

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: P391033

Luminaire Tested: **24CZ2-130VHE-HRP-UNV-L935-CD2-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: P391033
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-130VHE-HRP-UNV-L935-CD2-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9406.0 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

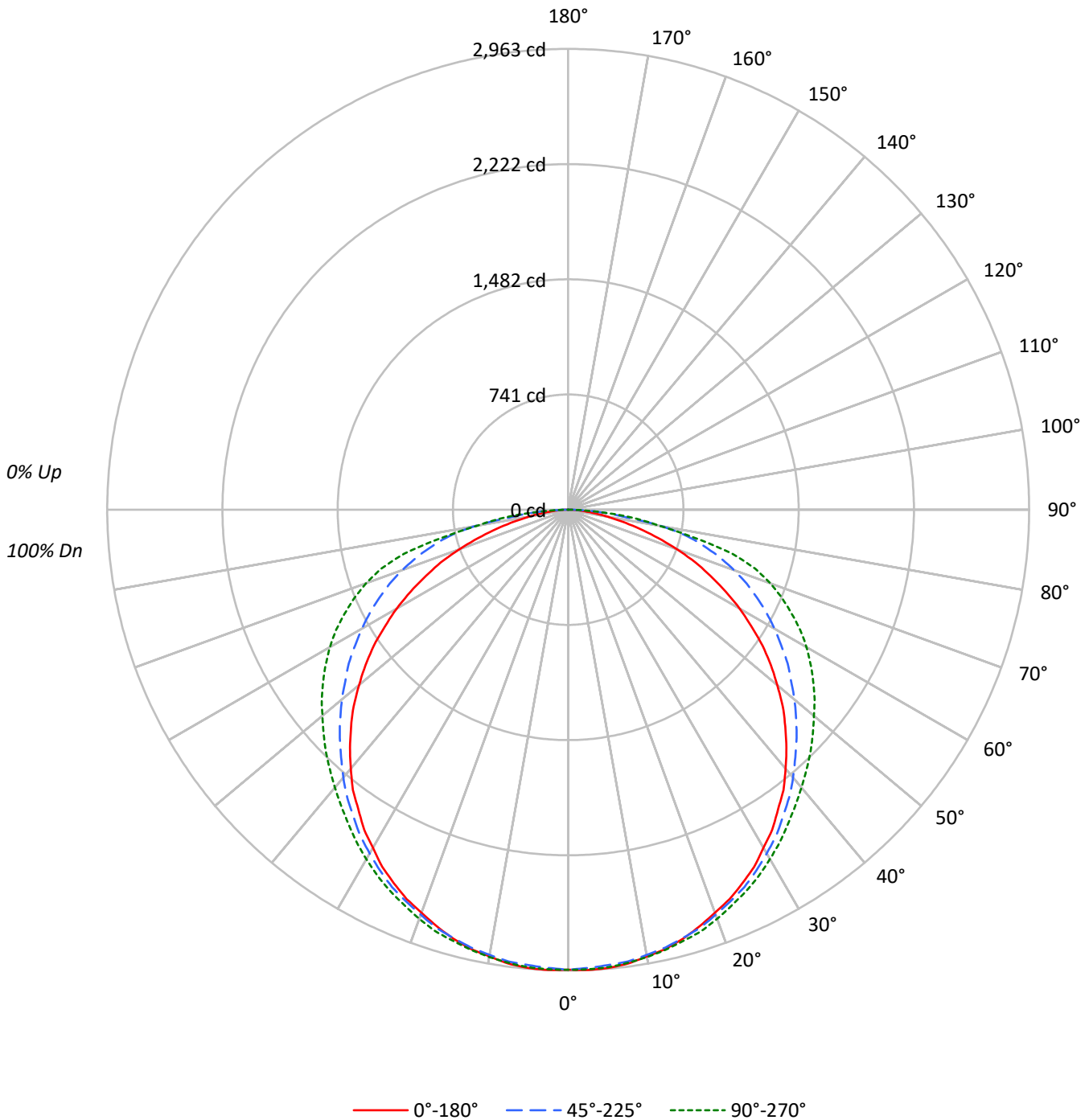
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3980	3980	3980
5°	3995	3970	3989
10°	3984	3971	3990
15°	3977	3971	3997
20°	3948	3968	4008
25°	3934	3976	4017
30°	3900	3965	4030
35°	3862	3954	4046
40°	3819	3950	4097
45°	3755	3950	4190
50°	3672	3975	4316
55°	3579	4039	4509
60°	3427	4118	4758
65°	3208	4263	5050
70°	2918	4460	5433
75°	2474	4705	5675
80°	1952	4736	4591
85°	1440	3602	4034



