

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: P389480

Luminaire Tested: **22CZ2-90VHE-S-UNV-L950-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: P389480
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: 22CZ2-90VHE-S-UNV-L950-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8693.4 lumens
Efficiency: N/A
Efficacy: 127.5 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

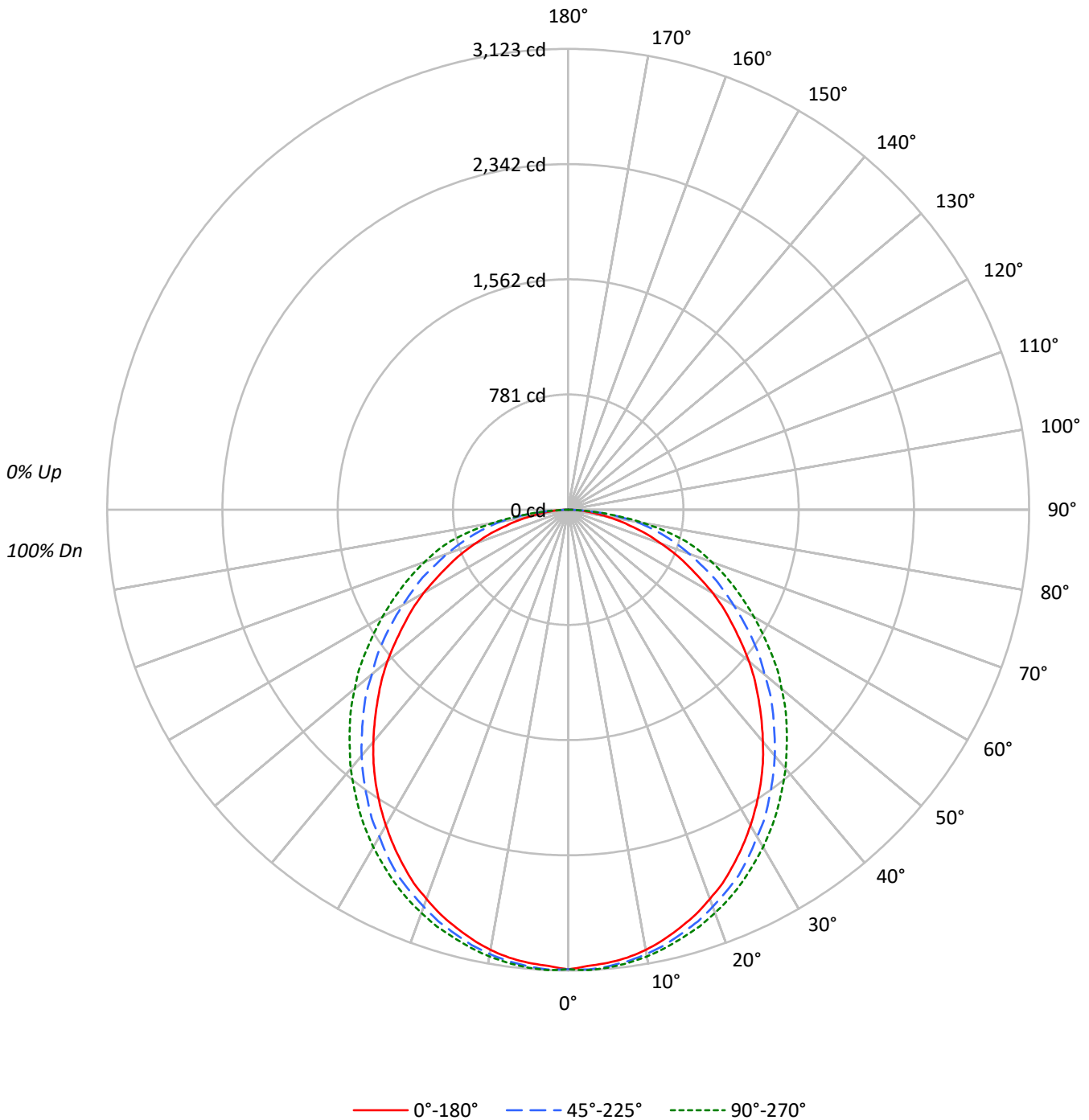
Input Watts (W): 68.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	8383	8383	8383
5°	8327	8393	8415
10°	8279	8357	8401
15°	8170	8283	8362
20°	8038	8200	8328
25°	7876	8117	8274
30°	7676	7953	8205
35°	7462	7808	8128
40°	7210	7651	8050
45°	6946	7471	7965
50°	6690	7268	7896
55°	6375	7136	7840
60°	6091	6964	7815
65°	5682	6921	7903
70°	5234	6862	8138
75°	4723	6959	8561
80°	4085	7166	8046
85°	3381	6011	6011



