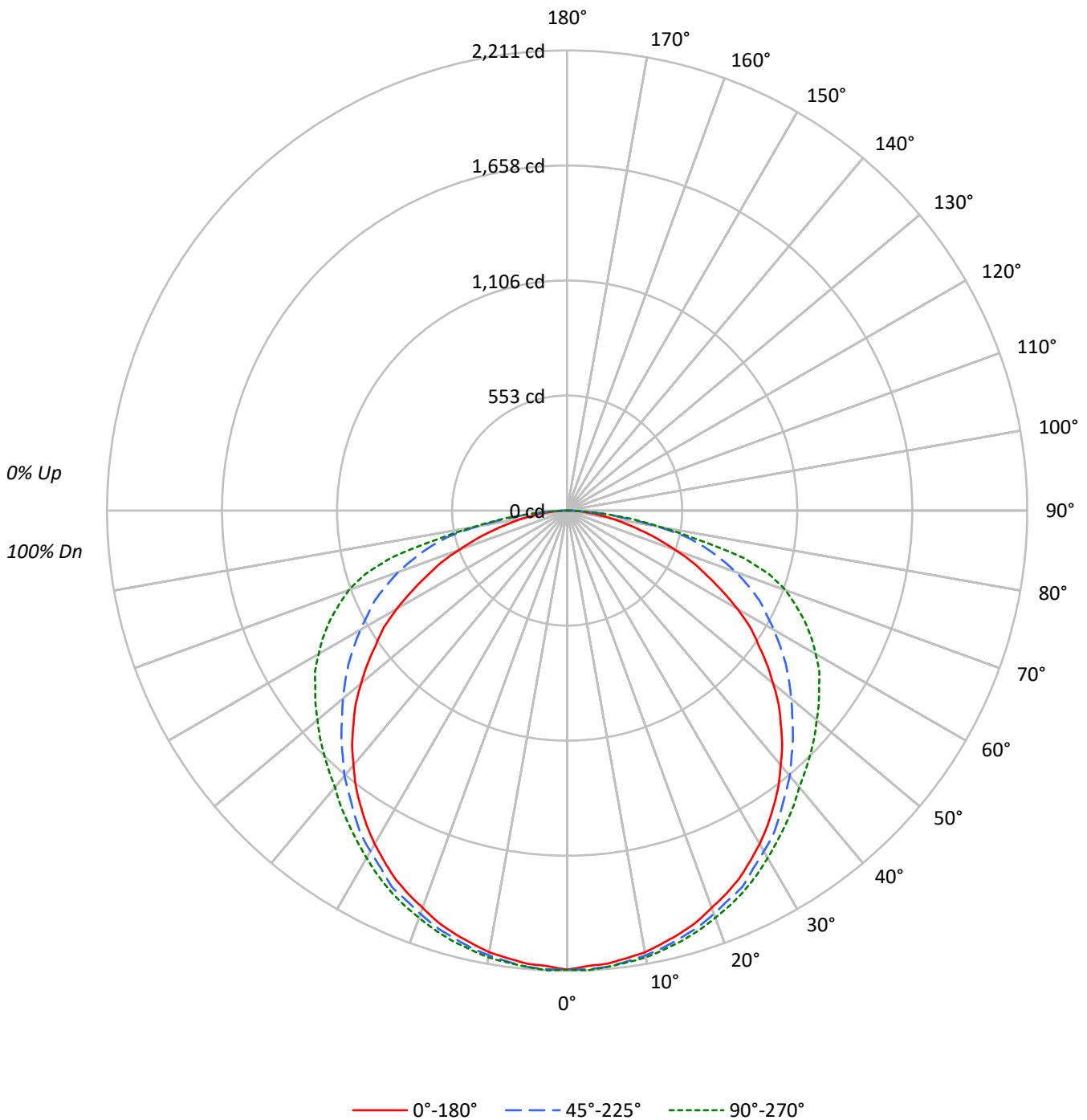
Input Watts (W): 68.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82					82			
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67					67			
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55					55			
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47					47			
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40					40			
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35					35			
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31					31			
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27					27			
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24					24			
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5936	5936	5936
5°	5903	5945	5945
10°	5887	5929	5957
15°	5858	5916	5959
20°	5814	5903	5962
25°	5798	5921	5983
30°	5747	5876	5988
35°	5685	5855	6025
40°	5608	5844	6098
45°	5525	5839	6291
50°	5407	5883	6553
55°	5260	6011	6932
60°	5088	6173	7424
65°	4737	6481	8027
70°	4349	6788	8780
75°	3814	7144	9078
80°	3282	6805	7125
85°	2871	4946	5425



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.7	3.0
10°-20°	599.2	8.5
20°-30°	914.1	13.0
30°-40°	1116.2	15.9
40°-50°	1193.4	17.0
50°-60°	1151.9	16.4
60°-70°	991.6	14.1
70°-80°	670.9	9.6
80°-90°	177.0	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°	1722.0	24.5
0°-40°	2838.1	40.4
0°-60°	5183.5	73.8
0°-90°	7023.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7023.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2206	2206	2206	2206	2206	
5°	2185	2190	2201	2201	2201	208
15°	2103	2108	2123	2134	2139	593
25°	1953	1963	1994	2005	2015	899
35°	1731	1746	1782	1819	1834	1083
