

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: P388542

Luminaire Tested: **22CZ2-90VHE-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: P388542
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-90VHE-UNV-L950-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8072.5 lumens
Efficiency: N/A
Efficacy: 118.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

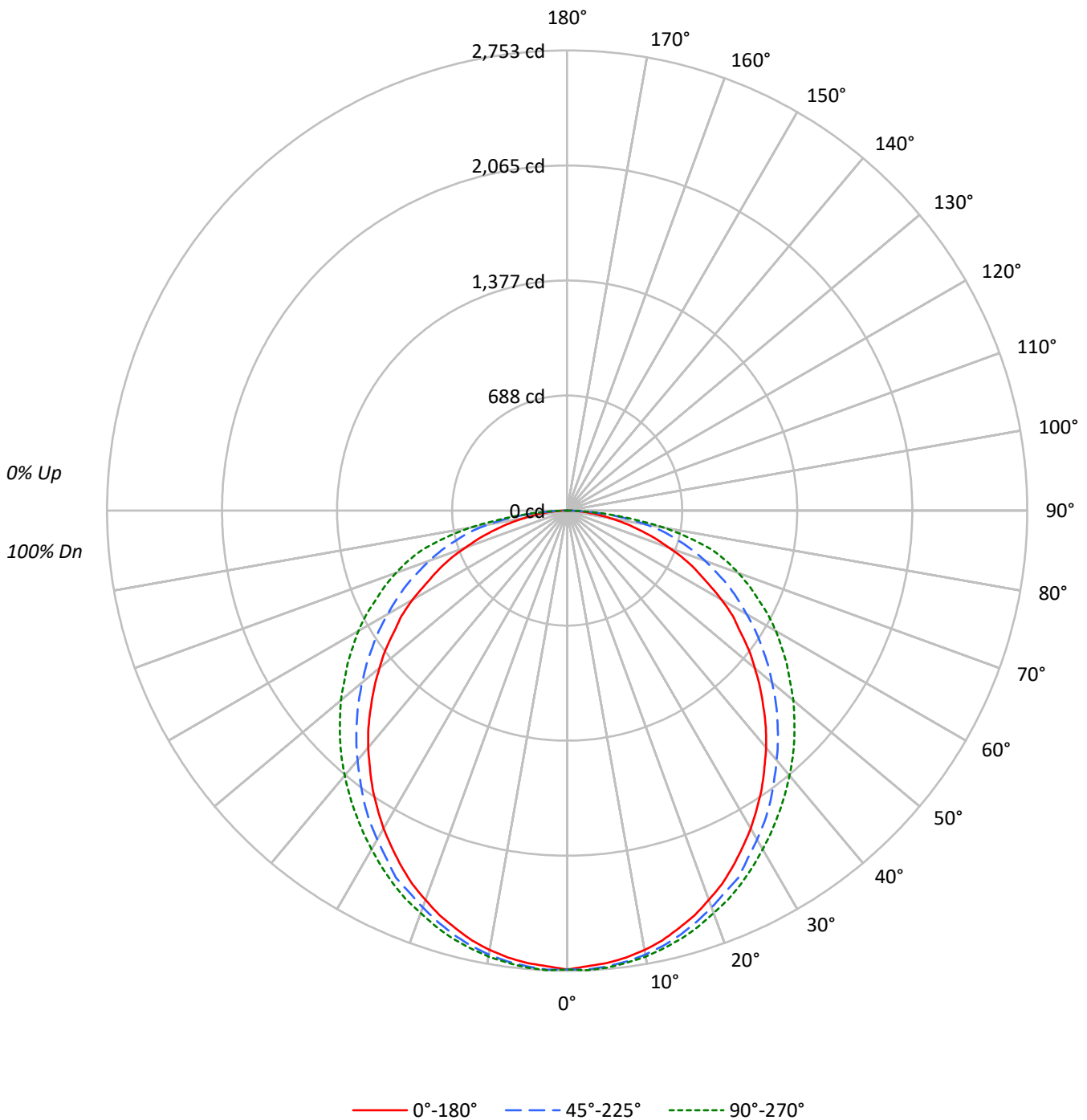
Input Watts (W): 68.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7386	7386	7386
5°	7339	7393	7414
10°	7294	7370	7402
15°	7204	7315	7381
20°	7098	7235	7337
25°	6970	7194	7312
30°	6825	7060	7270
35°	6668	6968	7255
40°	6503	6851	7270
45°	6319	6772	7317
50°	6136	6702	7400
55°	5926	6672	7529
60°	5751	6670	7760
65°	5463	6779	8043
70°	5094	6907	8563
75°	4667	7145	9251
80°	4063	7448	9111
85°	3557	6623	7237



