

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: P388257

Luminaire Tested: **22CZ2-90VHE-SQR-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: P388257
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-90VHE-SQR-UNV-L950-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7752.7 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

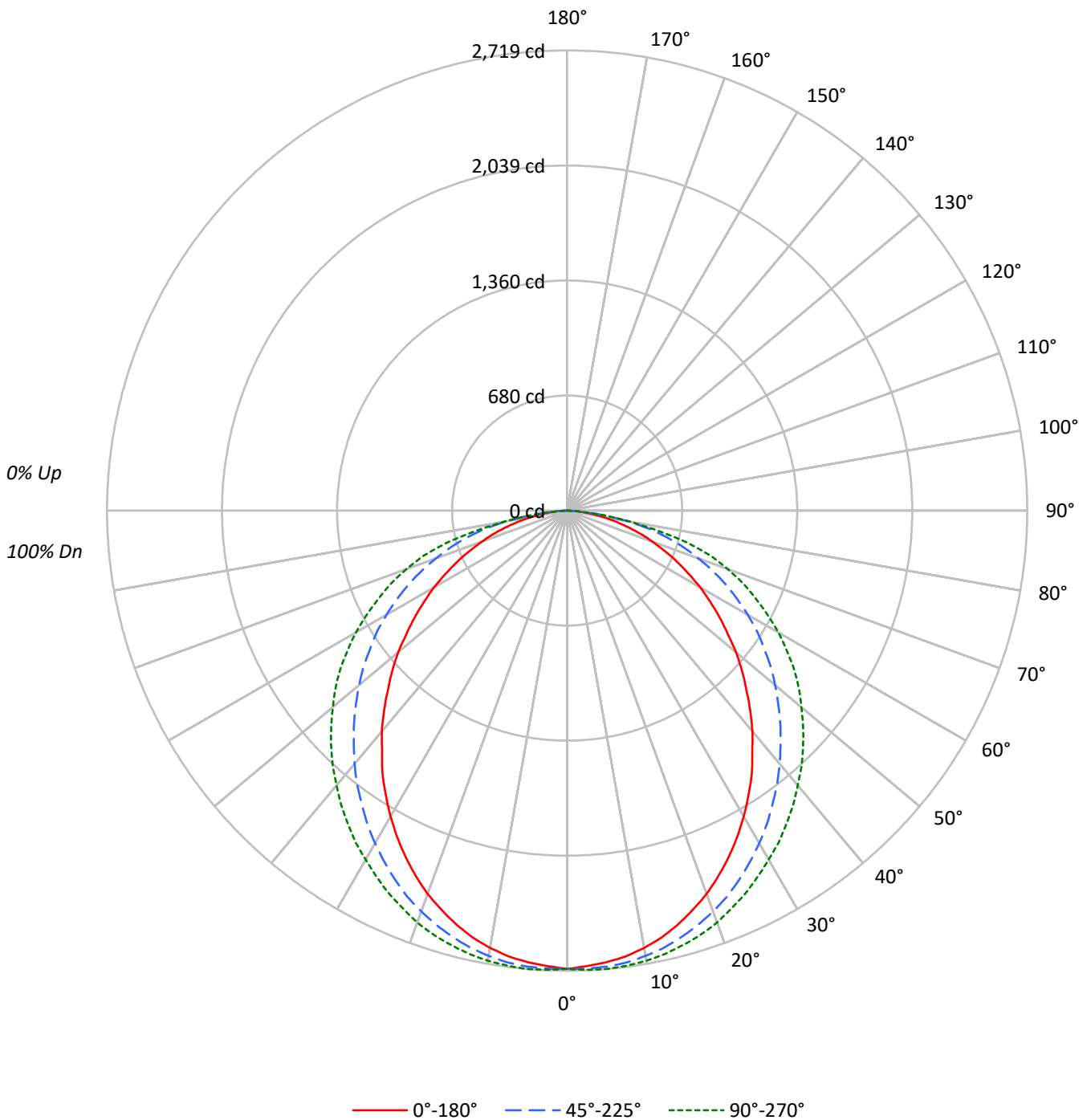
Input Watts (W): 68.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	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	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7288	7288	7288
5°	7236	7306	7345
10°	7169	7300	7380
15°	7053	7268	7401
20°	6902	7218	7418
25°	6708	7145	7407
30°	6483	7054	7397
35°	6250	6951	7422
40°	5985	6864	7445
45°	5699	6777	7506
50°	5453	6716	7564
55°	5162	6663	7682
60°	4892	6634	7763
65°	4569	6584	7826
70°	4198	6485	7932
75°	3788	6312	7651
80°	3250	5588	5759
85°	2612	3294	2612



