

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: P389213

Luminaire Tested: **24CZ2-95VHE-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: P389213
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-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: 7730.9 lumens
Efficiency: N/A
Efficacy: 117.8 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

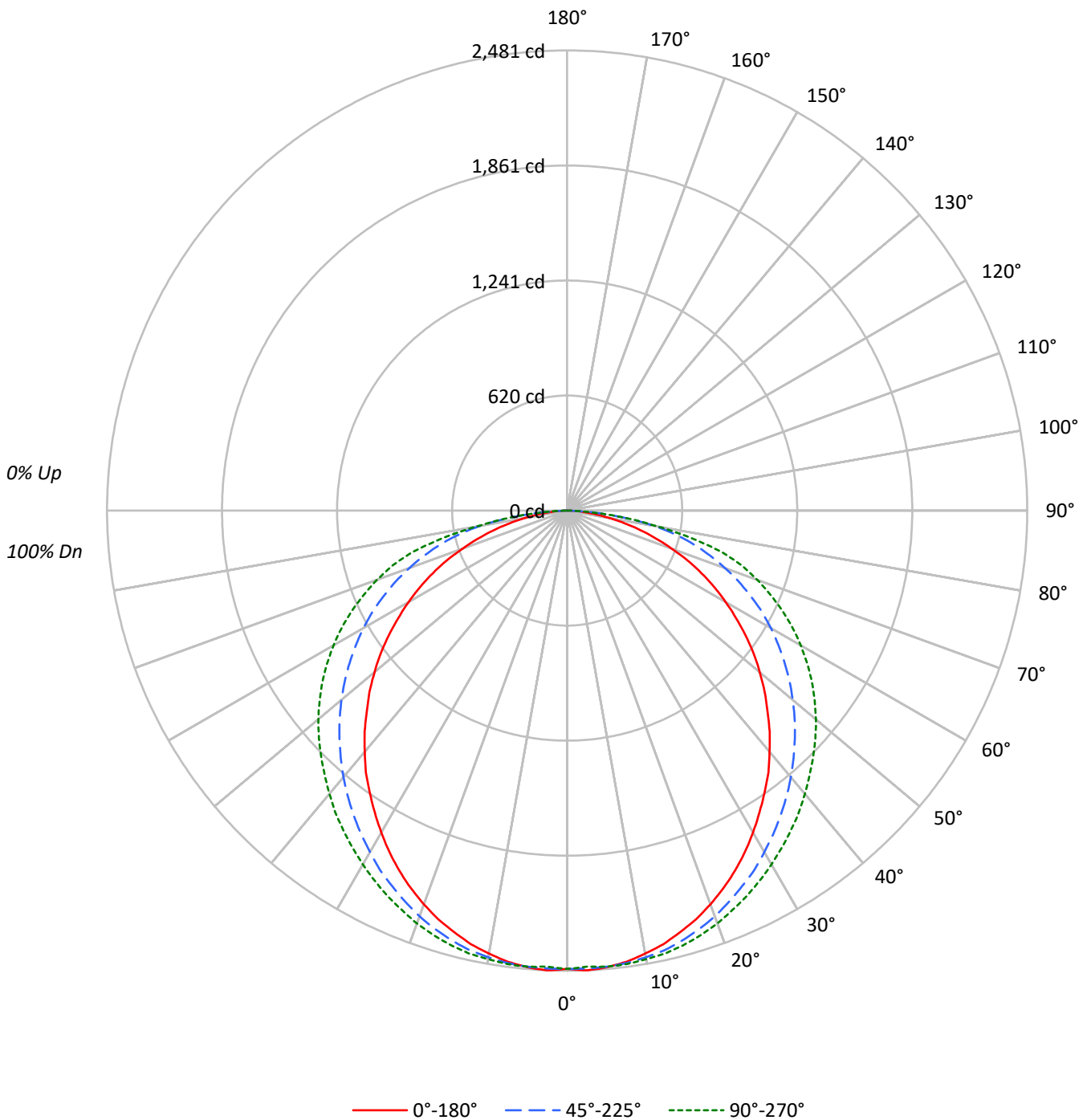
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3325	3325	3325
5°	3338	3334	3334
10°	3313	3341	3355
15°	3279	3343	3378
20°	3235	3334	3392
25°	3180	3316	3403
30°	3113	3304	3423
35°	3048	3296	3455
40°	2982	3296	3502
45°	2905	3303	3570
50°	2838	3324	3666
55°	2755	3360	3779
60°	2659	3414	3916
65°	2544	3479	4080
70°	2360	3565	4288
75°	2137	3689	4486
80°	1800	3699	3857
85°	1380	2799	2799