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.6	3.2
10°-20°	739.4	9.2
20°-30°	1109.9	13.7
30°-40°	1326.3	16.4
40°-50°	1379.1	17.1
50°-60°	1278.3	15.8
60°-70°	1048.5	13.0
70°-80°	708.8	8.8
80°-90°	222.7	2.8
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°	2108.9	26.1
0°-40°	3435.2	42.6
0°-60°	6092.6	75.5
0°-90°	8072.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8072.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2745	2745	2745	2745	2745	
5°	2717	2721	2737	2741	2745	258
15°	2586	2598	2626	2642	2650	729
25°	2348	2367	2423	2451	2463	1081
35°	2030	2058	2121	2185	2209	1269
45°	1660	1692	1780	1883	1923	1282
55°	1263	1303	1422	1549	1605	1135
65°	858	906	1065	1204	1263	848
75°	449	524	687	826	890	476
85°	115	159	214	238	234	131
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2744.8	2744.8	2744.8	2744.8	2744.8
2.5°	2728.9	2736.9	2748.8	2752.7	2752.7
5°	2717.0	2721.0	2736.9	2740.8	2744.8
7.5°	2697.1	2705.1	2721.0	2724.9	2728.9
10°	2669.3	2677.3	2697.1	2705.1	2709.0
12.5°	2633.6	2641.5	2665.4	2677.3	2681.2
15°	2585.9	2597.8	2625.6	2641.5	2649.5
17.5°	2538.2	2550.2	2578.0	2601.8	2609.7
20°	2478.7	2506.5	2526.3	2558.1	2562.1
22.5°	2419.1	2435.0	2470.7	2502.5	2518.4
25°	2347.6	2367.4	2423.0	2450.9	2462.8
27.5°	2272.1	2299.9	2343.6	2387.3	2403.2
30°	2196.6	2216.5	2272.1	2323.7	2339.6
32.5°	2113.2	2141.0	2200.6	2252.2	2276.1
35°	2029.8	2057.6	2121.2	2184.7	2208.6
37.5°	1938.4	1970.2	2033.8	2109.2	2141.0
40°	1851.1	1874.9	1950.4	2041.7	2069.5
42.5°	1759.7	1787.5	1866.9	1966.2	1998.0
45°	1660.4	1692.2	1779.6	1882.8	1922.6
47.5°	1565.1	1596.8	1692.2	1795.4	1843.1
50°	1465.7	1505.5	1600.8	1720.0	1767.6
52.5°	1370.4	1406.2	1513.4	1636.6	1680.2
55°	1263.2	1302.9	1422.1	1549.2	1604.8
57.5°	1175.8	1203.6	1334.7	1465.7	1521.4
60°	1068.5	1104.3	1239.3	1378.4	1441.9
62.5°	953.3	1012.9	1151.9	1294.9	1358.5
65°	858.0	905.7	1064.6	1203.6	1263.2
67.5°	758.7	810.3	965.2	1112.2	1179.7
70°	647.5	715.0	877.9	1024.8	1088.4
72.5°	548.2	619.7	786.5	929.5	997.0
75°	448.9	524.3	687.2	826.2	889.8
77.5°	353.5	436.9	595.8	703.1	742.8
80°	262.2	341.6	480.6	556.1	587.9
82.5°	182.7	250.2	353.5	393.2	401.2
85°	115.2	158.9	214.5	238.3	234.4
87.5°	51.6	63.6	79.4	87.4	83.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)