

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: P388537

Luminaire Tested: **22CZ2-90VHE-UNV-L935-CD1-SWPD1-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: P388537
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-L935-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7619.3 lumens
Efficiency: N/A
Efficacy: 111.7 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

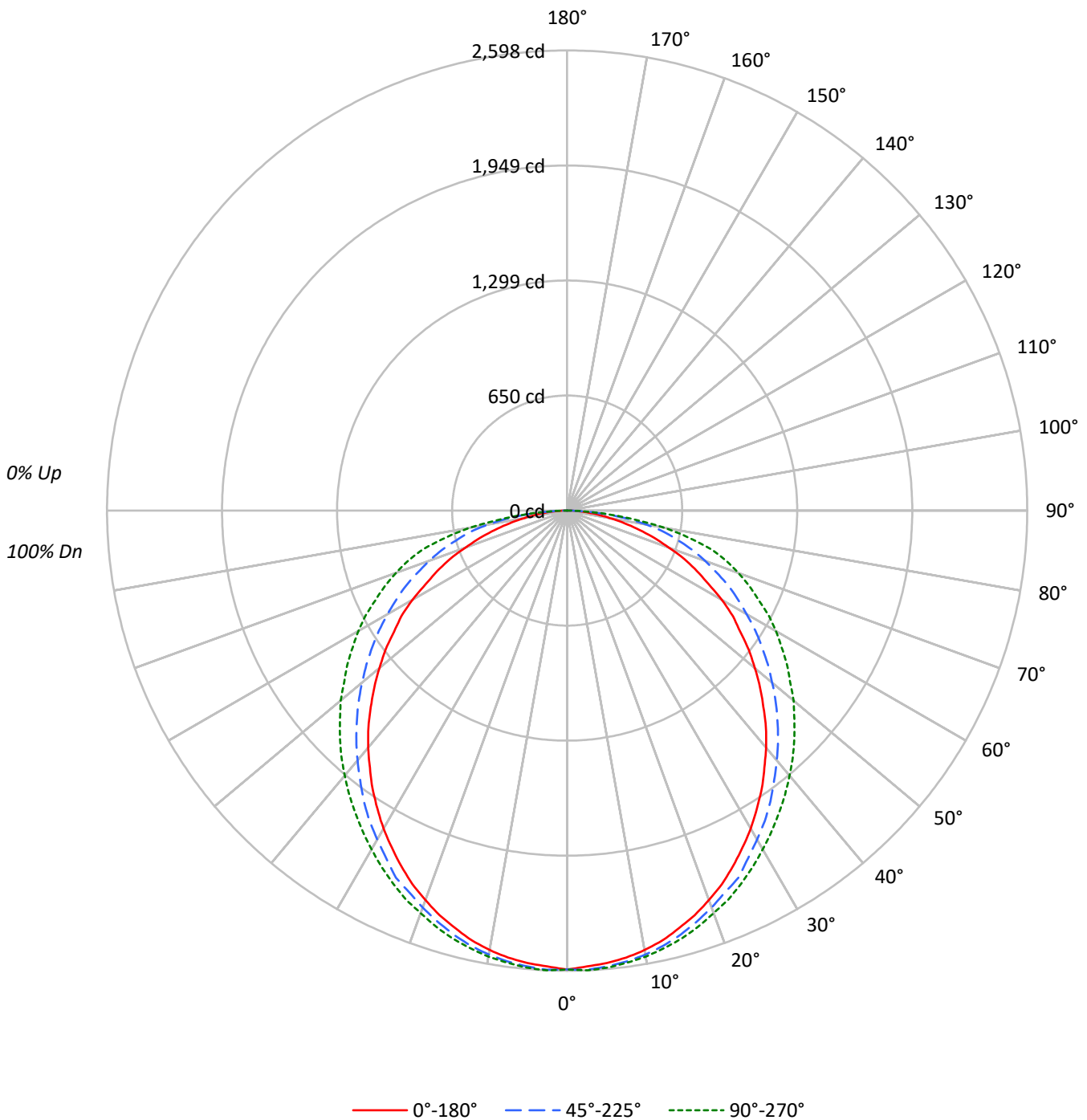
Input Watts (W): 68.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6972	6972	6972
5°	6927	6978	6998
10°	6885	6956	6987
15°	6800	6904	6967
20°	6700	6828	6925
25°	6579	6790	6902
30°	6442	6664	6862
35°	6294	6577	6848
40°	6137	6467	6862
45°	5964	6392	6906
50°	5792	6325	6985
55°	5593	6297	7106
60°	5428	6296	7325
65°	5156	6398	7591
70°	4808	6519	8083
75°	4405	6744	8732
80°	3834	7031	8599
85°	3356	6252	6830



