

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: P389061

Luminaire Tested: **24CZ2-95VHE-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: P389061
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-95VHE-UNV-L930-CD1-SDWPD1-U
Description: 2x4 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: 7664.5 lumens
Efficiency: N/A
Efficacy: 116.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

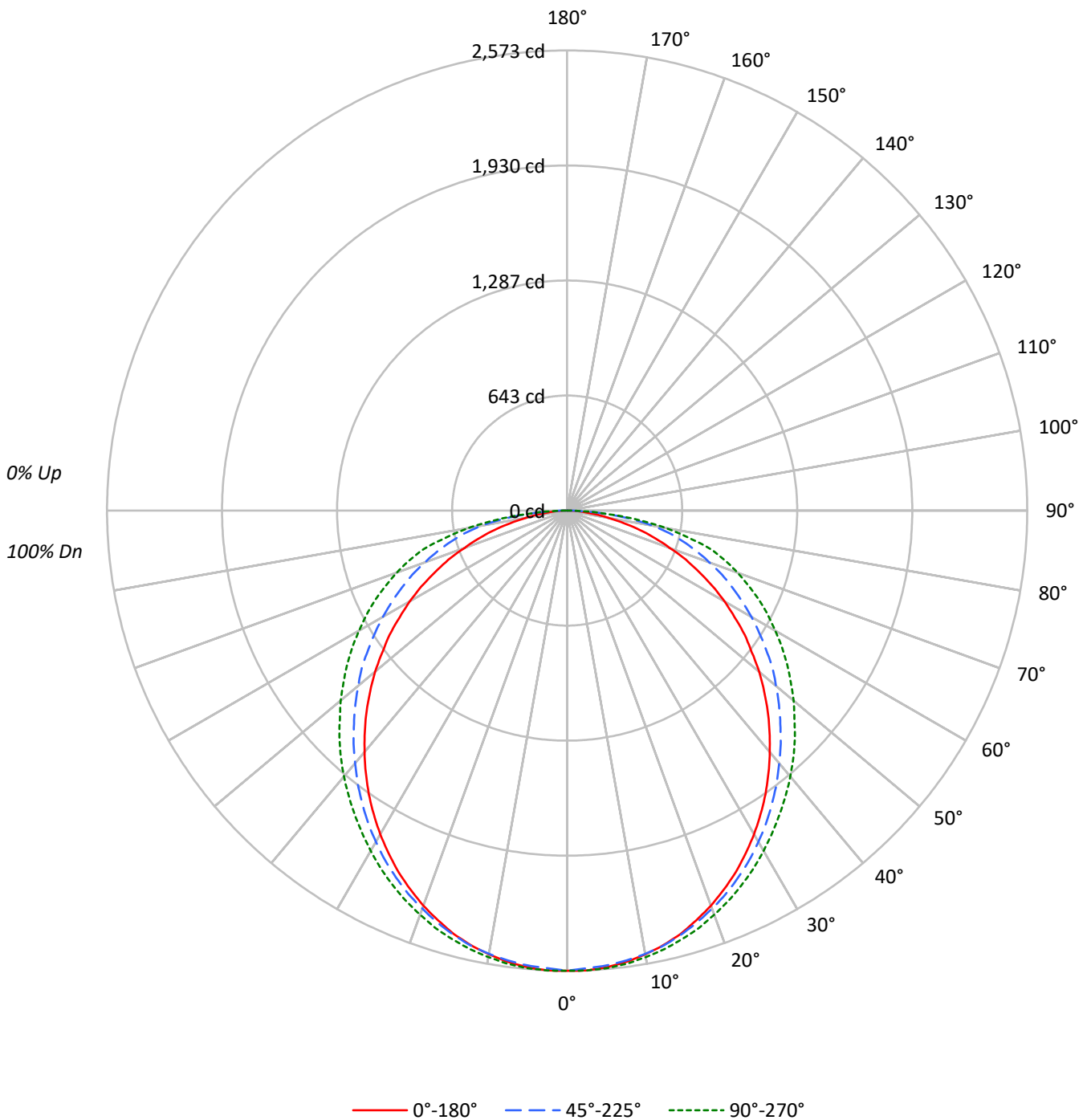
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3462	3462	3462
5°	3462	3448	3469
10°	3442	3439	3463
15°	3413	3421	3456
20°	3366	3392	3443
25°	3312	3361	3429
30°	3247	3322	3414
35°	3176	3281	3403
40°	3095	3239	3410
45°	3018	3208	3427
50°	2934	3191	3459
55°	2844	3186	3522
60°	2733	3201	3614
65°	2590	3249	3770
70°	2405	3331	3985
75°	2194	3497	4322
80°	1804	3766	4320
85°	1382	3475	3713



