

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: P388372

Luminaire Tested: **24CZ2-130VHE-SQR-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: P388372
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-SWPD1-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: 10642.1 lumens
Efficiency: N/A
Efficacy: 117.3 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

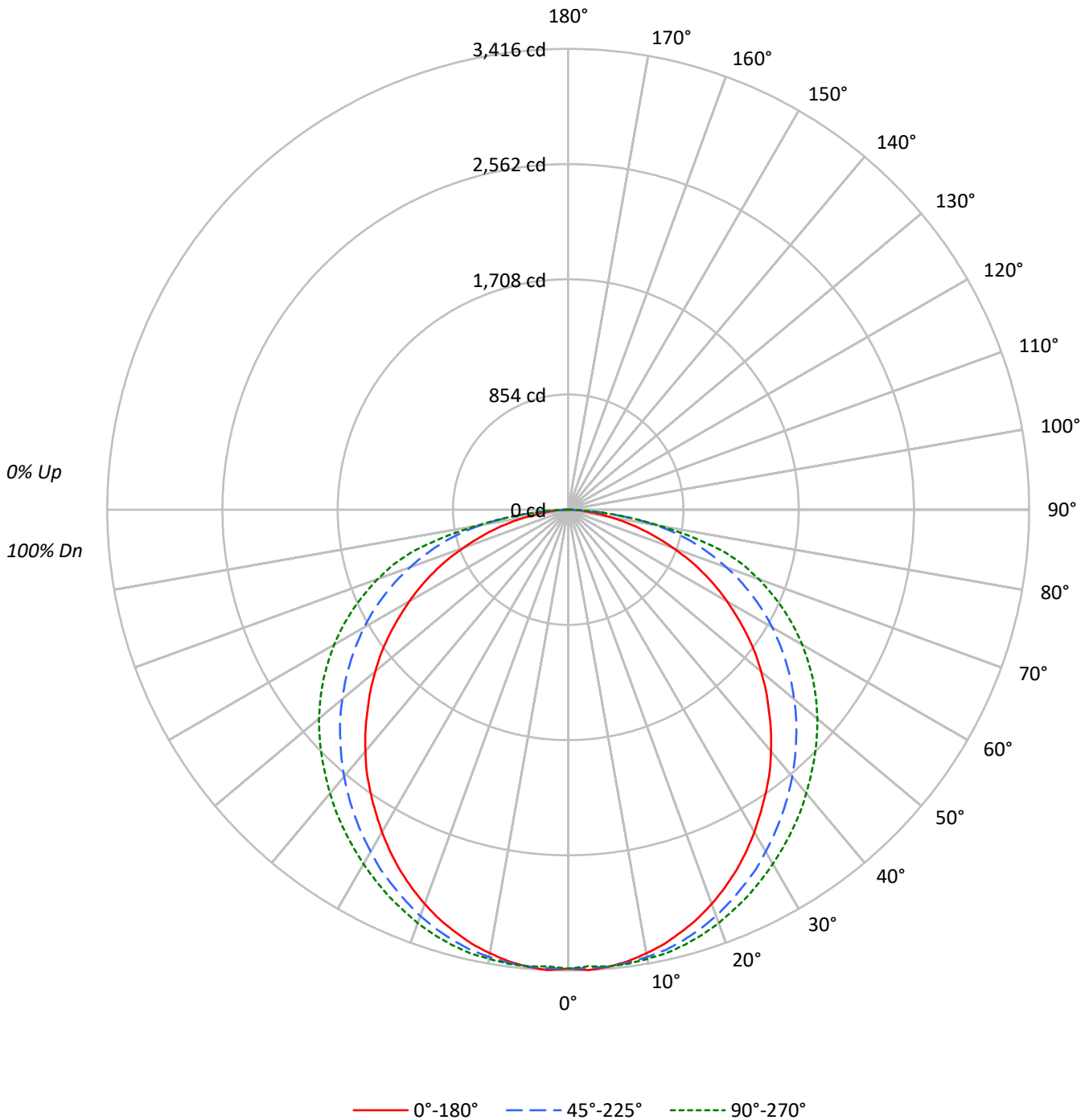
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4577	4577	4577
5°	4594	4590	4590
10°	4561	4600	4619
15°	4513	4601	4650
20°	4453	4589	4670
25°	4377	4565	4685
30°	4286	4548	4712
35°	4196	4537	4756
40°	4105	4537	4821
45°	3999	4547	4915
50°	3906	4575	5046
55°	3792	4625	5202
60°	3660	4700	5390
65°	3502	4789	5616
70°	3249	4908	5903
75°	2941	5078	6175
80°	2478	5092	5310
85°	1899	3852	3852



