

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: P389093

Luminaire Tested: **22CZ2-100VHE-S-UNV-L940-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: P389093
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-100VHE-S-UNV-L940-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9072.6 lumens
Efficiency: N/A
Efficacy: 116.8 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

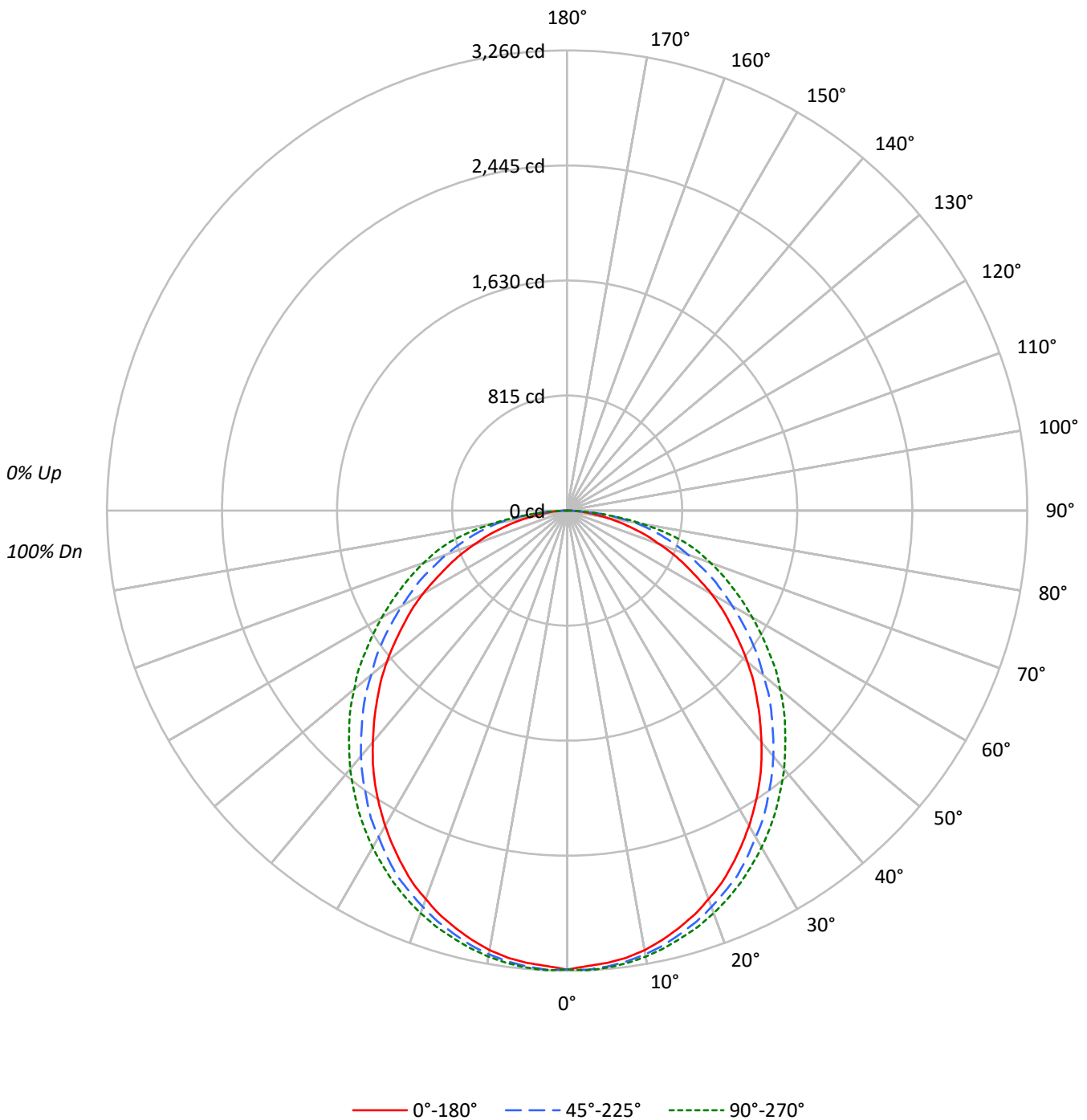
Input Watts (W): 77.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8748	8748	8748
5°	8690	8759	8782
10°	8640	8721	8768
15°	8526	8644	8727
20°	8389	8558	8692
25°	8220	8471	8635
30°	8010	8300	8563
35°	7787	8149	8483
40°	7524	7985	8402
45°	7249	7797	8313
50°	6982	7585	8241
55°	6653	7447	8182
60°	6356	7267	8156
65°	5930	7224	8248
70°	5462	7161	8493
75°	4929	7262	8934
80°	4263	7479	8396
85°	3529	6274	6274



