

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: P390003

Luminaire Tested: **24CZ2-95VHE-S-UNV-L940-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: P390003
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-95VHE-S-UNV-L940-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8337.9 lumens
Efficiency: N/A
Efficacy: 127.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

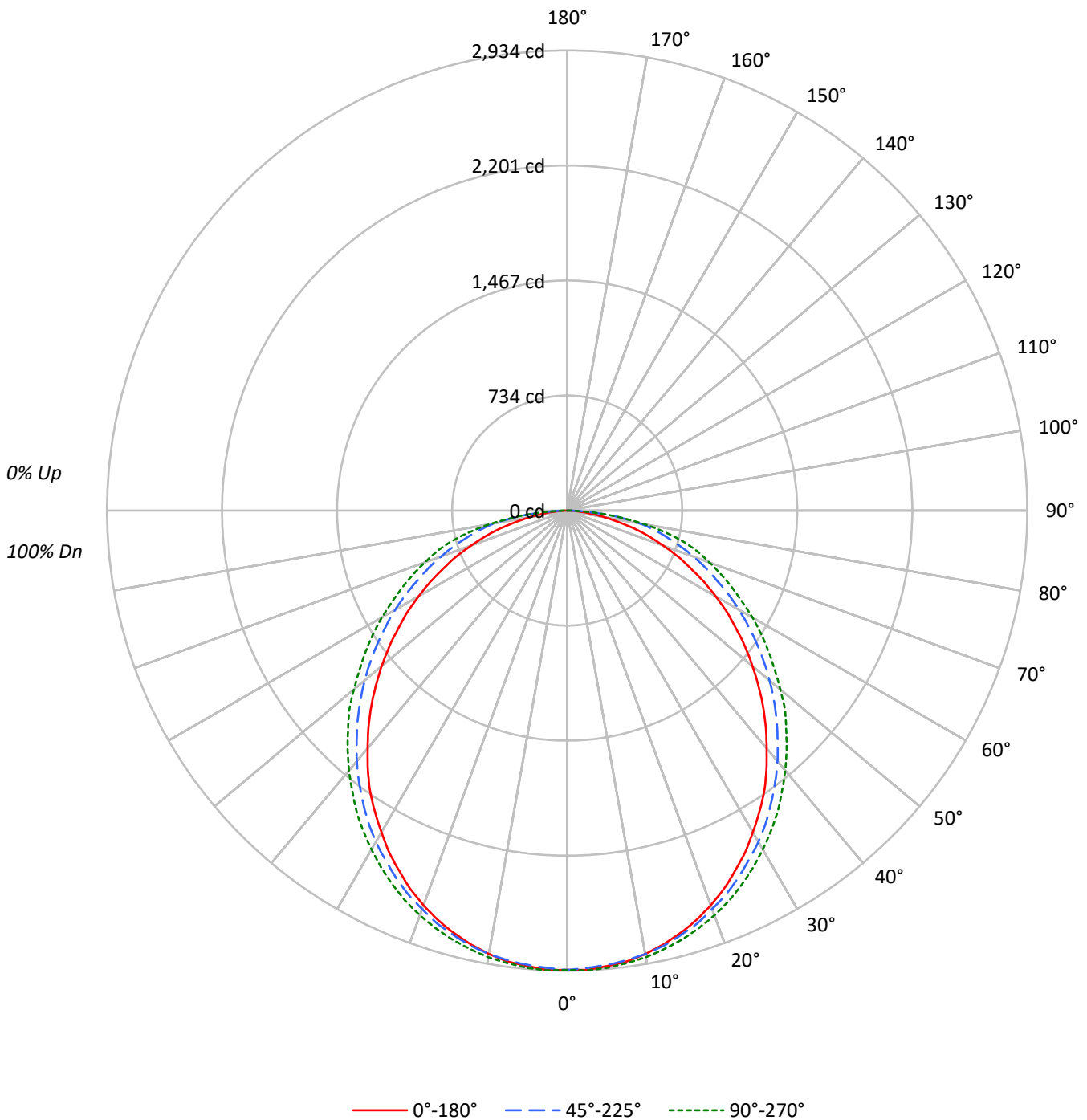
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3941	3941	3941
5°	3938	3928	3953
10°	3922	3922	3951
15°	3885	3903	3944
20°	3834	3872	3932
25°	3763	3833	3908
30°	3679	3790	3876
35°	3597	3728	3846
40°	3475	3666	3801
45°	3361	3593	3759
50°	3232	3526	3714
55°	3088	3461	3678
60°	2943	3407	3670
65°	2757	3347	3693
70°	2553	3365	3792
75°	2285	3428	4007
80°	1847	3632	3919
85°	1389	3189	3108



