

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: P389590

Luminaire Tested: **24CZ2-130VHE-S-UNV-L930-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: P389590
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-130VHE-S-UNV-L930-CD2-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11362.3 lumens
Efficiency: N/A
Efficacy: 125.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

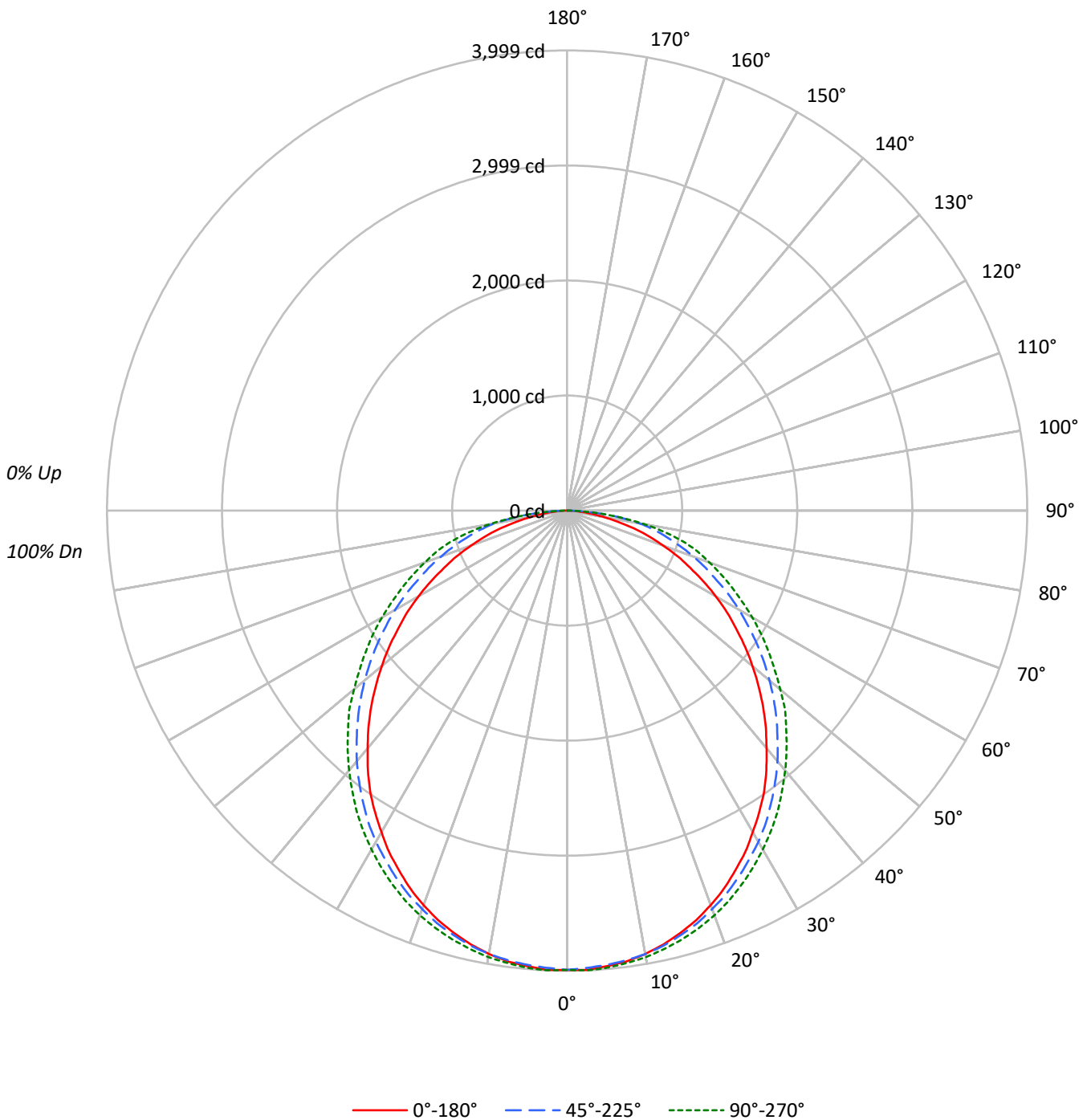
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5371	5371	5371
5°	5367	5352	5386
10°	5345	5345	5385
15°	5294	5319	5374
20°	5224	5276	5359
25°	5128	5224	5326
30°	5013	5164	5282
35°	4902	5080	5240
40°	4735	4995	5179
45°	4581	4896	5123
50°	4404	4805	5062
55°	4208	4716	5012
60°	4011	4642	5002
65°	3757	4562	5033
70°	3478	4586	5168
75°	3114	4672	5460
80°	2517	4950	5341
85°	1894	4346	4235



