

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: P389596

Luminaire Tested: **24CZ2-130VHE-S-UNV-L940-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: P389596
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-SWPD1-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: 11763.8 lumens
Efficiency: N/A
Efficacy: 129.7 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

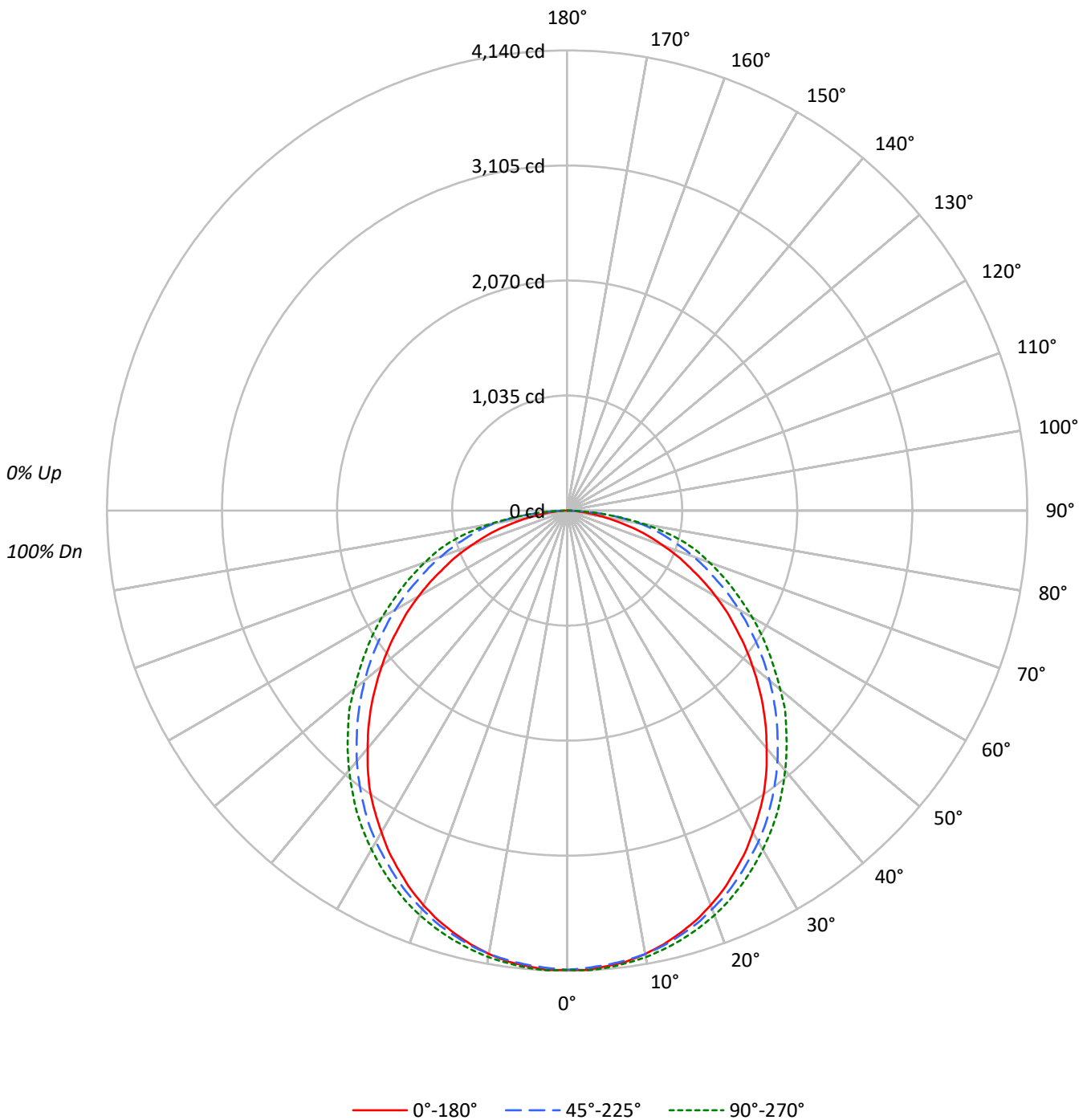
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5561	5561	5561
5°	5556	5541	5577
10°	5534	5534	5575
15°	5481	5507	5564
20°	5409	5463	5548
25°	5309	5409	5514
30°	5190	5347	5469
35°	5076	5260	5426
40°	4903	5172	5362
45°	4742	5069	5304
50°	4560	4975	5240
55°	4356	4882	5189
60°	4153	4806	5179
65°	3890	4723	5210
70°	3602	4748	5351
75°	3225	4837	5653
80°	2606	5125	5530
85°	1961	4500	4384