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.6	3.0
10°-20°	674.9	8.7
20°-30°	1025.1	13.3
30°-40°	1246.9	16.1
40°-50°	1327.6	17.2
50°-60°	1264.4	16.4
60°-70°	1057.4	13.7
70°-80°	705.0	9.1
80°-90°	195.1	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°	1934.6	25.0
0°-40°	3181.5	41.2
0°-60°	5773.4	74.7
0°-90°	7730.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7730.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2471	2471	2471	2471	2471	
5°	2471	2456	2469	2469	2469	234
15°	2354	2359	2400	2418	2425	664
25°	2142	2170	2234	2272	2292	986
35°	1856	1910	2007	2073	2104	1161
45°	1527	1608	1736	1833	1876	1180
55°	1174	1276	1432	1557	1611	1050
65°	799	916	1093	1228	1282	789
75°	411	541	710	830	863	435
85°	89	166	181	179	181	108
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2471.2	2471.2	2471.2	2471.2	2471.2
2.5°	2481.4	2463.5	2471.2	2471.2	2461.0
5°	2471.2	2455.9	2468.6	2468.6	2468.6
7.5°	2453.3	2440.5	2461.0	2466.1	2466.1
10°	2425.2	2420.1	2445.6	2453.3	2455.9
12.5°	2394.6	2392.0	2427.8	2438.0	2445.6
15°	2353.7	2358.8	2399.7	2417.6	2425.2
17.5°	2310.3	2320.6	2366.5	2392.0	2399.7
20°	2259.3	2274.6	2328.2	2353.7	2369.1
22.5°	2203.1	2226.1	2282.3	2312.9	2330.8
25°	2141.9	2169.9	2233.8	2272.0	2292.5
27.5°	2075.5	2111.2	2185.3	2228.6	2249.1
30°	2004.0	2044.8	2126.5	2177.6	2203.1
32.5°	1930.0	1978.5	2067.8	2124.0	2154.6
35°	1855.9	1909.5	2006.6	2072.9	2103.6
37.5°	1781.9	1835.5	1942.7	2014.2	2052.5
40°	1697.7	1761.5	1876.4	1955.5	1993.8
42.5°	1616.0	1684.9	1807.4	1894.2	1935.1
45°	1526.6	1608.3	1735.9	1833.0	1876.4
47.5°	1444.9	1526.6	1664.5	1766.6	1815.1
50°	1355.6	1442.4	1587.9	1700.2	1751.3
52.5°	1268.8	1358.1	1511.3	1631.3	1682.3
55°	1174.3	1276.4	1432.2	1557.2	1610.9
57.5°	1079.9	1189.6	1350.5	1480.7	1534.3
60°	988.0	1100.3	1268.8	1399.0	1455.1
62.5°	896.1	1008.4	1184.5	1317.3	1370.9
65°	799.0	916.5	1092.6	1227.9	1281.5
67.5°	702.0	824.6	1000.7	1136.0	1187.1
70°	599.9	730.1	906.3	1039.0	1090.1
72.5°	505.5	635.7	809.3	939.5	988.0
75°	411.0	541.2	709.7	829.7	862.9
77.5°	319.1	449.3	599.9	679.1	686.7
80°	232.3	354.8	477.4	500.4	497.8
82.5°	155.7	265.5	329.3	331.9	339.5
85°	89.4	165.9	181.3	178.7	181.3
87.5°	35.7	58.7	51.1	38.3	38.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)