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	322.9	3.0
10°-20°	929.0	8.7
20°-30°	1411.1	13.3
30°-40°	1716.4	16.1
40°-50°	1827.4	17.2
50°-60°	1740.6	16.4
60°-70°	1455.6	13.7
70°-80°	970.5	9.1
80°-90°	268.5	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°	2663.0	25.0
0°-40°	4379.5	41.2
0°-60°	7947.5	74.7
0°-90°	10642.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10642.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3402	3402	3402	3402	3402	
5°	3402	3381	3398	3398	3398	323
15°	3240	3247	3303	3328	3338	914
25°	2948	2987	3075	3128	3156	1358
35°	2555	2629	2762	2854	2896	1599
45°	2102	2214	2390	2523	2583	1625
55°	1616	1757	1972	2144	2218	1445
65°	1100	1262	1504	1690	1764	1087
75°	566	745	977	1142	1188	599
85°	123	228	250	246	250	149
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3401.7	3401.7	3401.7	3401.7	3401.7
2.5°	3415.8	3391.2	3401.7	3401.7	3387.7
5°	3401.7	3380.6	3398.2	3398.2	3398.2
7.5°	3377.1	3359.6	3387.7	3394.7	3394.7
10°	3338.5	3331.4	3366.6	3377.1	3380.6
12.5°	3296.3	3292.8	3342.0	3356.0	3366.6
15°	3240.1	3247.1	3303.3	3327.9	3338.5
17.5°	3180.3	3194.4	3257.7	3292.8	3303.3
20°	3110.1	3131.1	3204.9	3240.1	3261.2
22.5°	3032.7	3064.4	3141.7	3183.9	3208.5
25°	2948.4	2987.1	3074.9	3127.6	3155.7
27.5°	2857.0	2906.2	3008.1	3067.9	3096.0
30°	2758.6	2814.9	2927.3	2997.6	3032.7
32.5°	2656.7	2723.5	2846.5	2923.8	2966.0
35°	2554.8	2628.6	2762.2	2853.5	2895.7
37.5°	2452.9	2526.7	2674.3	2772.7	2825.4
40°	2336.9	2424.8	2582.9	2691.9	2744.6
42.5°	2224.5	2319.4	2488.0	2607.5	2663.8
45°	2101.5	2213.9	2389.6	2523.2	2582.9
47.5°	1989.0	2101.5	2291.2	2431.8	2498.6
50°	1866.0	1985.5	2185.8	2340.4	2410.7
52.5°	1746.6	1869.5	2080.4	2245.6	2315.8
55°	1616.5	1757.1	1971.5	2143.7	2217.5
57.5°	1486.5	1637.6	1859.0	2038.2	2112.0
60°	1360.0	1514.6	1746.6	1925.8	2003.1
62.5°	1233.5	1388.1	1630.6	1813.3	1887.1
65°	1099.9	1261.6	1504.1	1690.3	1764.1
67.5°	966.4	1135.1	1377.6	1563.8	1634.1
70°	825.8	1005.1	1247.5	1430.3	1500.6
72.5°	695.8	875.0	1114.0	1293.2	1360.0
75°	565.8	745.0	976.9	1142.1	1187.8
77.5°	439.3	618.5	825.8	934.8	945.3
80°	319.8	488.5	657.2	688.8	685.3
82.5°	214.4	365.5	453.3	456.8	467.4
85°	123.0	228.4	249.5	246.0	249.5
87.5°	49.2	80.8	70.3	52.7	52.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)