

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: P389479

Luminaire Tested: **22CZ2-90VHE-S-UNV-L950-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: P389479  
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-SWPD1-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: 8585.6 lumens  
Efficiency: N/A  
Efficacy: 125.9 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

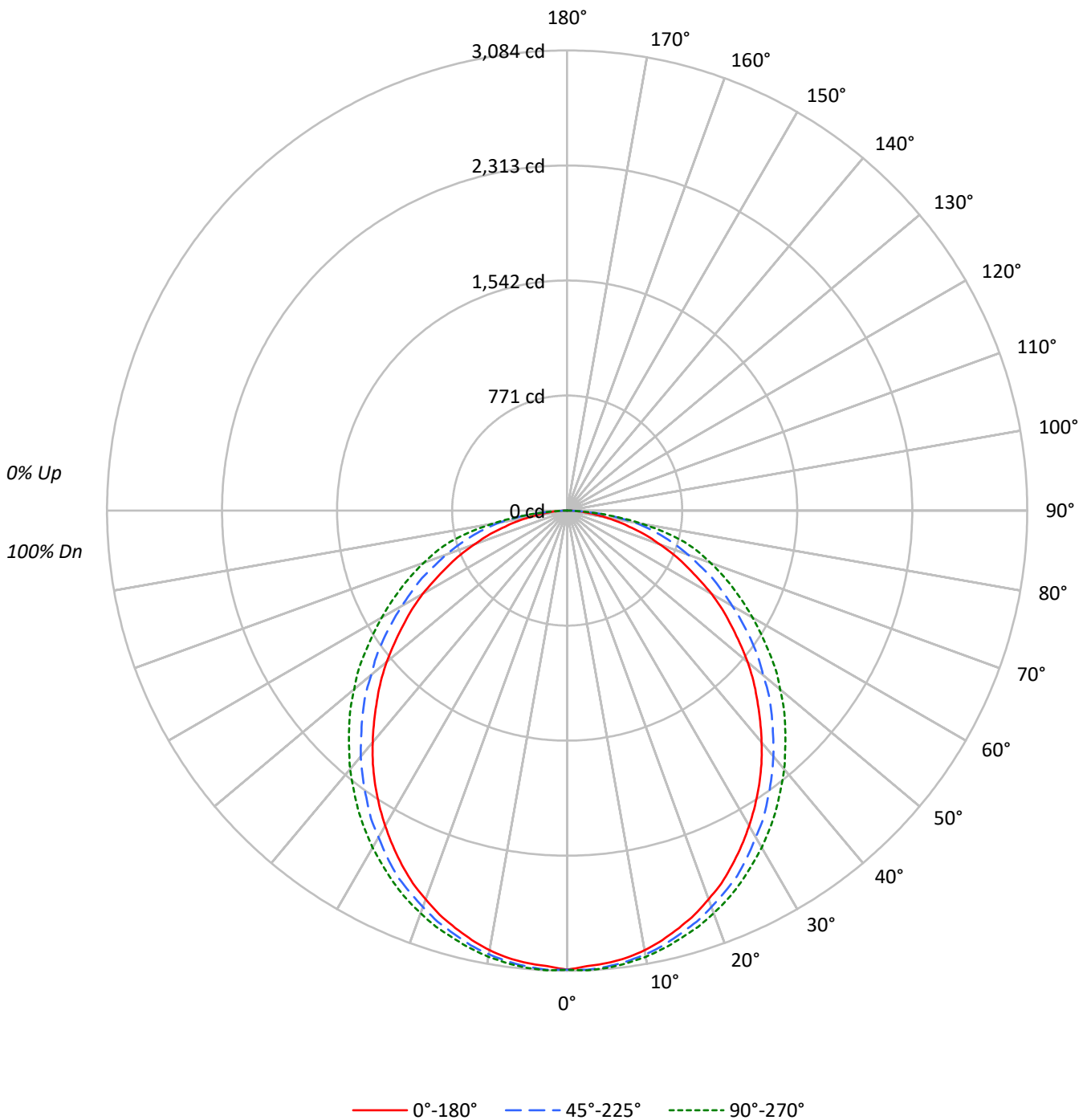
Input Watts (W): 68.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	8279	8279	8279
5°	8224	8289	8310
10°	8177	8253	8297
15°	8069	8180	8258
20°	7938	8099	8225
25°	7779	8016	8171
30°	7581	7854	8103
35°	7369	7711	8027
40°	7120	7556	7951
45°	6860	7378	7866
50°	6607	7178	7798
55°	6296	7048	7743
60°	6015	6878	7718
65°	5612	6836	7805
70°	5169	6777	8037
75°	4665	6873	8455
80°	4035	7077	7945
85°	3341	5937	5937



