

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: P391034

Luminaire Tested: **24CZ2-130VHE-HRP-UNV-L935-CD2-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: P391034
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-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: 9524.2 lumens
Efficiency: N/A
Efficacy: 105.0 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

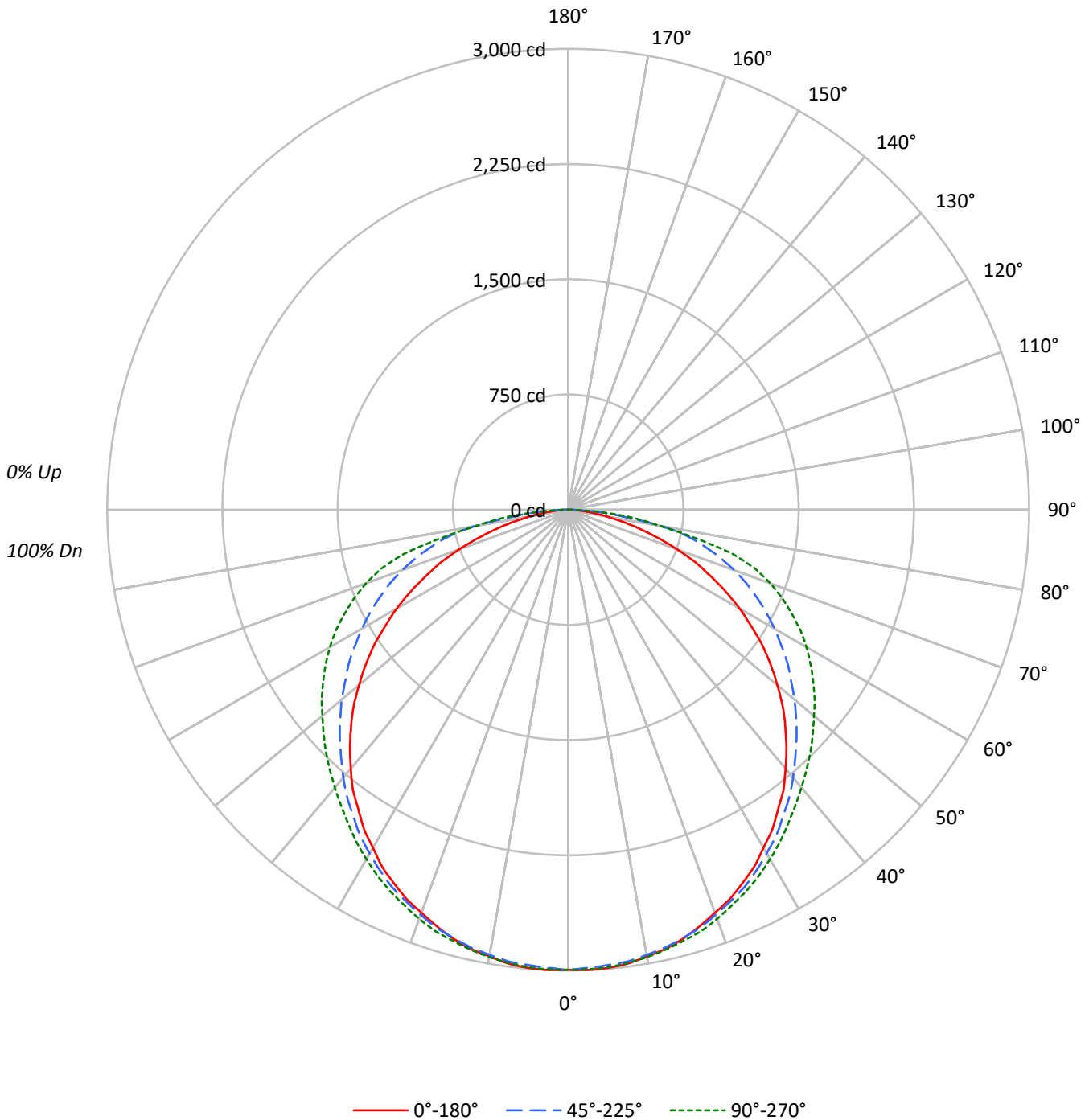
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4030	4030	4030
5°	4045	4020	4039
10°	4034	4021	4040
15°	4027	4021	4047
20°	3998	4018	4059
25°	3984	4026	4068
30°	3949	4015	4081
35°	3911	4004	4097
40°	3867	3999	4149
45°	3802	4000	4243
50°	3718	4025	4371
55°	3624	4089	4566
60°	3471	4170	4818
65°	3249	4316	5114
70°	2955	4516	5501
75°	2505	4764	5747
80°	1977	4795	4649
85°	1459	3646	4085