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	256.7	3.3
10°-20°	734.1	9.5
20°-30°	1102.5	14.2
30°-40°	1314.9	17.0
40°-50°	1359.5	17.5
50°-60°	1249.9	16.1
60°-70°	995.0	12.8
70°-80°	607.9	7.8
80°-90°	132.1	1.7
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°	2093.3	27.0
0°-40°	3408.2	44.0
0°-60°	6017.6	77.6
0°-90°	7752.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7752.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2708	2708	2708	2708	2708	
5°	2679	2686	2704	2716	2719	254
15°	2532	2561	2609	2646	2657	713
25°	2259	2314	2406	2473	2495	1039
35°	1902	1983	2116	2226	2259	1187
45°	1498	1604	1781	1924	1972	1158
55°	1100	1222	1420	1582	1637	984
65°	718	839	1034	1178	1229	711
75°	364	471	607	714	736	388
85°	85	103	107	92	85	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2708.2	2708.2	2708.2	2708.2	2708.2
2.5°	2693.5	2697.2	2708.2	2715.6	2715.6
5°	2678.8	2686.1	2704.5	2715.6	2719.2
7.5°	2656.7	2667.7	2693.5	2708.2	2711.9
10°	2623.6	2638.3	2671.4	2693.5	2700.8
12.5°	2583.1	2605.2	2645.7	2675.1	2682.4
15°	2531.6	2561.0	2608.9	2645.7	2656.7
17.5°	2472.7	2509.5	2568.4	2612.5	2627.3
20°	2410.2	2447.0	2520.5	2572.1	2590.5
22.5°	2336.6	2384.4	2469.0	2527.9	2542.6
25°	2259.3	2314.5	2406.5	2472.7	2494.8
27.5°	2174.7	2240.9	2340.2	2421.2	2439.6
30°	2086.3	2156.3	2270.3	2358.6	2380.7
32.5°	1994.4	2075.3	2196.7	2296.1	2325.5
35°	1902.4	1983.3	2115.8	2226.2	2259.3
37.5°	1795.7	1891.3	2038.5	2152.6	2193.1
40°	1703.7	1795.7	1953.9	2079.0	2119.5
42.5°	1600.6	1700.0	1865.6	2001.7	2049.6
45°	1497.6	1604.3	1780.9	1924.4	1972.3
47.5°	1401.9	1508.6	1692.6	1843.5	1891.3
50°	1302.6	1413.0	1604.3	1758.9	1806.7
52.5°	1195.9	1317.3	1516.0	1670.6	1725.7
55°	1100.2	1221.6	1420.3	1582.2	1637.4
57.5°	1000.9	1126.0	1332.0	1486.6	1538.1
60°	908.9	1030.3	1232.7	1383.5	1442.4
62.5°	809.5	934.6	1133.3	1280.5	1335.7
65°	717.5	839.0	1034.0	1177.5	1229.0
67.5°	625.5	747.0	930.9	1067.1	1126.0
70°	533.5	655.0	824.2	956.7	1008.2
72.5°	452.6	559.3	721.2	842.6	890.5
75°	364.3	471.0	607.1	713.8	735.9
77.5°	283.3	379.0	493.1	540.9	548.3
80°	209.7	283.3	360.6	371.6	371.6
82.5°	139.8	195.0	224.5	228.1	224.5
85°	84.6	103.0	106.7	92.0	84.6
87.5°	29.4	29.4	18.4	11.0	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)