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	290.9	3.4
10°-20°	828.0	9.6
20°-30°	1238.8	14.4
30°-40°	1467.1	17.1
40°-50°	1495.1	17.4
50°-60°	1340.1	15.6
60°-70°	1049.2	12.2
70°-80°	676.5	7.9
80°-90°	199.9	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°	2357.7	27.5
0°-40°	3824.8	44.5
0°-60°	6660.0	77.6
0°-90°	8585.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8585.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3076	3076	3076	3076	3076	
5°	3044	3052	3068	3072	3076	289
15°	2896	2912	2936	2960	2964	817
25°	2620	2644	2700	2736	2752	1206
35°	2243	2271	2347	2420	2444	1402
45°	1803	1843	1939	2039	2067	1392
55°	1342	1386	1502	1606	1650	1203
65°	881	933	1074	1178	1226	875
75°	449	517	661	773	813	481
85°	108	148	192	192	192	127
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3076.5	3076.5	3076.5	3076.5	3076.5
2.5°	3056.5	3064.5	3080.5	3084.5	3084.5
5°	3044.4	3052.5	3068.5	3072.5	3076.5
7.5°	3024.4	3028.4	3048.4	3056.5	3060.5
10°	2992.4	3000.4	3020.4	3032.4	3036.4
12.5°	2948.3	2960.3	2984.4	3000.4	3004.4
15°	2896.2	2912.2	2936.3	2960.3	2964.3
17.5°	2840.1	2856.2	2888.2	2916.3	2924.3
20°	2772.0	2792.1	2828.1	2860.2	2872.2
22.5°	2703.9	2720.0	2764.0	2804.1	2816.1
25°	2619.8	2643.9	2699.9	2736.0	2752.0
27.5°	2531.7	2559.7	2615.8	2663.9	2679.9
30°	2439.6	2467.6	2527.7	2587.8	2607.8
32.5°	2343.4	2375.5	2447.6	2507.7	2527.7
35°	2243.3	2271.3	2347.4	2419.5	2443.6
37.5°	2139.1	2163.2	2251.3	2327.4	2351.4
40°	2027.0	2059.0	2151.1	2239.3	2263.3
42.5°	1914.8	1950.8	2043.0	2139.1	2163.2
45°	1802.6	1842.7	1938.8	2039.0	2067.0
47.5°	1694.5	1726.5	1834.7	1930.8	1970.9
50°	1578.3	1610.3	1714.5	1822.7	1862.7
52.5°	1458.1	1502.2	1614.4	1718.5	1766.6
55°	1342.0	1386.0	1502.2	1606.3	1650.4
57.5°	1233.8	1269.9	1390.0	1498.2	1542.2
60°	1117.6	1149.7	1277.9	1394.0	1434.1
62.5°	993.4	1041.5	1173.7	1281.9	1329.9
65°	881.3	933.4	1073.6	1177.7	1225.8
67.5°	777.1	825.2	961.4	1073.6	1125.6
70°	657.0	721.1	861.3	973.4	1021.5
72.5°	560.8	616.9	761.1	873.3	925.3
75°	448.7	516.8	661.0	773.1	813.2
77.5°	356.5	424.6	560.8	648.9	669.0
80°	260.4	328.5	456.7	500.7	512.7
82.5°	176.3	240.4	328.5	340.5	344.5
85°	108.2	148.2	192.3	192.3	192.3
87.5°	52.1	60.1	68.1	64.1	64.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)