

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: P390004

Luminaire Tested: **24CZ2-95VHE-S-UNV-L940-CD1-SWPD1-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: P390004
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-SWPD1-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: 8439.7 lumens
Efficiency: N/A
Efficacy: 128.7 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

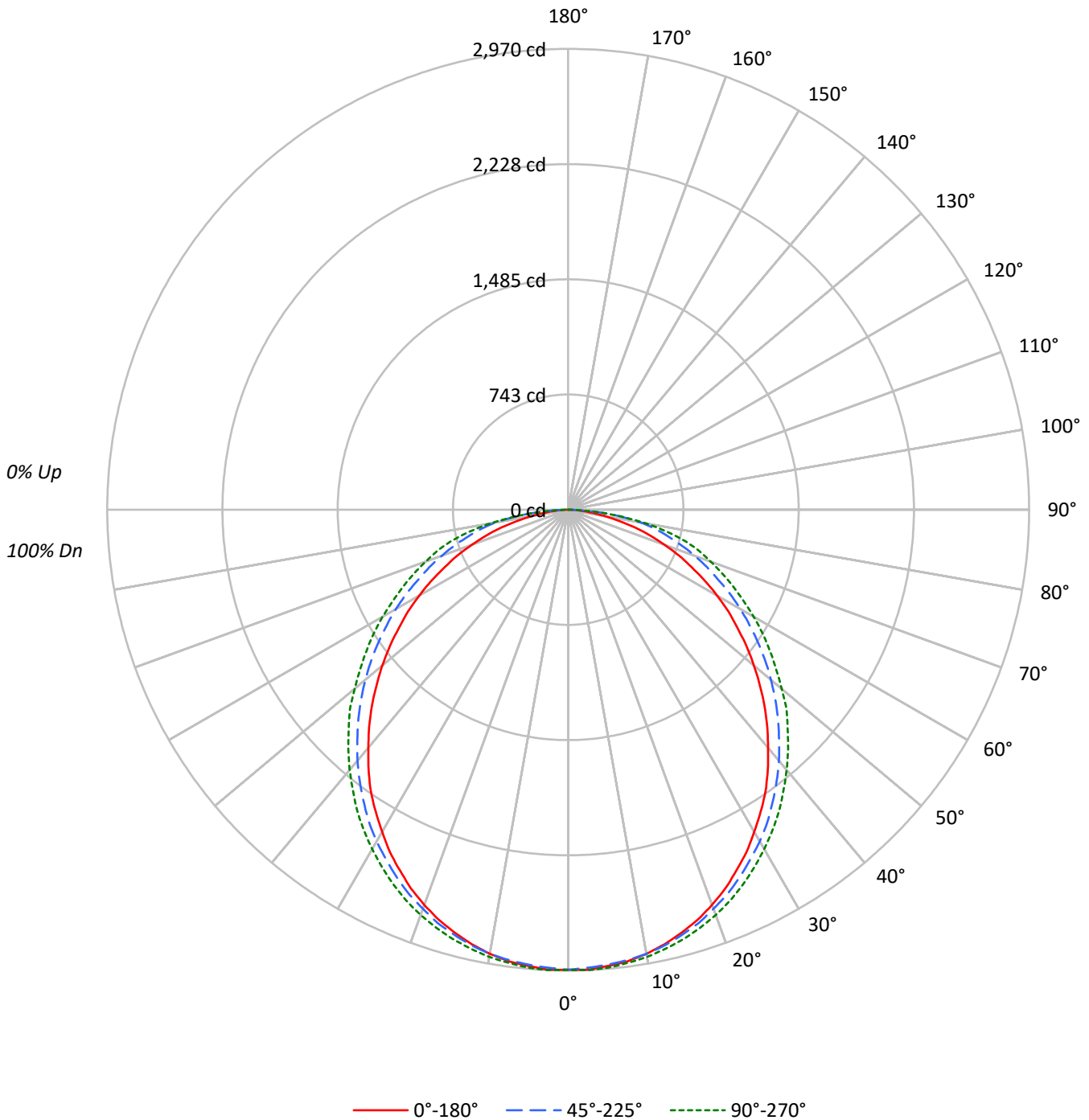
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69					69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3989	3989	3989
5°	3986	3976	4001
10°	3970	3970	4000
15°	3932	3951	3992
20°	3881	3919	3980
25°	3809	3880	3956
30°	3723	3836	3923
35°	3642	3774	3892
40°	3517	3710	3847
45°	3402	3637	3805
50°	3271	3569	3760
55°	3125	3503	3723
60°	2979	3448	3715
65°	2791	3388	3738
70°	2584	3406	3839
75°	2313	3470	4055
80°	1870	3677	3967
85°	1406	3228	3145



