

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: P390002

Luminaire Tested: **24CZ2-95VHE-S-UNV-L935-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: P390002
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-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8458.2 lumens
Efficiency: N/A
Efficacy: 128.9 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

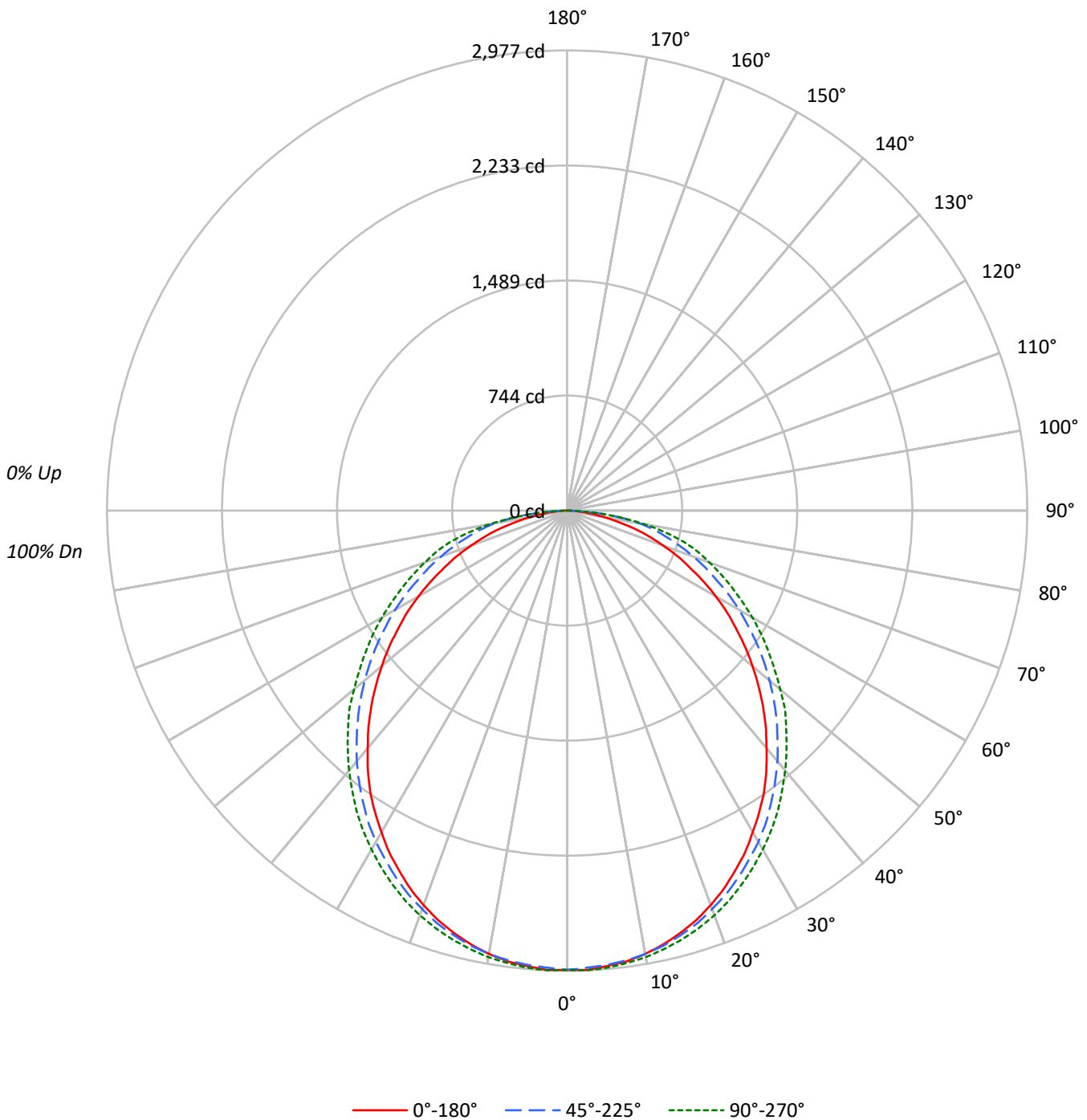
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3998	3998	3998
5°	3995	3984	4010
10°	3979	3979	4008
15°	3941	3959	4001
20°	3889	3928	3989
25°	3817	3889	3965
30°	3732	3844	3932
35°	3649	3782	3901
40°	3525	3718	3855
45°	3410	3645	3814
50°	3279	3577	3768
55°	3132	3510	3731
60°	2986	3456	3723
65°	2797	3396	3746
70°	2589	3414	3847
75°	2319	3478	4064
80°	1874	3684	3976
85°	1409	3236	3152