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	377.9	3.3
10°-20°	1079.8	9.5
20°-30°	1623.1	14.3
30°-40°	1933.4	17.0
40°-50°	1978.8	17.4
50°-60°	1781.5	15.7
60°-70°	1399.0	12.3
70°-80°	908.0	8.0
80°-90°	280.8	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°	3080.8	27.1
0°-40°	5014.2	44.1
0°-60°	8774.5	77.2
0°-90°	11362.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11362.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3992	3992	3992	3992	3992	
5°	3974	3981	3963	3984	3988	378
15°	3800	3811	3818	3851	3858	1072
25°	3454	3483	3519	3577	3587	1591
35°	2985	3021	3093	3169	3190	1862
45°	2407	2465	2573	2671	2692	1856
55°	1794	1873	2010	2115	2137	1608
65°	1180	1270	1433	1552	1581	1175
75°	599	715	899	1021	1050	634
85°	123	227	282	274	274	148
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3991.7	3991.7	3991.7	3991.7	3991.7
2.5°	3995.3	3995.3	3977.2	3995.3	3998.9
5°	3973.6	3980.8	3962.8	3984.4	3988.0
7.5°	3952.0	3952.0	3941.1	3962.8	3966.4
10°	3912.3	3915.9	3912.3	3937.5	3941.1
12.5°	3861.7	3868.9	3872.6	3897.8	3901.4
15°	3800.4	3811.2	3818.4	3850.9	3858.1
17.5°	3731.8	3742.6	3760.7	3796.8	3804.0
20°	3648.8	3663.2	3684.9	3731.8	3742.6
22.5°	3558.6	3573.0	3609.1	3652.4	3670.4
25°	3453.9	3482.8	3518.9	3576.6	3587.4
27.5°	3349.2	3374.5	3421.4	3482.8	3497.2
30°	3226.5	3266.2	3324.0	3385.3	3399.8
32.5°	3107.4	3147.1	3215.7	3280.7	3298.7
35°	2984.7	3020.8	3093.0	3168.8	3190.4
37.5°	2844.0	2890.9	2970.3	3046.1	3067.7
40°	2696.0	2753.7	2844.0	2923.4	2948.6
42.5°	2555.2	2616.6	2706.8	2793.4	2822.3
45°	2407.3	2465.0	2573.3	2670.7	2692.4
47.5°	2255.7	2320.6	2436.1	2533.6	2569.7
50°	2104.1	2172.7	2295.4	2396.4	2418.1
52.5°	1952.5	2024.7	2154.6	2262.9	2273.7
55°	1793.7	1873.1	2010.3	2114.9	2136.6
57.5°	1649.4	1717.9	1865.9	1974.2	1999.4
60°	1490.6	1566.3	1725.1	1826.2	1858.7
62.5°	1339.0	1418.4	1584.4	1685.4	1714.3
65°	1180.2	1270.4	1432.8	1551.9	1580.8
67.5°	1043.0	1129.6	1302.9	1418.4	1447.2
70°	884.2	981.7	1165.7	1284.8	1313.7
72.5°	747.1	848.1	1032.2	1147.7	1191.0
75°	599.1	714.6	898.7	1021.4	1050.2
77.5°	454.7	588.3	776.0	869.8	869.8
80°	324.8	465.6	638.8	682.1	689.3
82.5°	212.9	350.1	472.8	469.2	469.2
85°	122.7	227.4	281.5	274.3	274.3
87.5°	46.9	93.8	101.1	101.1	97.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)