

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: P389450

Luminaire Tested: **22CZ2-85VHE-S-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: P389450
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: 22CZ2-85VHE-S-UNV-L935-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7653.4 lumens
Efficiency: N/A
Efficacy: 120.3 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

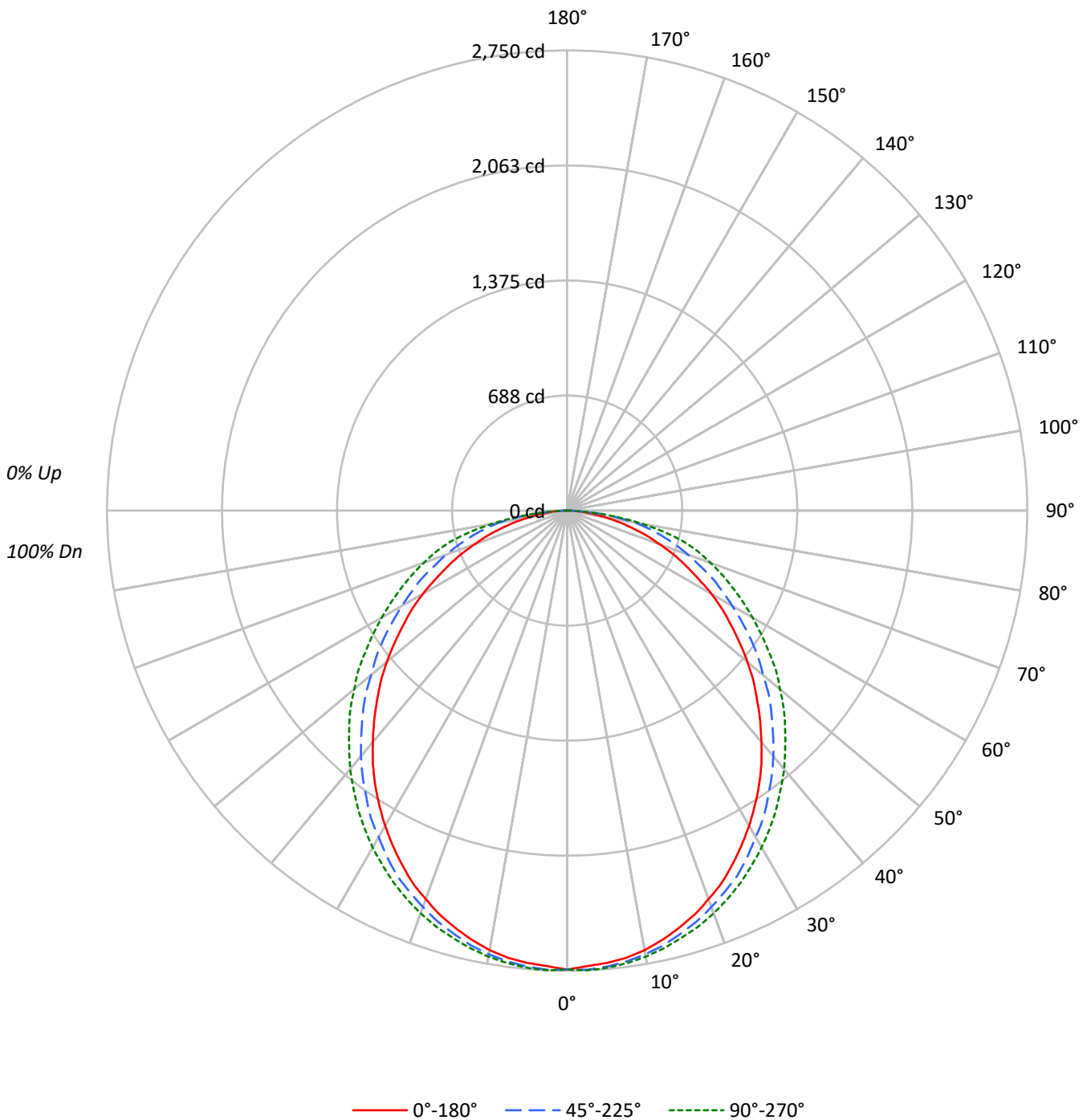
Input Watts (W): 63.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	7380	7380	7380
5°	7331	7389	7408
10°	7289	7357	7396
15°	7193	7292	7362
20°	7076	7220	7332
25°	6934	7146	7284
30°	6757	7001	7223
35°	6569	6874	7156
40°	6347	6736	7087
45°	6115	6577	7012
50°	5890	6398	6952
55°	5613	6282	6902
60°	5362	6131	6880
65°	5002	6094	6958
70°	4607	6040	7165
75°	4158	6126	7537
80°	3597	6309	7084
85°	2976	5292	5292