45°	1452	1478	1534	1612	1653	1121
55°	1121	1157	1281	1410	1478	1005
65°	744	816	1018	1178	1261	740
75°	367	486	687	827	873	394
85°	93	129	160	165	176	105
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2206.0	2206.0	2206.0	2206.0	2206.0
2.5°	2190.5	2195.7	2206.0	2206.0	2211.2
5°	2185.4	2190.5	2200.9	2200.9	2200.9
7.5°	2169.9	2175.0	2185.4	2190.5	2190.5
10°	2154.4	2159.5	2169.9	2175.0	2180.2
12.5°	2128.6	2133.7	2149.2	2159.5	2159.5
15°	2102.7	2107.9	2123.4	2133.7	2138.9
17.5°	2071.7	2082.1	2097.6	2107.9	2113.1
20°	2030.4	2040.7	2061.4	2076.9	2082.1
22.5°	1994.2	2004.6	2025.2	2040.7	2051.1
25°	1952.9	1963.2	1994.2	2004.6	2014.9
27.5°	1901.2	1911.6	1937.4	1958.1	1973.6
30°	1849.6	1859.9	1890.9	1916.7	1927.1
32.5°	1792.7	1808.2	1844.4	1865.1	1880.6
35°	1730.7	1746.2	1782.4	1818.6	1834.1
37.5°	1668.7	1684.2	1720.4	1766.9	1787.6
40°	1596.4	1617.1	1663.6	1725.6	1735.9
42.5°	1529.3	1555.1	1596.4	1668.7	1694.6
45°	1451.8	1477.6	1534.4	1611.9	1653.2
47.5°	1379.4	1405.3	1467.3	1560.2	1611.9
50°	1291.6	1327.8	1405.3	1513.8	1565.4
52.5°	1208.9	1239.9	1343.3	1462.1	1524.1
55°	1121.1	1157.3	1281.3	1410.4	1477.6
57.5°	1043.6	1074.6	1214.1	1358.8	1436.3
60°	945.4	986.8	1146.9	1301.9	1379.4
62.5°	842.1	904.1	1079.8	1239.9	1322.6
65°	744.0	816.3	1017.8	1177.9	1260.6
67.5°	656.1	733.6	940.3	1110.8	1188.3
70°	552.8	651.0	862.8	1028.1	1115.9
72.5°	459.8	568.3	775.0	940.3	1017.8
75°	366.8	485.6	687.1	826.6	873.1
77.5°	284.2	397.8	589.0	630.3	635.5
80°	211.8	315.1	439.1	444.3	459.8
82.5°	144.7	222.2	284.2	310.0	315.1
85°	93.0	129.2	160.2	165.3	175.7
87.5°	41.3	46.5	56.8	51.7	51.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)