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.0	3.2
10°-20°	697.9	9.2
20°-30°	1047.6	13.7
30°-40°	1251.8	16.4
40°-50°	1301.7	17.1
50°-60°	1206.5	15.8
60°-70°	989.6	13.0
70°-80°	669.0	8.8
80°-90°	210.2	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°	1990.5	26.1
0°-40°	3242.3	42.6
0°-60°	5750.5	75.5
0°-90°	7619.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7619.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2591	2591	2591	2591	2591	
5°	2564	2568	2583	2587	2591	243
15°	2441	2452	2478	2493	2501	688
25°	2216	2234	2287	2313	2324	1020
35°	1916	1942	2002	2062	2085	1197
45°	1567	1597	1680	1777	1815	1210
55°	1192	1230	1342	1462	1515	1071
65°	810	855	1005	1136	1192	800
75°	424	495	649	780	840	449
85°	109	150	202	225	221	123
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2590.7	2590.7	2590.7	2590.7	2590.7
2.5°	2575.7	2583.2	2594.5	2598.2	2598.2
5°	2564.5	2568.2	2583.2	2587.0	2590.7
7.5°	2545.7	2553.2	2568.2	2572.0	2575.7
10°	2519.5	2527.0	2545.7	2553.2	2557.0
12.5°	2485.7	2493.2	2515.7	2527.0	2530.7
15°	2440.7	2452.0	2478.2	2493.2	2500.7
17.5°	2395.7	2407.0	2433.2	2455.7	2463.2
20°	2339.5	2365.7	2384.5	2414.5	2418.2
22.5°	2283.3	2298.3	2332.0	2362.0	2377.0
25°	2215.8	2234.5	2287.0	2313.3	2324.5
27.5°	2144.5	2170.8	2212.0	2253.3	2268.3
30°	2073.3	2092.1	2144.5	2193.3	2208.3
32.5°	1994.6	2020.8	2077.1	2125.8	2148.3
35°	1915.8	1942.1	2002.1	2062.1	2084.6
37.5°	1829.6	1859.6	1919.6	1990.8	2020.8
40°	1747.1	1769.6	1840.9	1927.1	1953.3
42.5°	1660.9	1687.1	1762.1	1855.9	1885.9
45°	1567.2	1597.2	1679.6	1777.1	1814.6
47.5°	1477.2	1507.2	1597.2	1694.6	1739.6
50°	1383.5	1420.9	1510.9	1623.4	1668.4
52.5°	1293.5	1327.2	1428.4	1544.7	1585.9
55°	1192.2	1229.7	1342.2	1462.2	1514.7
57.5°	1109.8	1136.0	1259.7	1383.5	1435.9
60°	1008.5	1042.3	1169.8	1301.0	1361.0
62.5°	899.8	956.0	1087.3	1222.2	1282.2
65°	809.8	854.8	1004.8	1136.0	1192.2
67.5°	716.1	764.8	911.1	1049.8	1113.5
70°	611.1	674.9	828.6	967.3	1027.3
72.5°	517.4	584.9	742.3	877.3	941.1
75°	423.7	494.9	648.6	779.8	839.8
77.5°	333.7	412.4	562.4	663.6	701.1
80°	247.4	322.4	453.7	524.9	554.9
82.5°	172.5	236.2	333.7	371.2	378.7
85°	108.7	150.0	202.5	225.0	221.2
87.5°	48.7	60.0	75.0	82.5	78.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)