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	284.1	3.0
10°-20°	817.7	8.6
20°-30°	1250.4	13.1
30°-40°	1528.6	16.0
40°-50°	1629.2	17.1
50°-60°	1557.7	16.4
60°-70°	1319.6	13.9
70°-80°	886.9	9.3
80°-90°	250.2	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°	2352.2	24.7
0°-40°	3880.8	40.7
0°-60°	7067.6	74.2
0°-90°	9524.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9524.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2995	2995	2995	2995	2995	
5°	2995	2990	2976	2990	2990	285
15°	2891	2891	2886	2910	2905	815
25°	2683	2693	2712	2735	2740	1237
35°	2381	2400	2438	2485	2494	1492
45°	1998	2031	2102	2192	2230	1541
55°	1545	1602	1743	1880	1946	1376
65°	1020	1124	1356	1535	1606	1013
75°	482	657	916	1072	1105	516
85°	94	194	236	255	265	117
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2995.1	2995.1	2995.1	2995.1	2995.1
2.5°	2999.8	2999.8	2985.6	2995.1	2995.1
5°	2995.1	2990.4	2976.2	2990.4	2990.4
7.5°	2980.9	2976.2	2966.7	2980.9	2976.2
10°	2952.6	2952.6	2943.1	2957.3	2957.3
12.5°	2929.0	2924.2	2919.5	2938.4	2933.7
15°	2891.2	2891.2	2886.4	2910.1	2905.3
17.5°	2843.9	2848.6	2853.4	2872.3	2877.0
20°	2792.0	2801.4	2806.1	2834.5	2834.5
22.5°	2744.7	2749.4	2758.9	2787.2	2787.2
25°	2683.3	2692.7	2711.6	2735.3	2740.0
27.5°	2621.9	2626.6	2650.2	2683.3	2688.0
30°	2541.6	2555.7	2584.1	2621.9	2626.6
32.5°	2470.7	2484.9	2518.0	2555.7	2565.2
35°	2381.0	2399.9	2437.6	2484.9	2494.3
37.5°	2300.6	2314.8	2362.1	2414.0	2428.2
40°	2201.4	2229.8	2277.0	2338.4	2362.1
42.5°	2102.2	2130.6	2187.3	2267.6	2295.9
45°	1998.3	2031.4	2102.2	2192.0	2229.8
47.5°	1894.4	1932.2	2012.5	2116.4	2158.9
50°	1776.3	1823.5	1922.7	2040.8	2088.1
52.5°	1662.9	1719.6	1828.2	1960.5	2021.9
55°	1544.8	1601.5	1743.2	1880.2	1946.3
57.5°	1412.5	1488.1	1644.0	1799.9	1870.7
60°	1289.7	1360.5	1549.5	1719.6	1790.4
62.5°	1157.4	1251.9	1455.0	1634.5	1705.4
65°	1020.4	1124.3	1355.8	1535.3	1606.2
67.5°	897.6	1011.0	1256.6	1436.1	1507.0
70°	751.1	892.9	1148.0	1327.5	1398.3
72.5°	614.1	770.0	1034.6	1209.4	1275.5
75°	481.9	656.7	916.5	1072.4	1105.4
77.5°	359.0	543.3	793.7	859.8	836.2
80°	255.1	434.6	618.9	585.8	600.0
82.5°	165.3	330.7	382.7	434.6	448.8
85°	94.5	193.7	236.2	255.1	264.6
87.5°	42.5	70.9	94.5	94.5	89.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)