

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: P388368

Luminaire Tested: **24CZ2-130VHE-SQR-UNV-L930-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: P388368
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-L930-CD2-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10260.0 lumens
Efficiency: N/A
Efficacy: 113.1 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

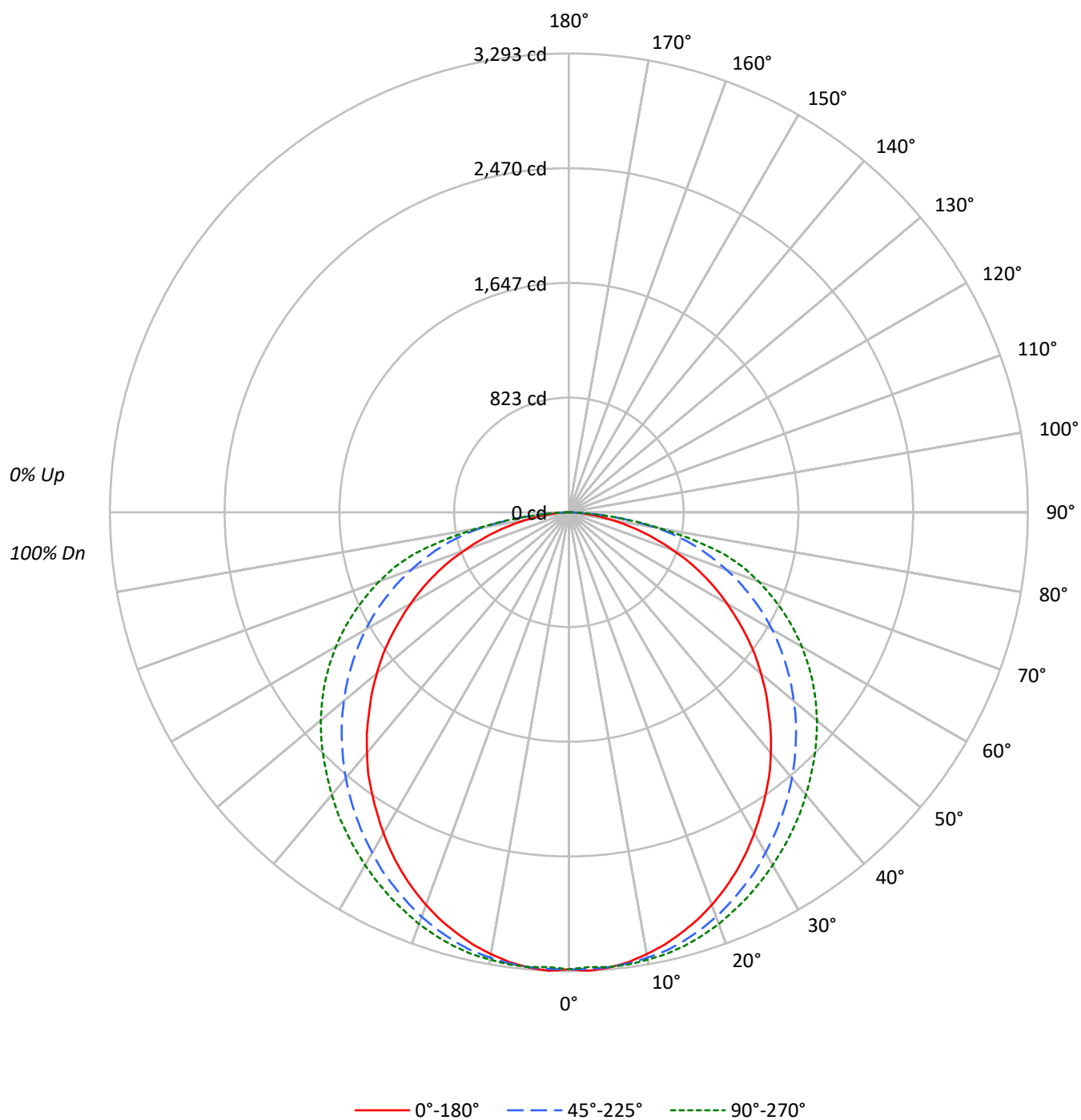
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	108	103	98	94	105	100	96	92		96	93	89		92	89	87		89	86	84
2	98	89	81	75	95	87	80	74		83	78	73		80	75	71		77	73	69
3	89	77	69	62	86	76	68	61		73	66	60		70	64	59		67	62	58
4	81	68	59	52	78	67	58	52		64	57	51		62	55	50		60	54	49
5	74	61	51	44	72	60	51	44		57	50	44		55	49	43		54	48	43
6	68	55	45	39	66	54	45	38		52	44	38		50	43	38		48	42	37
7	63	49	40	34	62	49	40	34		47	39	34		45	39	33		44	38	33
8	59	45	36	30	57	44	36	30		43	35	30		42	35	30		40	34	30
9	55	41	33	27	54	41	33	27		39	32	27		38	32	27		37	31	27
10	52	38	30	25	50	37	30	24		36	29	24		36	29	24		35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4413	4413	4413
5°	4430	4425	4425
10°	4397	4434	4453
15°	4351	4436	4483
20°	4293	4424	4502
25°	4220	4401	4517
30°	4132	4385	4543
35°	4046	4374	4585
40°	3957	4374	4647
45°	3855	4384	4738
50°	3766	4411	4865
55°	3656	4459	5015
60°	3528	4531	5197
65°	3376	4617	5415
70°	3132	4731	5691
75°	2836	4897	5953
80°	2389	4909	5119
85°	1831	3713	3713



