

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: P389189

Luminaire Tested: **24CZ2-90VHE-SQR-UNV-L935-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: P389189
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-90VHE-SQR-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7350.9 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

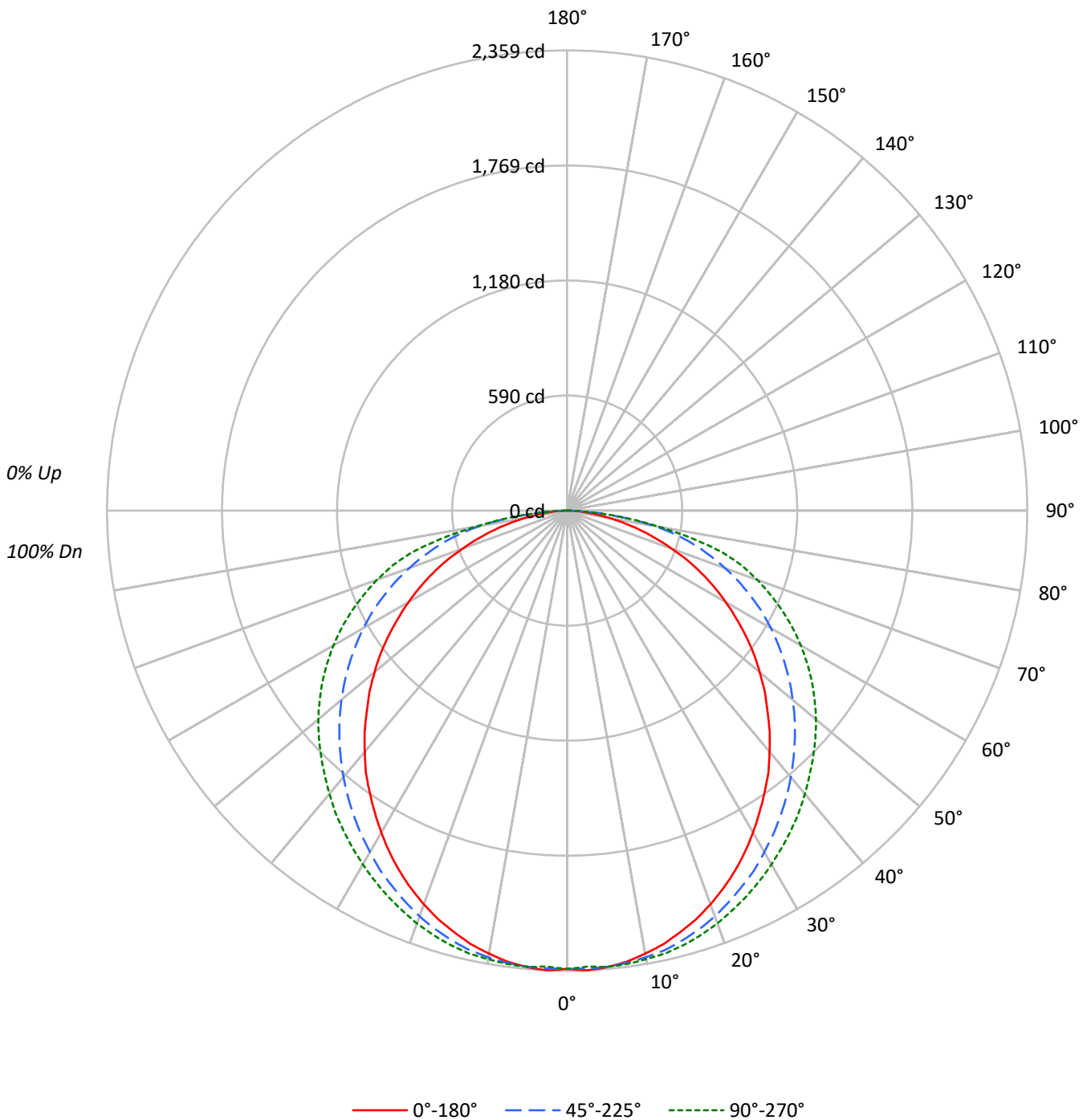
Input Watts (W): 61.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	89		92	89	87		89	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51		62	55	50		60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44		55	49	43		54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38		50	43	38		48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34		45	39	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		42	35	30		40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27		38	32	27		37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24		36	29	24		35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3161	3161	3161
5°	3174	3170	3170
10°	3151	3177	3190
15°	3117	3178	3212
20°	3076	3170	3225
25°	3024	3153	3236
30°	2960	3141	3255
35°	2899	3134	3285
40°	2835	3134	3330
45°	2762	3141	3395
50°	2698	3160	3486
55°	2619	3194	3593
60°	2528	3246	3723
65°	2419	3308	3879
70°	2244	3390	4078
75°	2032	3508	4265
80°	1712	3517	3667
85°	1312	2660	2660



