

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: P389960

Luminaire Tested: **24CZ2-85VHE-S-UNV-L950-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: P389960
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: 24CZ2-85VHE-S-UNV-L950-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8193.3 lumens
Efficiency: N/A
Efficacy: 141.5 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

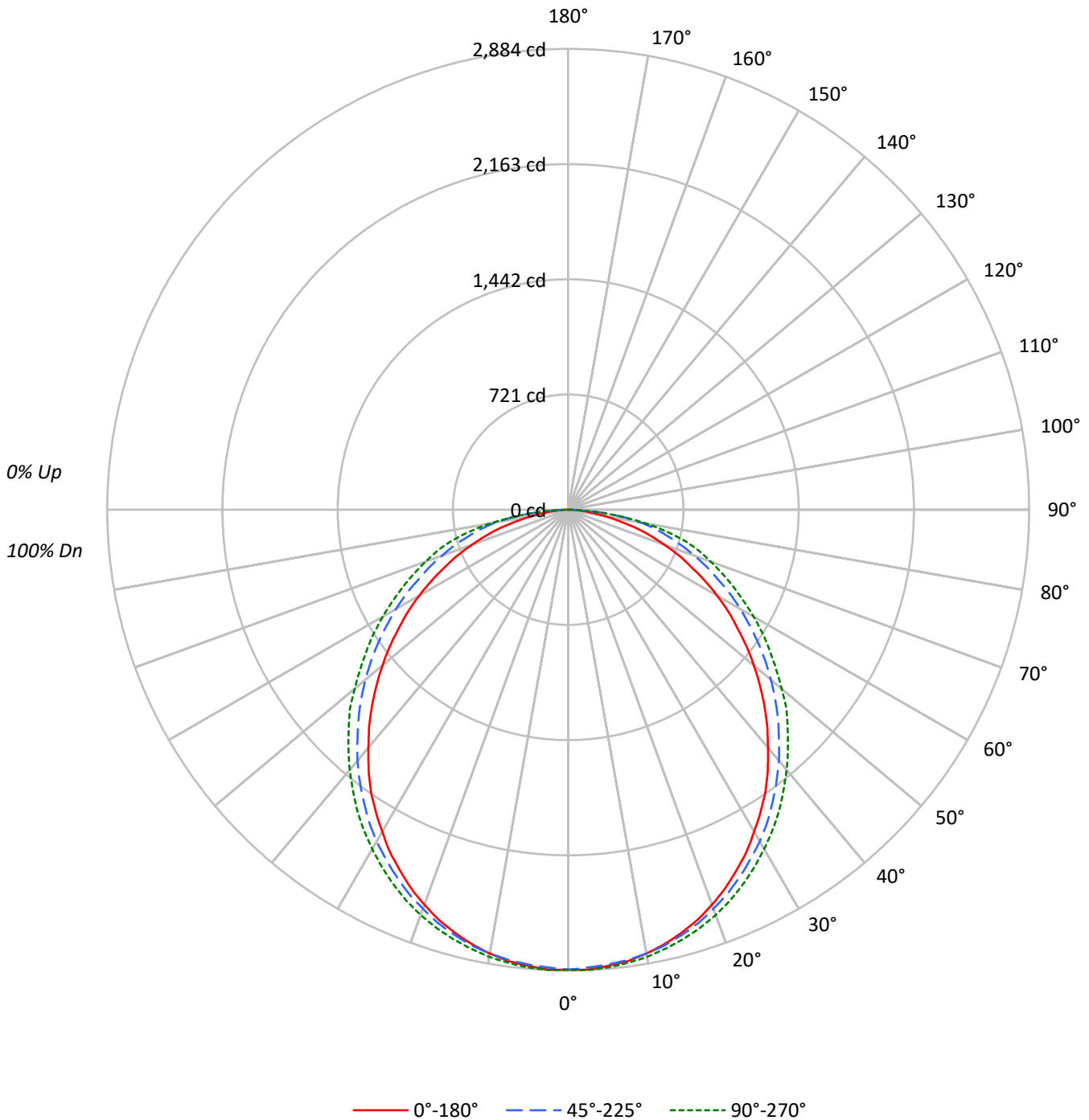
Input Watts (W): 57.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3873	3873	3873
5°	3870	3859	3884
10°	3854	3854	3883
15°	3817	3835	3875
20°	3767	3805	3864
25°	3698	3767	3840
30°	3615	3724	3809
35°	3535	3663	3779
40°	3415	3602	3734
45°	3303	3531	3694
50°	3176	3465	3650
55°	3034	3400	3614
60°	2892	3348	3607
65°	2709	3289	3629
70°	2508	3307	3727
75°	2246	3369	3937
80°	1815	3569	3852
85°	1366	3134	3054