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.3	3.3
10°-20°	792.4	9.5
20°-30°	1191.1	14.3
30°-40°	1418.8	17.0
40°-50°	1452.1	17.4
50°-60°	1307.3	15.7
60°-70°	1026.6	12.3
70°-80°	666.3	8.0
80°-90°	206.1	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°	2260.8	27.1
0°-40°	3679.5	44.1
0°-60°	6438.9	77.2
0°-90°	8337.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8337.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2929	2929	2929	2929	2929	
5°	2916	2921	2908	2924	2926	277
15°	2789	2797	2802	2826	2831	786
25°	2534	2556	2582	2625	2632	1168
35°	2190	2217	2270	2325	2341	1366
45°	1766	1809	1888	1960	1976	1362
55°	1316	1374	1475	1552	1568	1180
65°	866	932	1051	1139	1160	862
75°	440	524	660	750	771	465
85°	90	167	207	201	201	109
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2929.2	2929.2	2929.2	2929.2	2929.2
2.5°	2931.8	2931.8	2918.6	2931.8	2934.5
5°	2915.9	2921.2	2908.0	2923.9	2926.5
7.5°	2900.0	2900.0	2892.1	2908.0	2910.6
10°	2870.9	2873.5	2870.9	2889.4	2892.1
12.5°	2833.8	2839.1	2841.8	2860.3	2862.9
15°	2788.8	2796.7	2802.0	2825.9	2831.2
17.5°	2738.5	2746.4	2759.7	2786.1	2791.4
20°	2677.6	2688.2	2704.0	2738.5	2746.4
22.5°	2611.3	2621.9	2648.4	2680.2	2693.4
25°	2534.5	2555.7	2582.2	2624.6	2632.5
27.5°	2457.7	2476.3	2510.7	2555.7	2566.3
30°	2367.7	2396.8	2439.2	2484.2	2494.8
32.5°	2280.3	2309.4	2359.7	2407.4	2420.7
35°	2190.2	2216.7	2269.7	2325.3	2341.2
37.5°	2087.0	2121.4	2179.7	2235.3	2251.2
40°	1978.4	2020.7	2087.0	2145.2	2163.8
42.5°	1875.1	1920.1	1986.3	2049.9	2071.1
45°	1766.5	1808.9	1888.3	1959.8	1975.7
47.5°	1655.3	1702.9	1787.7	1859.2	1885.7
50°	1544.0	1594.4	1684.4	1758.6	1774.4
52.5°	1432.8	1485.8	1581.1	1660.6	1668.5
55°	1316.3	1374.5	1475.2	1552.0	1567.9
57.5°	1210.3	1260.7	1369.2	1448.7	1467.2
60°	1093.8	1149.4	1265.9	1340.1	1363.9
62.5°	982.6	1040.8	1162.7	1236.8	1258.0
65°	866.0	932.2	1051.4	1138.8	1160.0
67.5°	765.4	829.0	956.1	1040.8	1062.0
70°	648.9	720.4	855.4	942.8	964.0
72.5°	548.2	622.4	757.4	842.2	874.0
75°	439.6	524.4	659.5	749.5	770.7
77.5°	333.7	431.7	569.4	638.3	638.3
80°	238.4	341.6	468.8	500.6	505.8
82.5°	156.3	256.9	346.9	344.3	344.3
85°	90.0	166.9	206.6	201.3	201.3
87.5°	34.4	68.9	74.2	74.2	71.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)