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.7	3.3
10°-20°	802.0	9.5
20°-30°	1205.6	14.3
30°-40°	1436.1	17.0
40°-50°	1469.8	17.4
50°-60°	1323.2	15.7
60°-70°	1039.2	12.3
70°-80°	674.5	8.0
80°-90°	208.6	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°	2288.4	27.1
0°-40°	3724.5	44.1
0°-60°	6517.5	77.2
0°-90°	8439.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8439.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2965	2965	2965	2965	2965	
5°	2952	2957	2944	2960	2962	280
15°	2823	2831	2836	2860	2866	796
25°	2566	2587	2614	2657	2665	1182
35°	2217	2244	2297	2354	2370	1383
45°	1788	1831	1911	1984	2000	1379
55°	1332	1391	1493	1571	1587	1194
65°	877	944	1064	1153	1174	873
75°	445	531	668	759	780	471
85°	91	169	209	204	204	110
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2964.9	2964.9	2964.9	2964.9	2964.9
2.5°	2967.6	2967.6	2954.2	2967.6	2970.3
5°	2951.5	2956.9	2943.5	2959.6	2962.2
7.5°	2935.4	2935.4	2927.4	2943.5	2946.2
10°	2905.9	2908.6	2905.9	2924.7	2927.4
12.5°	2868.4	2873.8	2876.5	2895.2	2897.9
15°	2822.8	2830.9	2836.2	2860.4	2865.7
17.5°	2771.9	2779.9	2793.4	2820.2	2825.5
20°	2710.2	2721.0	2737.1	2771.9	2779.9
22.5°	2643.2	2654.0	2680.8	2712.9	2726.3
25°	2565.5	2586.9	2613.7	2656.6	2664.7
27.5°	2487.7	2506.5	2541.4	2586.9	2597.7
30°	2396.6	2426.1	2469.0	2514.6	2525.3
32.5°	2308.1	2337.6	2388.6	2436.8	2450.2
35°	2217.0	2243.8	2297.4	2353.7	2369.8
37.5°	2112.4	2147.3	2206.3	2262.6	2278.6
40°	2002.5	2045.4	2112.4	2171.4	2190.2
42.5°	1898.0	1943.6	2010.6	2074.9	2096.4
45°	1788.1	1831.0	1911.4	1983.8	1999.8
47.5°	1675.5	1723.7	1809.5	1881.9	1908.7
50°	1562.9	1613.8	1705.0	1780.0	1796.1
52.5°	1450.3	1503.9	1600.4	1680.8	1688.9
55°	1332.3	1391.3	1493.2	1570.9	1587.0
57.5°	1225.1	1276.0	1386.0	1466.4	1485.1
60°	1107.2	1163.5	1281.4	1356.5	1380.6
62.5°	994.6	1053.5	1176.9	1251.9	1273.4
65°	876.6	943.6	1064.3	1152.7	1174.2
67.5°	774.7	839.1	967.8	1053.5	1075.0
70°	656.8	729.2	865.9	954.4	975.8
72.5°	554.9	630.0	766.7	852.5	884.7
75°	445.0	530.8	667.5	758.7	780.1
77.5°	337.8	437.0	576.4	646.1	646.1
80°	241.3	345.8	474.5	506.7	512.0
82.5°	158.2	260.0	351.2	348.5	348.5
85°	91.1	168.9	209.1	203.7	203.7
87.5°	34.8	69.7	75.1	75.1	72.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)