

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: P388534

Luminaire Tested: **22CZ2-90VHE-UNV-L930-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: P388534
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-L930-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7435.4 lumens
Efficiency: N/A
Efficacy: 109.0 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

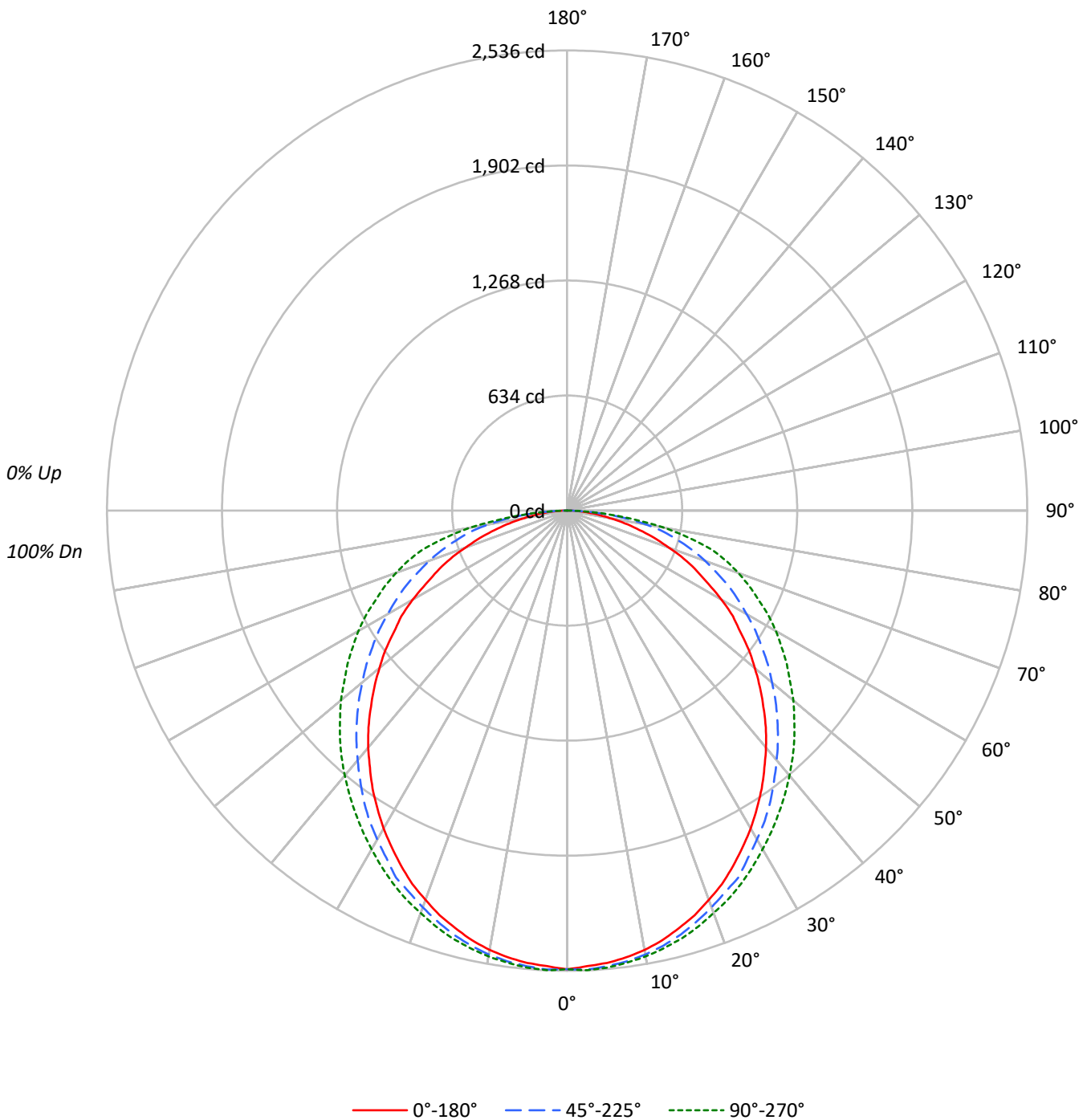
Input Watts (W): 68.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6803	6803	6803
5°	6760	6810	6829
10°	6718	6788	6818
15°	6635	6737	6799
20°	6538	6663	6758
25°	6420	6627	6735
30°	6287	6503	6696
35°	6142	6418	6683
40°	5989	6310	6696
45°	5820	6238	6739
50°	5652	6173	6816
55°	5459	6145	6935
60°	5297	6144	7148
65°	5032	6243	7408
70°	4692	6362	7888
75°	4298	6581	8521
80°	3742	6860	8391
85°	3276	6101	6666