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	391.2	3.3
10°-20°	1117.9	9.5
20°-30°	1680.5	14.3
30°-40°	2001.7	17.0
40°-50°	2048.7	17.4
50°-60°	1844.4	15.7
60°-70°	1448.5	12.3
70°-80°	940.1	8.0
80°-90°	290.8	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°	3189.7	27.1
0°-40°	5191.4	44.1
0°-60°	9084.5	77.2
0°-90°	11763.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11763.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4133	4133	4133	4133	4133	
5°	4114	4122	4103	4125	4129	391
15°	3935	3946	3953	3987	3994	1109
25°	3576	3606	3643	3703	3714	1647
35°	3090	3128	3202	3281	3303	1928
45°	2492	2552	2664	2765	2788	1921
55°	1857	1939	2081	2190	2212	1665
65°	1222	1315	1483	1607	1637	1216
75°	620	740	930	1058	1087	656
85°	127	235	292	284	284	153
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4132.7	4132.7	4132.7	4132.7	4132.7
2.5°	4136.4	4136.4	4117.8	4136.4	4140.2
5°	4114.0	4121.5	4102.8	4125.2	4129.0
7.5°	4091.6	4091.6	4080.4	4102.8	4106.5
10°	4050.5	4054.2	4050.5	4076.7	4080.4
12.5°	3998.2	4005.7	4009.4	4035.5	4039.3
15°	3934.7	3945.9	3953.3	3987.0	3994.4
17.5°	3863.7	3874.9	3893.6	3930.9	3938.4
20°	3777.7	3792.7	3815.1	3863.7	3874.9
22.5°	3684.3	3699.3	3736.6	3781.5	3800.1
25°	3575.9	3605.8	3643.2	3703.0	3714.2
27.5°	3467.6	3493.7	3542.3	3605.8	3620.8
30°	3340.5	3381.6	3441.4	3504.9	3519.9
32.5°	3217.2	3258.3	3329.3	3396.6	3415.3
35°	3090.2	3127.5	3202.3	3280.8	3303.2
37.5°	2944.5	2993.0	3075.2	3153.7	3176.1
40°	2791.3	2851.0	2944.5	3026.7	3052.8
42.5°	2645.5	2709.0	2802.5	2892.1	2922.0
45°	2492.3	2552.1	2664.2	2765.1	2787.5
47.5°	2335.4	2402.6	2522.2	2623.1	2660.5
50°	2178.4	2249.4	2376.5	2481.1	2503.5
52.5°	2021.5	2096.2	2230.8	2342.9	2354.1
55°	1857.1	1939.3	2081.3	2189.7	2212.1
57.5°	1707.6	1778.6	1931.8	2043.9	2070.1
60°	1543.2	1621.7	1786.1	1890.7	1924.4
62.5°	1386.3	1468.5	1640.4	1745.0	1774.9
65°	1221.9	1315.3	1483.4	1606.7	1636.6
67.5°	1079.9	1169.6	1348.9	1468.5	1498.4
70°	915.5	1016.4	1206.9	1330.2	1360.1
72.5°	773.5	878.1	1068.7	1188.2	1233.1
75°	620.3	739.9	930.4	1057.5	1087.4
77.5°	470.8	609.1	803.4	900.5	900.5
80°	336.3	482.0	661.4	706.2	713.7
82.5°	220.5	362.5	489.5	485.8	485.8
85°	127.0	235.4	291.5	284.0	284.0
87.5°	48.6	97.2	104.6	104.6	100.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)