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.0	3.0
10°-20°	641.7	8.7
20°-30°	974.7	13.3
30°-40°	1185.6	16.1
40°-50°	1262.3	17.2
50°-60°	1202.3	16.4
60°-70°	1005.4	13.7
70°-80°	670.3	9.1
80°-90°	185.5	2.5
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°	1839.5	25.0
0°-40°	3025.1	41.2
0°-60°	5489.7	74.7
0°-90°	7350.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7350.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2350	2350	2350	2350	2350	
5°	2350	2335	2347	2347	2347	223
15°	2238	2243	2282	2299	2306	631
25°	2037	2063	2124	2160	2180	938
35°	1765	1816	1908	1971	2000	1104
45°	1452	1529	1651	1743	1784	1122
55°	1117	1214	1362	1481	1532	998
65°	760	871	1039	1168	1218	751
75°	391	515	675	789	820	414
85°	85	158	172	170	172	103
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2349.7	2349.7	2349.7	2349.7	2349.7
2.5°	2359.4	2342.4	2349.7	2349.7	2340.0
5°	2349.7	2335.1	2347.3	2347.3	2347.3
7.5°	2332.7	2320.6	2340.0	2344.9	2344.9
10°	2306.0	2301.2	2325.4	2332.7	2335.1
12.5°	2276.9	2274.5	2308.4	2318.1	2325.4
15°	2238.0	2242.9	2281.7	2298.7	2306.0
17.5°	2196.8	2206.5	2250.2	2274.5	2281.7
20°	2148.2	2162.8	2213.8	2238.0	2252.6
22.5°	2094.8	2116.7	2170.1	2199.2	2216.2
25°	2036.6	2063.3	2124.0	2160.4	2179.8
27.5°	1973.5	2007.4	2077.8	2119.1	2138.5
30°	1905.5	1944.3	2022.0	2070.6	2094.8
32.5°	1835.1	1881.2	1966.2	2019.6	2048.7
35°	1764.7	1815.7	1907.9	1971.0	2000.2
37.5°	1694.3	1745.3	1847.2	1915.2	1951.6
40°	1614.2	1674.9	1784.1	1859.4	1895.8
42.5°	1536.5	1602.1	1718.6	1801.1	1840.0
45°	1451.6	1529.3	1650.6	1742.9	1784.1
47.5°	1373.9	1451.6	1582.7	1679.7	1725.9
50°	1288.9	1371.5	1509.8	1616.6	1665.2
52.5°	1206.4	1291.4	1437.0	1551.1	1599.6
55°	1116.6	1213.7	1361.8	1480.7	1531.7
57.5°	1026.8	1131.2	1284.1	1407.9	1458.9
60°	939.4	1046.2	1206.4	1330.2	1383.6
62.5°	852.0	958.8	1126.3	1252.5	1303.5
65°	759.8	871.4	1038.9	1167.6	1218.5
67.5°	667.5	784.0	951.5	1080.2	1128.7
70°	570.4	694.2	861.7	987.9	1036.5
72.5°	480.6	604.4	769.5	893.3	939.4
75°	390.8	514.6	674.8	788.9	820.5
77.5°	303.4	427.2	570.4	645.7	653.0
80°	220.9	337.4	453.9	475.8	473.3
82.5°	148.1	252.4	313.1	315.6	322.8
85°	85.0	157.8	172.3	169.9	172.3
87.5°	34.0	55.8	48.5	36.4	36.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)