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	281.3	3.3
10°-20°	803.8	9.5
20°-30°	1208.3	14.3
30°-40°	1439.3	17.0
40°-50°	1473.0	17.4
50°-60°	1326.1	15.7
60°-70°	1041.4	12.3
70°-80°	675.9	8.0
80°-90°	209.0	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°	2293.4	27.1
0°-40°	3732.6	44.1
0°-60°	6531.8	77.2
0°-90°	8458.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8458.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2971	2971	2971	2971	2971	
5°	2958	2963	2950	2966	2969	281
15°	2829	2837	2842	2867	2872	798
25°	2571	2593	2620	2662	2670	1184
35°	2222	2249	2302	2359	2375	1386
45°	1792	1835	1916	1988	2004	1382
55°	1335	1394	1496	1574	1590	1197
65°	878	946	1067	1155	1177	875
75°	446	532	669	760	782	472
85°	91	169	210	204	204	110
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2971.4	2971.4	2971.4	2971.4	2971.4
2.5°	2974.1	2974.1	2960.7	2974.1	2976.8
5°	2958.0	2963.4	2949.9	2966.0	2968.7
7.5°	2941.9	2941.9	2933.8	2949.9	2952.6
10°	2912.3	2915.0	2912.3	2931.1	2933.8
12.5°	2874.7	2880.1	2882.8	2901.6	2904.3
15°	2829.0	2837.1	2842.5	2866.6	2872.0
17.5°	2778.0	2786.0	2799.5	2826.3	2831.7
20°	2716.2	2726.9	2743.1	2778.0	2786.0
22.5°	2649.0	2659.8	2686.6	2718.9	2732.3
25°	2571.1	2592.6	2619.5	2662.5	2670.5
27.5°	2493.2	2512.0	2546.9	2592.6	2603.4
30°	2401.9	2431.4	2474.4	2520.1	2530.8
32.5°	2313.2	2342.7	2393.8	2442.2	2455.6
35°	2221.8	2248.7	2302.4	2358.9	2375.0
37.5°	2117.1	2152.0	2211.1	2267.5	2283.6
40°	2006.9	2049.9	2117.1	2176.2	2195.0
42.5°	1902.1	1947.8	2015.0	2079.5	2101.0
45°	1792.0	1835.0	1915.6	1988.1	2004.2
47.5°	1679.1	1727.5	1813.5	1886.0	1912.9
50°	1566.3	1617.4	1708.7	1783.9	1800.0
52.5°	1453.5	1507.2	1603.9	1684.5	1692.6
55°	1335.3	1394.4	1496.5	1574.4	1590.5
57.5°	1227.8	1278.8	1389.0	1469.6	1488.4
60°	1109.6	1166.0	1284.2	1359.4	1383.6
62.5°	996.7	1055.8	1179.4	1254.7	1276.2
65°	878.5	945.7	1066.6	1155.3	1176.7
67.5°	776.4	840.9	969.9	1055.8	1077.3
70°	658.2	730.8	867.8	956.4	977.9
72.5°	556.1	631.4	768.4	854.4	886.6
75°	446.0	532.0	669.0	760.3	781.8
77.5°	338.5	437.9	577.6	647.5	647.5
80°	241.8	346.6	475.5	507.8	513.1
82.5°	158.5	260.6	351.9	349.3	349.3
85°	91.3	169.3	209.6	204.2	204.2
87.5°	34.9	69.9	75.2	75.2	72.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)