

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: P389211

Luminaire Tested: **24CZ2-95VHE-SQR-UNV-L935-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: P389211
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-SDWPD1-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: 7542.9 lumens
Efficiency: N/A
Efficacy: 115.0 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

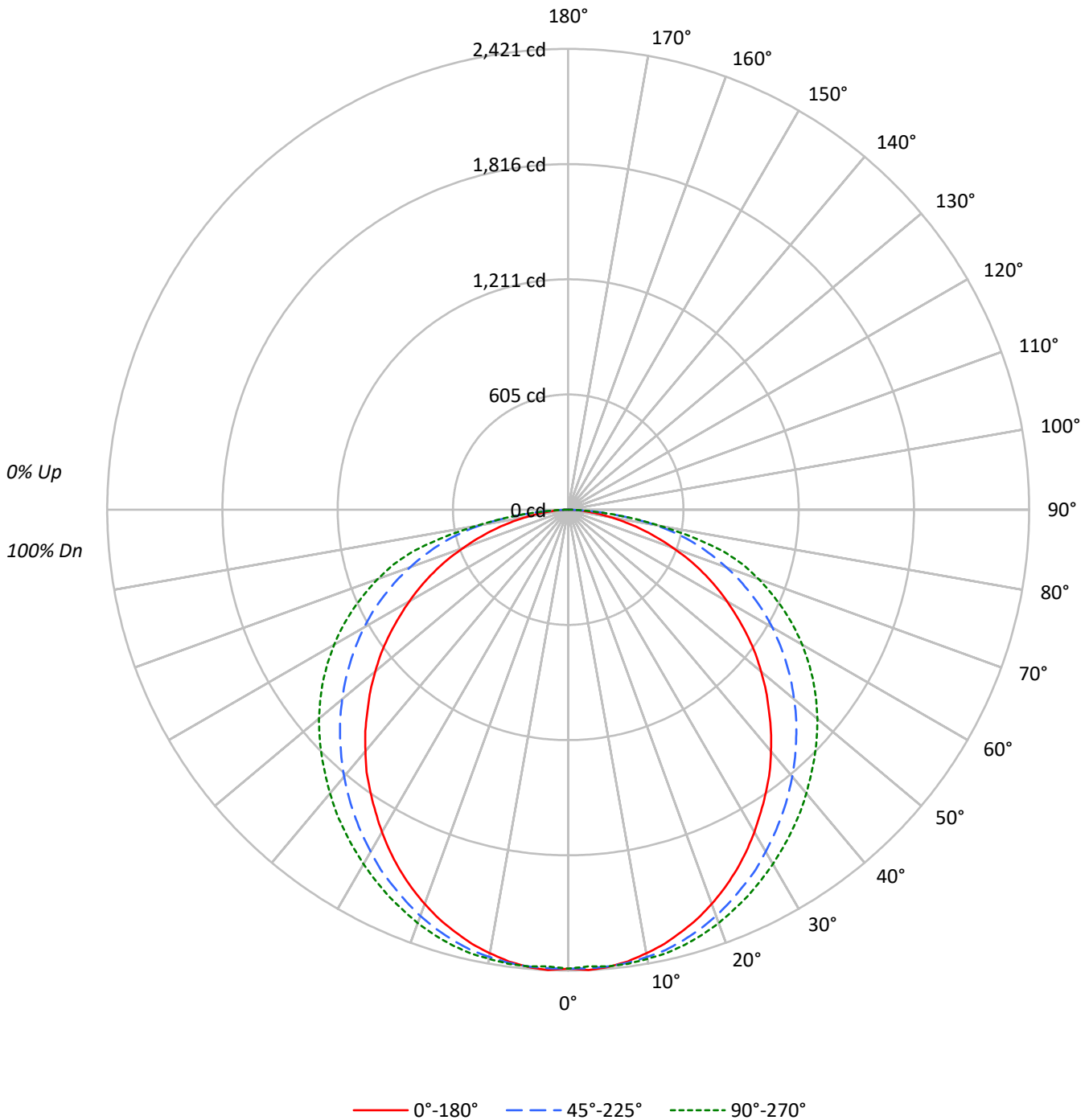
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3244	3244	3244
5°	3257	3253	3253
10°	3233	3260	3274
15°	3199	3261	3296
20°	3156	3253	3310
25°	3102	3236	3321
30°	3038	3223	3340
35°	2974	3216	3371
40°	2909	3215	3417
45°	2834	3223	3483
50°	2768	3243	3577
55°	2688	3278	3687
60°	2594	3331	3820
65°	2482	3394	3981
70°	2303	3478	4184
75°	2085	3599	4377
80°	1757	3609	3763
85°	1346	2729	2729



