

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: P389595

Luminaire Tested: **24CZ2-130VHE-S-UNV-L940-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: P389595
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-L940-CD2-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11621.9 lumens
Efficiency: N/A
Efficacy: 128.1 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

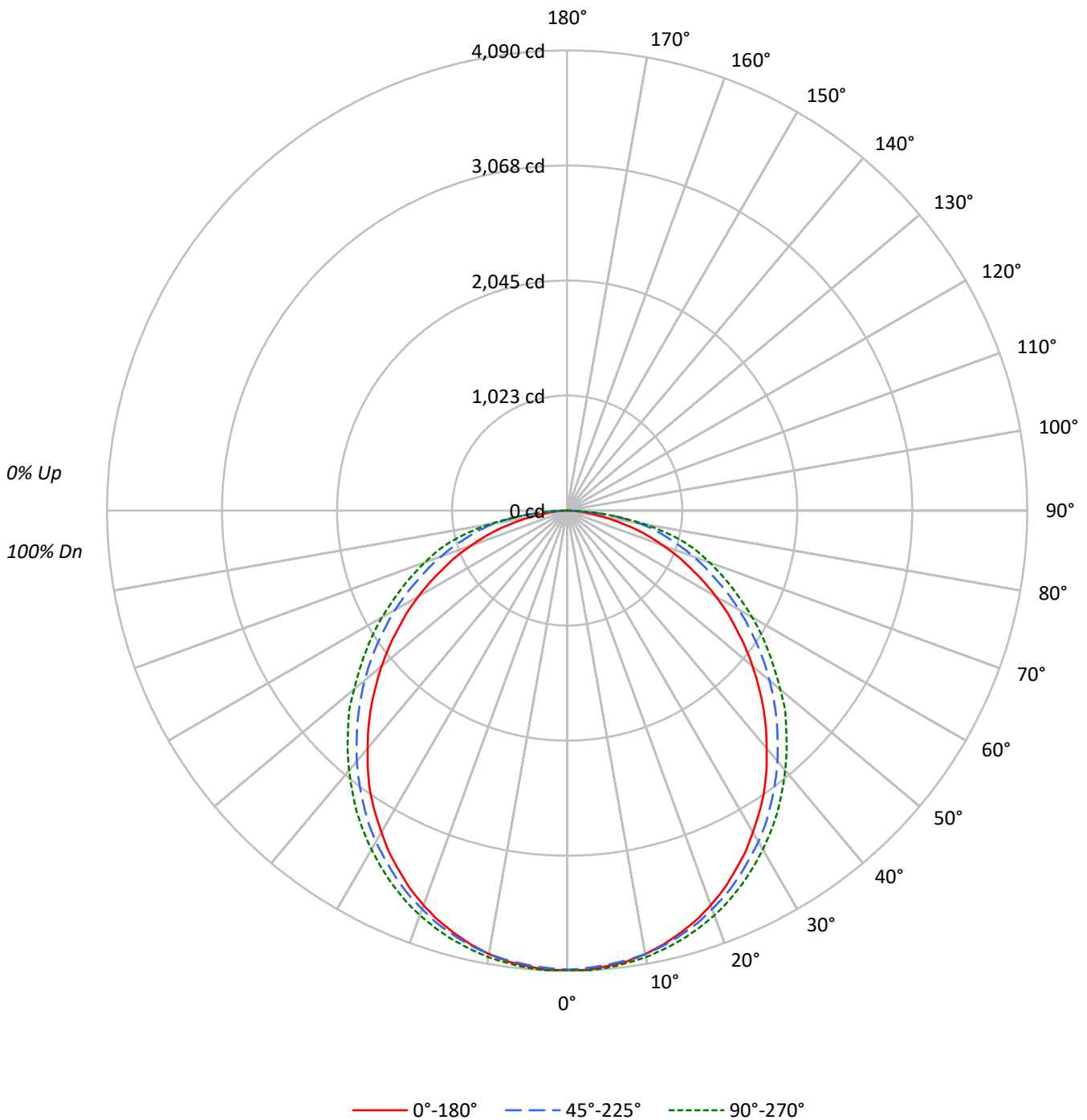
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5493	5493	5493
5°	5489	5475	5509
10°	5467	5467	5508
15°	5415	5440	5497
20°	5344	5397	5481
25°	5245	5343	5448
30°	5127	5282	5403
35°	5015	5197	5360
40°	4843	5109	5297
45°	4685	5008	5240
50°	4505	4914	5177
55°	4304	4823	5126
60°	4103	4749	5116
65°	3843	4666	5148
70°	3558	4691	5286
75°	3186	4779	5584
80°	2574	5063	5463
85°	1937	4445	4332