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	239.1	3.2
10°-20°	681.0	9.2
20°-30°	1022.3	13.7
30°-40°	1221.6	16.4
40°-50°	1270.3	17.1
50°-60°	1177.4	15.8
60°-70°	965.7	13.0
70°-80°	652.8	8.8
80°-90°	205.1	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°	1942.5	26.1
0°-40°	3164.1	42.6
0°-60°	5611.7	75.5
0°-90°	7435.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7435.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2528	2528	2528	2528	2528	
5°	2503	2506	2521	2524	2528	238
15°	2382	2393	2418	2433	2440	672
25°	2162	2181	2232	2257	2268	996
35°	1870	1895	1954	2012	2034	1169
45°	1529	1559	1639	1734	1771	1181
55°	1164	1200	1310	1427	1478	1046
65°	790	834	980	1109	1164	781
75°	413	483	633	761	820	438
85°	106	146	198	220	216	120
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2528.2	2528.2	2528.2	2528.2	2528.2
2.5°	2513.5	2520.9	2531.8	2535.5	2535.5
5°	2502.6	2506.2	2520.9	2524.5	2528.2
7.5°	2484.3	2491.6	2506.2	2509.9	2513.5
10°	2458.7	2466.0	2484.3	2491.6	2495.2
12.5°	2425.7	2433.0	2455.0	2466.0	2469.6
15°	2381.8	2392.8	2418.4	2433.0	2440.4
17.5°	2337.9	2348.9	2374.5	2396.5	2403.8
20°	2283.0	2308.7	2326.9	2356.2	2359.9
22.5°	2228.2	2242.8	2275.7	2305.0	2319.6
25°	2162.3	2180.6	2231.8	2257.4	2268.4
27.5°	2092.8	2118.4	2158.6	2198.9	2213.5
30°	2023.3	2041.6	2092.8	2140.3	2155.0
32.5°	1946.4	1972.0	2026.9	2074.5	2096.4
35°	1869.6	1895.2	1953.8	2012.3	2034.2
37.5°	1785.5	1814.7	1873.3	1942.8	1972.0
40°	1705.0	1726.9	1796.4	1880.6	1906.2
42.5°	1620.8	1646.4	1719.6	1811.1	1840.3
45°	1529.3	1558.6	1639.1	1734.2	1770.8
47.5°	1441.5	1470.8	1558.6	1653.7	1697.6
50°	1350.1	1386.7	1474.5	1584.2	1628.1
52.5°	1262.3	1295.2	1394.0	1507.4	1547.6
55°	1163.5	1200.1	1309.8	1426.9	1478.1
57.5°	1083.0	1108.6	1229.3	1350.1	1401.3
60°	984.2	1017.1	1141.5	1269.6	1328.1
62.5°	878.1	933.0	1061.0	1192.7	1251.3
65°	790.3	834.2	980.5	1108.6	1163.5
67.5°	698.8	746.4	889.1	1024.4	1086.6
70°	596.4	658.6	808.6	943.9	1002.5
72.5°	504.9	570.8	724.4	856.1	918.3
75°	413.4	483.0	633.0	761.0	819.6
77.5°	325.6	402.5	548.8	647.6	684.2
80°	241.5	314.6	442.7	512.2	541.5
82.5°	168.3	230.5	325.6	362.2	369.5
85°	106.1	146.3	197.6	219.5	215.9
87.5°	47.6	58.5	73.2	80.5	76.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)