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.6	3.0
10°-20°	807.5	8.6
20°-30°	1234.9	13.1
30°-40°	1509.6	16.0
40°-50°	1608.9	17.1
50°-60°	1538.4	16.4
60°-70°	1303.2	13.9
70°-80°	875.8	9.3
80°-90°	247.1	2.6
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°	2323.0	24.7
0°-40°	3832.6	40.7
0°-60°	6979.9	74.2
0°-90°	9406.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9406.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2958	2958	2958	2958	2958	
5°	2958	2953	2939	2953	2953	281
15°	2855	2855	2851	2874	2869	805
25°	2650	2659	2678	2701	2706	1221
35°	2351	2370	2407	2454	2463	1473
45°	1974	2006	2076	2165	2202	1522
55°	1526	1582	1722	1857	1922	1359
65°	1008	1110	1339	1516	1586	1000
75°	476	648	905	1059	1092	510
85°	93	191	233	252	261	115
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2957.9	2957.9	2957.9	2957.9	2957.9
2.5°	2962.6	2962.6	2948.6	2957.9	2957.9
5°	2957.9	2953.3	2939.3	2953.3	2953.3
7.5°	2943.9	2939.3	2929.9	2943.9	2939.3
10°	2915.9	2915.9	2906.6	2920.6	2920.6
12.5°	2892.6	2887.9	2883.3	2901.9	2897.3
15°	2855.3	2855.3	2850.6	2873.9	2869.3
17.5°	2808.6	2813.3	2818.0	2836.6	2841.3
20°	2757.3	2766.6	2771.3	2799.3	2799.3
22.5°	2710.6	2715.3	2724.6	2752.6	2752.6
25°	2650.0	2659.3	2678.0	2701.3	2706.0
27.5°	2589.3	2594.0	2617.3	2650.0	2654.7
30°	2510.0	2524.0	2552.0	2589.3	2594.0
32.5°	2440.0	2454.0	2486.7	2524.0	2533.4
35°	2351.4	2370.1	2407.4	2454.0	2463.4
37.5°	2272.1	2286.1	2332.7	2384.1	2398.1
40°	2174.1	2202.1	2248.8	2309.4	2332.7
42.5°	2076.1	2104.1	2160.1	2239.4	2267.4
45°	1973.5	2006.2	2076.1	2164.8	2202.1
47.5°	1870.9	1908.2	1987.5	2090.1	2132.1
50°	1754.2	1800.9	1898.9	2015.5	2062.1
52.5°	1642.3	1698.2	1805.5	1936.2	1996.8
55°	1525.6	1581.6	1721.6	1856.9	1922.2
57.5°	1395.0	1469.6	1623.6	1777.6	1847.5
60°	1273.7	1343.7	1530.3	1698.2	1768.2
62.5°	1143.0	1236.4	1437.0	1614.3	1684.2
65°	1007.7	1110.4	1339.0	1516.3	1586.3
67.5°	886.4	998.4	1241.0	1418.3	1488.3
70°	741.8	881.8	1133.7	1311.0	1381.0
72.5°	606.5	760.5	1021.7	1194.4	1259.7
75°	475.9	648.5	905.1	1059.1	1091.7
77.5°	354.6	536.5	783.8	849.1	825.8
80°	251.9	429.2	611.2	578.5	592.5
82.5°	163.3	326.6	377.9	429.2	443.2
85°	93.3	191.3	233.3	251.9	261.3
87.5°	42.0	70.0	93.3	93.3	88.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)