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	294.6	3.4
10°-20°	838.4	9.6
20°-30°	1254.4	14.4
30°-40°	1485.5	17.1
40°-50°	1513.9	17.4
50°-60°	1356.9	15.6
60°-70°	1062.3	12.2
70°-80°	685.0	7.9
80°-90°	202.4	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°	2387.3	27.5
0°-40°	3872.8	44.5
0°-60°	6743.7	77.6
0°-90°	8693.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8693.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3115	3115	3115	3115	3115	
5°	3083	3091	3107	3111	3115	293
15°	2933	2949	2973	2998	3002	827
25°	2653	2677	2734	2770	2787	1221
35°	2271	2300	2377	2450	2474	1420
45°	1825	1866	1963	2065	2093	1410
55°	1359	1403	1521	1626	1671	1218
65°	892	945	1087	1192	1241	886
75°	454	523	669	783	823	487
85°	110	150	195	195	195	129
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3115.1	3115.1	3115.1	3115.1	3115.1
2.5°	3094.8	3102.9	3119.2	3123.2	3123.2
5°	3082.7	3090.8	3107.0	3111.1	3115.1
7.5°	3062.4	3066.4	3086.7	3094.8	3098.9
10°	3029.9	3038.0	3058.3	3070.5	3074.6
12.5°	2985.3	2997.5	3021.8	3038.0	3042.1
15°	2932.6	2948.8	2973.2	2997.5	3001.5
17.5°	2875.8	2892.0	2924.5	2952.9	2961.0
20°	2806.8	2827.1	2863.6	2896.1	2908.3
22.5°	2737.9	2754.1	2798.7	2839.3	2851.5
25°	2652.7	2677.1	2733.8	2770.3	2786.6
27.5°	2563.5	2591.9	2648.7	2697.3	2713.6
30°	2470.2	2498.6	2559.4	2620.3	2640.5
32.5°	2372.8	2405.3	2478.3	2539.1	2559.4
35°	2271.4	2299.8	2376.9	2449.9	2474.2
37.5°	2166.0	2190.3	2279.6	2356.6	2381.0
40°	2052.4	2084.9	2178.1	2267.4	2291.7
42.5°	1938.8	1975.3	2068.6	2166.0	2190.3
45°	1825.3	1865.8	1963.2	2064.6	2093.0
47.5°	1715.7	1748.2	1857.7	1955.1	1995.6
50°	1598.1	1630.6	1736.0	1845.5	1886.1
52.5°	1476.4	1521.1	1634.6	1740.1	1788.8
55°	1358.8	1403.4	1521.1	1626.5	1671.1
57.5°	1249.3	1285.8	1407.5	1517.0	1561.6
60°	1131.7	1164.1	1293.9	1411.5	1452.1
62.5°	1005.9	1054.6	1188.4	1298.0	1346.6
65°	892.4	945.1	1087.0	1192.5	1241.2
67.5°	786.9	835.6	973.5	1087.0	1139.8
70°	665.2	730.1	872.1	985.6	1034.3
72.5°	567.9	624.6	770.7	884.2	937.0
75°	454.3	523.2	669.3	782.8	823.4
77.5°	361.0	430.0	567.9	657.1	677.4
80°	263.6	332.6	462.4	507.0	519.2
82.5°	178.5	243.4	332.6	344.8	348.8
85°	109.5	150.1	194.7	194.7	194.7
87.5°	52.7	60.8	69.0	64.9	64.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)