

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: P389208

Luminaire Tested: **24CZ2-95VHE-SQR-UNV-L930-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: P389208
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: 24CZ2-95VHE-SQR-UNV-L930-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7360.8 lumens
Efficiency: N/A
Efficacy: 112.2 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

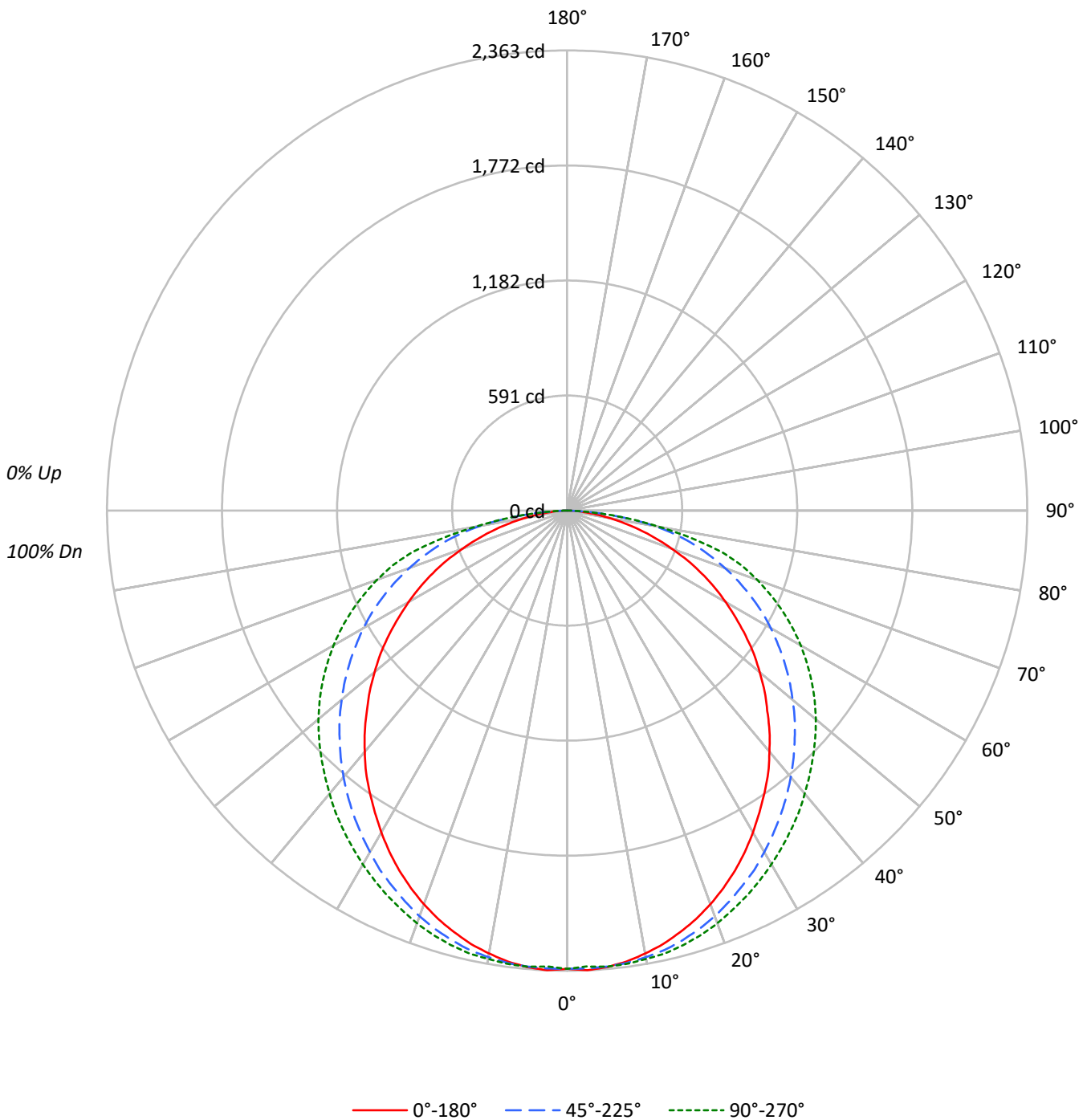
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3166	3166	3166
5°	3178	3175	3175
10°	3155	3181	3195
15°	3122	3183	3216
20°	3080	3174	3230
25°	3028	3157	3240
30°	2964	3146	3259
35°	2903	3138	3290
40°	2839	3138	3334
45°	2766	3145	3399
50°	2702	3165	3490
55°	2623	3199	3598
60°	2531	3251	3728
65°	2422	3312	3885
70°	2247	3395	4083
75°	2034	3513	4271
80°	1714	3522	3673
85°	1314	2665	2665



