

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: P388371

Luminaire Tested: **24CZ2-130VHE-SQR-UNV-L935-CD2-SDWPD1-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: P388371
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-130VHE-SQR-UNV-L935-CD2-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10513.8 lumens
Efficiency: N/A
Efficacy: 115.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

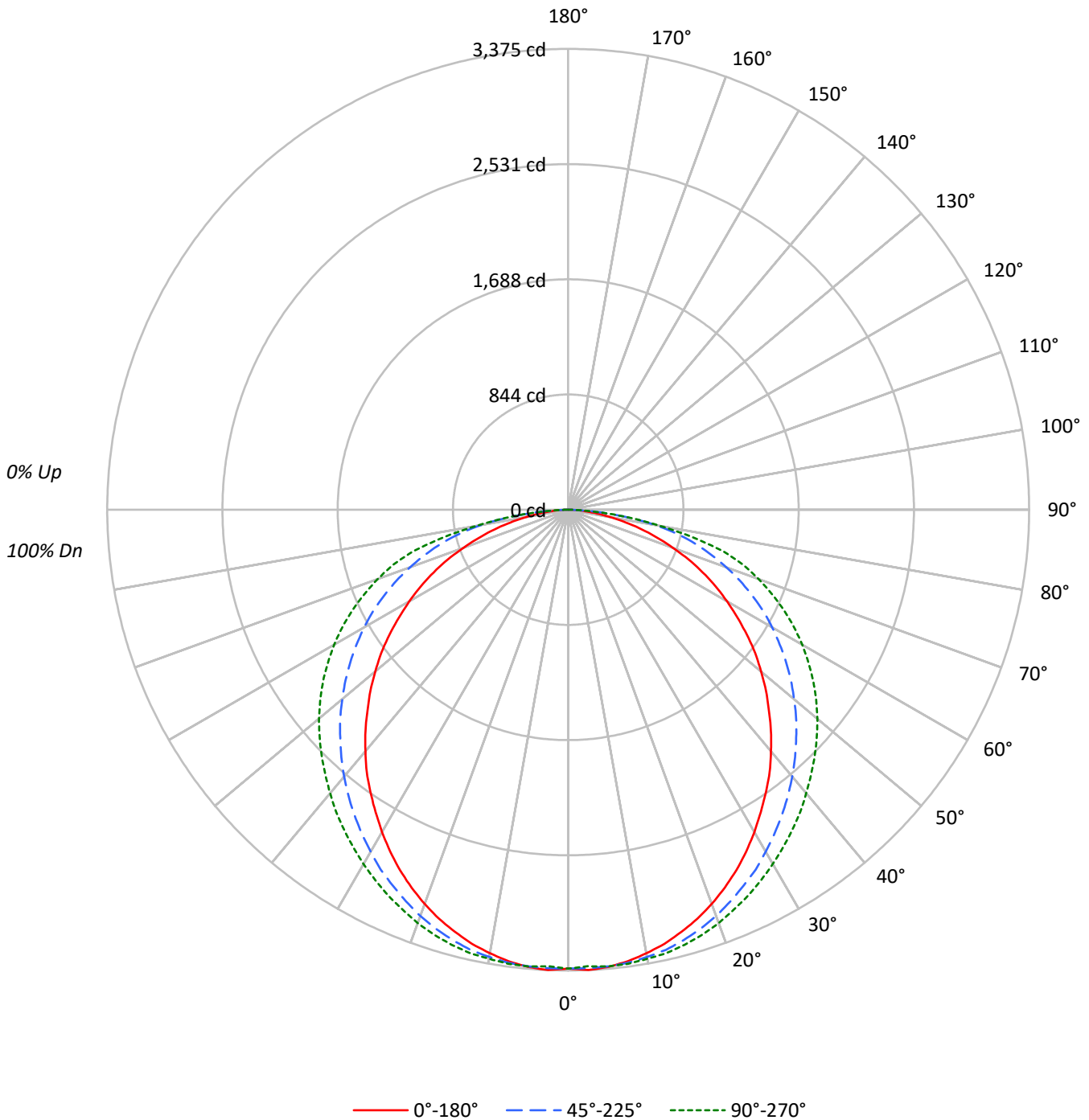
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	89	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4522	4522	4522
5°	4539	4534	4534
10°	4506	4544	4563
15°	4459	4546	4594
20°	4399	4534	4613
25°	4324	4510	4628
30°	4234	4493	4655
35°	4146	4482	4699
40°	4055	4482	4763
45°	3950	4492	4856
50°	3859	4520	4985
55°	3746	4569	5139
60°	3616	4643	5325
65°	3460	4731	5549
70°	3210	4849	5832
75°	2906	5018	6101
80°	2448	5030	5246
85°	1876	3805	3805