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	307.4	3.4
10°-20°	874.9	9.6
20°-30°	1309.1	14.4
30°-40°	1550.3	17.1
40°-50°	1580.0	17.4
50°-60°	1416.1	15.6
60°-70°	1108.7	12.2
70°-80°	714.9	7.9
80°-90°	211.2	2.3
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°	2491.5	27.5
0°-40°	4041.8	44.5
0°-60°	7037.8	77.6
0°-90°	9072.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9072.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3251	3251	3251	3251	3251	
5°	3217	3226	3242	3247	3251	305
15°	3060	3077	3103	3128	3132	863
25°	2768	2794	2853	2891	2908	1274
35°	2370	2400	2481	2557	2582	1482
45°	1905	1947	2049	2155	2184	1471
55°	1418	1465	1587	1698	1744	1271
65°	931	986	1134	1244	1295	925
75°	474	546	698	817	859	508
85°	114	157	203	203	203	134
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3251.0	3251.0	3251.0	3251.0	3251.0
2.5°	3229.8	3238.3	3255.2	3259.5	3259.5
5°	3217.1	3225.6	3242.5	3246.8	3251.0
7.5°	3196.0	3200.2	3221.4	3229.8	3234.1
10°	3162.1	3170.6	3191.7	3204.4	3208.7
12.5°	3115.5	3128.2	3153.6	3170.6	3174.8
15°	3060.5	3077.4	3102.8	3128.2	3132.5
17.5°	3001.2	3018.2	3052.0	3081.7	3090.1
20°	2929.3	2950.4	2988.5	3022.4	3035.1
22.5°	2857.3	2874.3	2920.8	2963.1	2975.8
25°	2768.4	2793.8	2853.1	2891.2	2908.1
27.5°	2675.3	2704.9	2764.2	2815.0	2831.9
30°	2577.9	2607.6	2671.1	2734.6	2755.7
32.5°	2476.3	2510.2	2586.4	2649.9	2671.1
35°	2370.5	2400.1	2480.6	2556.8	2582.2
37.5°	2260.5	2285.9	2379.0	2459.4	2484.8
40°	2141.9	2175.8	2273.2	2366.3	2391.7
42.5°	2023.4	2061.5	2158.9	2260.5	2285.9
45°	1904.9	1947.2	2048.8	2154.6	2184.3
47.5°	1790.6	1824.5	1938.7	2040.3	2082.7
50°	1667.8	1701.7	1811.8	1926.0	1968.4
52.5°	1540.8	1587.4	1705.9	1816.0	1866.8
55°	1418.1	1464.6	1587.4	1697.5	1744.0
57.5°	1303.8	1341.9	1468.9	1583.2	1629.7
60°	1181.0	1214.9	1350.3	1473.1	1515.4
62.5°	1049.8	1100.6	1240.3	1354.6	1405.4
65°	931.3	986.3	1134.5	1244.5	1295.3
67.5°	821.2	872.0	1015.9	1134.5	1189.5
70°	694.2	762.0	910.1	1028.6	1079.4
72.5°	592.6	651.9	804.3	922.8	977.8
75°	474.1	546.1	698.5	817.0	859.3
77.5°	376.7	448.7	592.6	685.8	706.9
80°	275.1	347.1	482.6	529.1	541.8
82.5°	186.3	254.0	347.1	359.8	364.0
85°	114.3	156.6	203.2	203.2	203.2
87.5°	55.0	63.5	72.0	67.7	67.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)