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.3	3.0
10°-20°	642.6	8.7
20°-30°	976.0	13.3
30°-40°	1187.2	16.1
40°-50°	1264.0	17.2
50°-60°	1203.9	16.4
60°-70°	1006.8	13.7
70°-80°	671.3	9.1
80°-90°	185.7	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°	1842.0	25.0
0°-40°	3029.2	41.2
0°-60°	5497.0	74.7
0°-90°	7360.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7360.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2353	2353	2353	2353	2353	
5°	2353	2338	2350	2350	2350	223
15°	2241	2246	2285	2302	2309	632
25°	2039	2066	2127	2163	2183	939
35°	1767	1818	1910	1974	2003	1106
45°	1454	1531	1653	1745	1786	1124
55°	1118	1215	1364	1483	1534	1000
65°	761	873	1040	1169	1220	752
75°	391	515	676	790	822	415
85°	85	158	173	170	173	103
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2352.9	2352.9	2352.9	2352.9	2352.9
2.5°	2362.6	2345.6	2352.9	2352.9	2343.1
5°	2352.9	2338.3	2350.4	2350.4	2350.4
7.5°	2335.9	2323.7	2343.1	2348.0	2348.0
10°	2309.1	2304.3	2328.6	2335.9	2338.3
12.5°	2280.0	2277.5	2311.5	2321.3	2328.6
15°	2241.1	2245.9	2284.8	2301.8	2309.1
17.5°	2199.7	2209.5	2253.2	2277.5	2284.8
20°	2151.1	2165.7	2216.8	2241.1	2255.6
22.5°	2097.7	2119.5	2173.0	2202.2	2219.2
25°	2039.3	2066.1	2126.8	2163.3	2182.7
27.5°	1976.1	2010.1	2080.6	2122.0	2141.4
30°	1908.1	1947.0	2024.7	2073.3	2097.7
32.5°	1837.6	1883.8	1968.8	2022.3	2051.5
35°	1767.1	1818.1	1910.5	1973.7	2002.9
37.5°	1696.6	1747.6	1849.7	1917.8	1954.2
40°	1616.4	1677.1	1786.5	1861.9	1898.3
42.5°	1538.6	1604.2	1720.9	1803.5	1842.4
45°	1453.5	1531.3	1652.8	1745.2	1786.5
47.5°	1375.7	1453.5	1584.8	1682.0	1728.2
50°	1290.7	1373.3	1511.9	1618.8	1667.4
52.5°	1208.0	1293.1	1438.9	1553.2	1601.8
55°	1118.1	1215.3	1363.6	1482.7	1533.7
57.5°	1028.2	1132.7	1285.8	1409.8	1460.8
60°	940.7	1047.6	1208.0	1332.0	1385.5
62.5°	853.2	960.1	1127.8	1254.2	1305.3
65°	760.8	872.6	1040.3	1169.1	1220.2
67.5°	668.4	785.1	952.8	1081.6	1130.3
70°	571.2	695.2	862.9	989.3	1037.9
72.5°	481.3	605.2	770.5	894.5	940.7
75°	391.3	515.3	675.7	790.0	821.6
77.5°	303.8	427.8	571.2	646.6	653.8
80°	221.2	337.9	454.5	476.4	474.0
82.5°	148.3	252.8	313.6	316.0	323.3
85°	85.1	158.0	172.6	170.1	172.6
87.5°	34.0	55.9	48.6	36.5	36.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)