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.4	3.2
10°-20°	694.8	9.1
20°-30°	1045.6	13.6
30°-40°	1253.0	16.3
40°-50°	1305.8	17.0
50°-60°	1214.9	15.9
60°-70°	1000.6	13.1
70°-80°	681.5	8.9
80°-90°	225.0	2.9
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°	1983.8	25.9
0°-40°	3236.8	42.2
0°-60°	5757.5	75.1
0°-90°	7664.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7664.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2573	2573	2573	2573	2573	
5°	2563	2563	2553	2566	2568	243
15°	2450	2453	2456	2479	2481	690
25°	2231	2241	2264	2302	2310	1027
35°	1934	1957	1998	2052	2072	1209
45°	1586	1619	1686	1770	1801	1223
55°	1212	1253	1358	1466	1502	1081
65°	813	882	1021	1141	1184	807
75°	422	517	673	793	831	445
85°	90	174	225	240	240	111
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2573.3	2573.3	2573.3	2573.3	2573.3
2.5°	2573.3	2573.3	2560.5	2573.3	2573.3
5°	2563.1	2563.1	2552.9	2565.7	2568.2
7.5°	2545.2	2547.7	2537.5	2552.9	2555.4
10°	2519.6	2522.2	2517.1	2532.4	2535.0
12.5°	2488.9	2491.5	2491.5	2509.4	2511.9
15°	2450.5	2453.1	2455.7	2478.7	2481.2
17.5°	2401.9	2409.6	2414.7	2442.9	2448.0
20°	2350.8	2358.5	2368.7	2399.4	2404.5
22.5°	2292.0	2302.2	2320.1	2353.3	2361.0
25°	2230.6	2240.8	2263.8	2302.2	2309.9
27.5°	2161.5	2176.8	2205.0	2245.9	2256.1
30°	2089.9	2105.2	2138.5	2182.0	2197.3
32.5°	2013.1	2033.6	2072.0	2120.6	2135.9
35°	1933.8	1956.9	1997.8	2051.5	2072.0
37.5°	1849.4	1875.0	1923.6	1982.4	2008.0
40°	1762.4	1793.1	1844.3	1913.4	1941.5
42.5°	1675.5	1703.6	1767.6	1841.7	1872.4
45°	1585.9	1619.2	1685.7	1770.1	1800.8
47.5°	1493.9	1527.1	1606.4	1695.9	1724.1
50°	1401.8	1435.0	1524.6	1619.2	1652.5
52.5°	1302.0	1345.5	1447.8	1542.5	1575.7
55°	1212.5	1253.4	1358.3	1465.7	1501.5
57.5°	1110.2	1158.8	1273.9	1386.4	1424.8
60°	1015.5	1066.7	1189.5	1304.6	1342.9
62.5°	918.3	974.6	1105.0	1222.7	1266.2
65°	813.4	882.5	1020.6	1140.9	1184.3
67.5°	718.8	790.4	936.2	1059.0	1097.4
70°	611.4	698.3	846.7	969.5	1013.0
72.5°	519.3	606.2	762.3	882.5	926.0
75°	422.1	516.7	672.7	793.0	831.3
77.5°	324.9	429.7	585.8	677.9	690.7
80°	232.8	342.8	486.0	539.7	557.6
82.5°	163.7	263.5	358.1	393.9	404.2
85°	89.5	173.9	225.1	240.5	240.5
87.5°	38.4	74.2	89.5	92.1	94.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)