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	272.5	3.3
10°-20°	778.6	9.5
20°-30°	1170.4	14.3
30°-40°	1394.2	17.0
40°-50°	1426.9	17.4
50°-60°	1284.6	15.7
60°-70°	1008.8	12.3
70°-80°	654.7	8.0
80°-90°	202.5	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°	2221.6	27.1
0°-40°	3615.7	44.1
0°-60°	6327.2	77.2
0°-90°	8193.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8193.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2878	2878	2878	2878	2878	
5°	2865	2871	2858	2873	2876	272
15°	2740	2748	2753	2777	2782	773
25°	2491	2511	2537	2579	2587	1147
35°	2152	2178	2230	2285	2301	1343
45°	1736	1778	1856	1926	1942	1338
55°	1293	1351	1450	1525	1541	1160
65°	851	916	1033	1119	1140	847
75°	432	515	648	736	757	457
85°	88	164	203	198	198	107
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2878.4	2878.4	2878.4	2878.4	2878.4
2.5°	2881.0	2881.0	2867.9	2881.0	2883.6
5°	2865.3	2870.6	2857.5	2873.2	2875.8
7.5°	2849.7	2849.7	2841.9	2857.5	2860.1
10°	2821.1	2823.7	2821.1	2839.3	2841.9
12.5°	2784.7	2789.9	2792.5	2810.7	2813.3
15°	2740.4	2748.2	2753.4	2776.9	2782.1
17.5°	2691.0	2698.8	2711.8	2737.8	2743.0
20°	2631.1	2641.5	2657.1	2691.0	2698.8
22.5°	2566.1	2576.5	2602.5	2633.7	2646.7
25°	2490.6	2511.4	2537.4	2579.1	2586.9
27.5°	2415.1	2433.3	2467.2	2511.4	2521.8
30°	2326.6	2355.3	2396.9	2441.1	2451.6
32.5°	2240.7	2269.4	2318.8	2365.7	2378.7
35°	2152.3	2178.3	2230.3	2285.0	2300.6
37.5°	2050.8	2084.6	2141.9	2196.5	2212.1
40°	1944.1	1985.7	2050.8	2108.0	2126.2
42.5°	1842.6	1886.8	1951.9	2014.3	2035.2
45°	1735.9	1777.5	1855.6	1925.8	1941.5
47.5°	1626.6	1673.4	1756.7	1827.0	1853.0
50°	1517.3	1566.7	1655.2	1728.1	1743.7
52.5°	1407.9	1460.0	1553.7	1631.8	1639.6
55°	1293.4	1350.7	1449.6	1525.1	1540.7
57.5°	1189.3	1238.8	1345.5	1423.6	1441.8
60°	1074.8	1129.5	1244.0	1316.9	1340.3
62.5°	965.5	1022.8	1142.5	1215.4	1236.2
65°	851.0	916.1	1033.2	1119.1	1139.9
67.5°	752.1	814.6	939.5	1022.8	1043.6
70°	637.6	707.9	840.6	926.5	947.3
72.5°	538.7	611.6	744.3	827.6	858.8
75°	432.0	515.3	648.0	736.5	757.3
77.5°	327.9	424.2	559.5	627.2	627.2
80°	234.2	335.7	460.6	491.9	497.1
82.5°	153.5	252.4	340.9	338.3	338.3
85°	88.5	164.0	203.0	197.8	197.8
87.5°	33.8	67.7	72.9	72.9	70.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)