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	319.0	3.0
10°-20°	917.8	8.7
20°-30°	1394.1	13.3
30°-40°	1695.8	16.1
40°-50°	1805.4	17.2
50°-60°	1719.6	16.4
60°-70°	1438.1	13.7
70°-80°	958.8	9.1
80°-90°	265.3	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°	2630.9	25.0
0°-40°	4326.7	41.2
0°-60°	7851.7	74.7
0°-90°	10513.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10513.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3361	3361	3361	3361	3361	
5°	3361	3340	3357	3357	3357	319
15°	3201	3208	3264	3288	3298	903
25°	2913	2951	3038	3090	3118	1341
35°	2524	2597	2729	2819	2861	1579
45°	2076	2187	2361	2493	2552	1605
55°	1597	1736	1948	2118	2191	1428
65°	1087	1246	1486	1670	1743	1074
75°	559	736	965	1128	1174	592
85°	122	226	246	243	246	147
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3360.7	3360.7	3360.7	3360.7	3360.7
2.5°	3374.6	3350.3	3360.7	3360.7	3346.8
5°	3360.7	3339.9	3357.3	3357.3	3357.3
7.5°	3336.4	3319.1	3346.8	3353.8	3353.8
10°	3298.2	3291.3	3326.0	3336.4	3339.9
12.5°	3256.6	3253.1	3301.7	3315.6	3326.0
15°	3201.0	3208.0	3263.5	3287.8	3298.2
17.5°	3142.0	3155.9	3218.4	3253.1	3263.5
20°	3072.6	3093.4	3166.3	3201.0	3221.8
22.5°	2996.2	3027.4	3103.8	3145.5	3169.8
25°	2912.9	2951.0	3037.8	3089.9	3117.7
27.5°	2822.6	2871.2	2971.9	3030.9	3058.7
30°	2725.4	2780.9	2892.0	2961.5	2996.2
32.5°	2624.7	2690.7	2812.2	2888.6	2930.2
35°	2524.0	2596.9	2728.9	2819.1	2860.8
37.5°	2423.3	2496.2	2642.1	2739.3	2791.3
40°	2308.8	2395.6	2551.8	2659.4	2711.5
42.5°	2197.7	2291.4	2458.0	2576.1	2631.6
45°	2076.1	2187.2	2360.8	2492.8	2551.8
47.5°	1965.1	2076.1	2263.6	2402.5	2468.5
50°	1843.5	1961.6	2159.5	2312.2	2381.7
52.5°	1725.5	1847.0	2055.3	2218.5	2287.9
55°	1597.0	1735.9	1947.7	2117.8	2190.7
57.5°	1468.6	1617.9	1836.6	2013.7	2086.6
60°	1343.6	1496.4	1725.5	1902.6	1978.9
62.5°	1218.6	1371.4	1610.9	1791.5	1864.4
65°	1086.7	1246.4	1485.9	1669.9	1742.9
67.5°	954.8	1121.4	1361.0	1545.0	1614.4
70°	815.9	992.9	1232.5	1413.0	1482.5
72.5°	687.4	864.5	1100.6	1277.6	1343.6
75°	559.0	736.0	965.2	1128.3	1173.5
77.5°	434.0	611.0	815.9	923.5	933.9
80°	315.9	482.6	649.2	680.5	677.0
82.5°	211.8	361.1	447.9	451.3	461.8
85°	121.5	225.7	246.5	243.0	246.5
87.5°	48.6	79.9	69.4	52.1	52.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)