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.3	3.4
10°-20°	738.1	9.6
20°-30°	1104.3	14.4
30°-40°	1307.8	17.1
40°-50°	1332.8	17.4
50°-60°	1194.6	15.6
60°-70°	935.2	12.2
70°-80°	603.1	7.9
80°-90°	178.2	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°	2101.7	27.5
0°-40°	3409.5	44.5
0°-60°	5936.9	77.6
0°-90°	7653.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7653.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2742	2742	2742	2742	2742	
5°	2714	2721	2735	2739	2742	258
15°	2582	2596	2618	2639	2642	728
25°	2335	2357	2407	2439	2453	1075
35°	2000	2025	2092	2157	2178	1250
45°	1607	1643	1728	1818	1843	1241
55°	1196	1236	1339	1432	1471	1073
65°	786	832	957	1050	1093	780
75°	400	461	589	689	725	429
85°	96	132	171	171	171	113
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2742.5	2742.5	2742.5	2742.5	2742.5
2.5°	2724.6	2731.7	2746.0	2749.6	2749.6
5°	2713.9	2721.0	2735.3	2738.9	2742.5
7.5°	2696.0	2699.6	2717.5	2724.6	2728.2
10°	2667.5	2674.6	2692.5	2703.2	2706.7
12.5°	2628.2	2638.9	2660.3	2674.6	2678.2
15°	2581.8	2596.0	2617.5	2638.9	2642.5
17.5°	2531.8	2546.1	2574.6	2599.6	2606.8
20°	2471.1	2488.9	2521.1	2549.6	2560.3
22.5°	2410.4	2424.6	2463.9	2499.6	2510.3
25°	2335.4	2356.8	2406.8	2438.9	2453.2
27.5°	2256.8	2281.8	2331.8	2374.6	2388.9
30°	2174.7	2199.7	2253.2	2306.8	2324.7
32.5°	2089.0	2117.5	2181.8	2235.4	2253.2
35°	1999.7	2024.7	2092.5	2156.8	2178.2
37.5°	1906.9	1928.3	2006.8	2074.7	2096.1
40°	1806.9	1835.4	1917.6	1996.1	2017.6
42.5°	1706.9	1739.0	1821.2	1906.9	1928.3
45°	1606.9	1642.6	1728.3	1817.6	1842.6
47.5°	1510.5	1539.1	1635.5	1721.2	1756.9
50°	1406.9	1435.5	1528.3	1624.8	1660.5
52.5°	1299.8	1339.1	1439.1	1531.9	1574.8
55°	1196.3	1235.5	1339.1	1431.9	1471.2
57.5°	1099.8	1132.0	1239.1	1335.5	1374.8
60°	996.3	1024.8	1139.1	1242.7	1278.4
62.5°	885.6	928.4	1046.3	1142.7	1185.5
65°	785.6	832.0	957.0	1049.8	1092.7
67.5°	692.8	735.6	857.0	957.0	1003.4
70°	585.6	642.8	767.7	867.7	910.6
72.5°	499.9	549.9	678.5	778.5	824.9
75°	399.9	460.6	589.2	689.2	724.9
77.5°	317.8	378.5	499.9	578.5	596.3
80°	232.1	292.8	407.1	446.4	457.1
82.5°	157.1	214.3	292.8	303.5	307.1
85°	96.4	132.1	171.4	171.4	171.4
87.5°	46.4	53.6	60.7	57.1	57.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)