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	386.5	3.3
10°-20°	1104.4	9.5
20°-30°	1660.2	14.3
30°-40°	1977.6	17.0
40°-50°	2024.0	17.4
50°-60°	1822.2	15.7
60°-70°	1431.0	12.3
70°-80°	928.7	8.0
80°-90°	287.2	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°	3151.2	27.1
0°-40°	5128.8	44.1
0°-60°	8974.9	77.2
0°-90°	11621.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11621.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4083	4083	4083	4083	4083	
5°	4064	4072	4053	4076	4079	386
15°	3887	3898	3906	3939	3946	1096
25°	3533	3562	3599	3658	3669	1627
35°	3053	3090	3164	3241	3263	1905
45°	2462	2521	2632	2732	2754	1898
55°	1835	1916	2056	2163	2185	1645
65°	1207	1299	1466	1587	1617	1202
75°	613	731	919	1045	1074	648
85°	126	233	288	281	281	152
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4082.8	4082.8	4082.8	4082.8	4082.8
2.5°	4086.5	4086.5	4068.1	4086.5	4090.2
5°	4064.4	4071.8	4053.3	4075.5	4079.2
7.5°	4042.2	4042.2	4031.2	4053.3	4057.0
10°	4001.6	4005.3	4001.6	4027.5	4031.2
12.5°	3950.0	3957.3	3961.0	3986.9	3990.6
15°	3887.2	3898.3	3905.7	3938.9	3946.3
17.5°	3817.1	3828.1	3846.6	3883.5	3890.9
20°	3732.2	3746.9	3769.1	3817.1	3828.1
22.5°	3639.9	3654.6	3691.5	3735.8	3754.3
25°	3532.8	3562.3	3599.3	3658.3	3669.4
27.5°	3425.8	3451.6	3499.6	3562.3	3577.1
30°	3300.2	3340.8	3399.9	3462.7	3477.4
32.5°	3178.4	3219.0	3289.2	3355.6	3374.1
35°	3052.9	3089.8	3163.7	3241.2	3263.3
37.5°	2908.9	2956.9	3038.1	3115.7	3137.8
40°	2757.6	2816.6	2908.9	2990.2	3016.0
42.5°	2613.6	2676.4	2768.7	2857.3	2886.8
45°	2462.3	2521.3	2632.1	2731.7	2753.9
47.5°	2307.2	2373.7	2491.8	2591.5	2628.4
50°	2152.2	2222.3	2347.8	2451.2	2473.3
52.5°	1997.1	2071.0	2203.9	2314.6	2325.7
55°	1834.7	1915.9	2056.2	2163.2	2185.4
57.5°	1687.0	1757.2	1908.5	2019.3	2045.1
60°	1524.6	1602.1	1764.6	1867.9	1901.1
62.5°	1369.6	1450.8	1620.6	1724.0	1753.5
65°	1207.1	1299.4	1465.5	1587.4	1616.9
67.5°	1066.9	1155.5	1332.6	1450.8	1480.3
70°	904.4	1004.1	1192.4	1314.2	1343.7
72.5°	764.1	867.5	1055.8	1173.9	1218.2
75°	612.8	730.9	919.2	1044.7	1074.2
77.5°	465.1	601.7	793.7	889.7	889.7
80°	332.2	476.2	653.4	697.7	705.1
82.5°	217.8	358.1	483.6	479.9	479.9
85°	125.5	232.6	287.9	280.6	280.6
87.5°	48.0	96.0	103.4	103.4	99.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)