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.9	3.0
10°-20°	658.5	8.7
20°-30°	1000.2	13.3
30°-40°	1216.6	16.1
40°-50°	1295.3	17.2
50°-60°	1233.7	16.4
60°-70°	1031.7	13.7
70°-80°	687.8	9.1
80°-90°	190.3	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°	1887.5	25.0
0°-40°	3104.1	41.2
0°-60°	5633.0	74.7
0°-90°	7542.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7542.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2411	2411	2411	2411	2411	
5°	2411	2396	2409	2409	2409	229
15°	2296	2302	2341	2359	2366	648
25°	2090	2117	2179	2217	2237	962
35°	1811	1863	1958	2022	2052	1133
45°	1490	1569	1694	1788	1831	1151
55°	1146	1245	1397	1519	1572	1024
65°	780	894	1066	1198	1250	770
75°	401	528	692	810	842	425
85°	87	162	177	174	177	105
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2411.1	2411.1	2411.1	2411.1	2411.1
2.5°	2421.0	2403.6	2411.1	2411.1	2401.1
5°	2411.1	2396.1	2408.6	2408.6	2408.6
7.5°	2393.6	2381.2	2401.1	2406.1	2406.1
10°	2366.2	2361.3	2386.2	2393.6	2396.1
12.5°	2336.4	2333.9	2368.7	2378.7	2386.2
15°	2296.5	2301.5	2341.3	2358.8	2366.2
17.5°	2254.2	2264.1	2309.0	2333.9	2341.3
20°	2204.3	2219.3	2271.6	2296.5	2311.4
22.5°	2149.5	2172.0	2226.8	2256.6	2274.1
25°	2089.8	2117.2	2179.4	2216.8	2236.7
27.5°	2025.0	2059.9	2132.1	2174.5	2194.4
30°	1955.3	1995.1	2074.8	2124.6	2149.5
32.5°	1883.0	1930.4	2017.5	2072.3	2102.2
35°	1810.8	1863.1	1957.8	2022.5	2052.4
37.5°	1738.6	1790.9	1895.5	1965.2	2002.6
40°	1656.4	1718.6	1830.7	1907.9	1945.3
42.5°	1576.7	1643.9	1763.5	1848.2	1888.0
45°	1489.5	1569.2	1693.7	1788.4	1830.7
47.5°	1409.8	1489.5	1624.0	1723.6	1770.9
50°	1322.6	1407.3	1549.3	1658.9	1708.7
52.5°	1237.9	1325.1	1474.5	1591.6	1641.4
55°	1145.8	1245.4	1397.3	1519.4	1571.7
57.5°	1053.6	1160.7	1317.6	1444.7	1497.0
60°	963.9	1073.5	1237.9	1364.9	1419.7
62.5°	874.3	983.9	1155.7	1285.2	1337.6
65°	779.6	894.2	1066.1	1198.1	1250.4
67.5°	685.0	804.5	976.4	1108.4	1158.2
70°	585.3	712.4	884.2	1013.7	1063.6
72.5°	493.2	620.2	789.6	916.6	963.9
75°	401.0	528.0	692.4	809.5	841.9
77.5°	311.3	438.4	585.3	662.5	670.0
80°	226.7	346.2	465.8	488.2	485.7
82.5°	151.9	259.0	321.3	323.8	331.3
85°	87.2	161.9	176.8	174.4	176.8
87.5°	34.9	57.3	49.8	37.4	37.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)