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	311.3	3.0
10°-20°	895.7	8.7
20°-30°	1360.5	13.3
30°-40°	1654.8	16.1
40°-50°	1761.8	17.2
50°-60°	1678.1	16.4
60°-70°	1403.3	13.7
70°-80°	935.6	9.1
80°-90°	258.9	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°	2567.4	25.0
0°-40°	4222.2	41.2
0°-60°	7662.1	74.7
0°-90°	10260.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10260.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3280	3280	3280	3280	3280	
5°	3280	3259	3276	3276	3276	311
15°	3124	3130	3185	3208	3219	881
25°	2842	2880	2964	3015	3042	1309
35°	2463	2534	2663	2751	2792	1541
45°	2026	2134	2304	2433	2490	1566
55°	1558	1694	1901	2067	2138	1393
65°	1060	1216	1450	1630	1701	1048
75°	546	718	942	1101	1145	578
85°	119	220	240	237	240	143
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3279.6	3279.6	3279.6	3279.6	3279.6
2.5°	3293.1	3269.4	3279.6	3279.6	3266.0
5°	3279.6	3259.3	3276.2	3276.2	3276.2
7.5°	3255.9	3238.9	3266.0	3272.8	3272.8
10°	3218.6	3211.8	3245.7	3255.9	3259.3
12.5°	3178.0	3174.6	3222.0	3235.6	3245.7
15°	3123.7	3130.5	3184.7	3208.4	3218.6
17.5°	3066.2	3079.7	3140.7	3174.6	3184.7
20°	2998.4	3018.7	3089.9	3123.7	3144.1
22.5°	2923.9	2954.3	3028.9	3069.5	3093.3
25°	2842.5	2879.8	2964.5	3015.3	3042.4
27.5°	2754.5	2801.9	2900.1	2957.7	2984.8
30°	2659.6	2713.8	2822.2	2890.0	2923.9
32.5°	2561.3	2625.7	2744.3	2818.8	2859.5
35°	2463.1	2534.2	2663.0	2751.1	2791.7
37.5°	2364.8	2436.0	2578.3	2673.1	2724.0
40°	2253.0	2337.7	2490.2	2595.2	2646.0
42.5°	2144.6	2236.1	2398.7	2513.9	2568.1
45°	2026.0	2134.4	2303.8	2432.6	2490.2
47.5°	1917.6	2026.0	2209.0	2344.5	2408.9
50°	1799.0	1914.2	2107.3	2256.4	2324.2
52.5°	1683.8	1802.4	2005.7	2164.9	2232.7
55°	1558.5	1694.0	1900.7	2066.7	2137.8
57.5°	1433.1	1578.8	1792.3	1965.0	2036.2
60°	1311.2	1460.2	1683.8	1856.6	1931.2
62.5°	1189.2	1338.3	1572.0	1748.2	1819.4
65°	1060.4	1216.3	1450.1	1629.6	1700.8
67.5°	931.7	1094.3	1328.1	1507.7	1575.4
70°	796.2	969.0	1202.7	1378.9	1446.7
72.5°	670.8	843.6	1074.0	1246.8	1311.2
75°	545.5	718.3	941.9	1101.1	1145.1
77.5°	423.5	596.3	796.2	901.2	911.4
80°	308.3	470.9	633.6	664.1	660.7
82.5°	206.7	352.4	437.1	440.4	450.6
85°	118.6	220.2	240.5	237.2	240.5
87.5°	47.4	77.9	67.8	50.8	50.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)