

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: P389189

Luminaire Tested: **22CZ2-29VHE-S-UNV-L940-CD1-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: P389189
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-29VHE-S-UNV-L940-CD1-U
Description: 2x2 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: 2795.0 lumens
Efficiency: N/A
Efficacy: 128.8 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

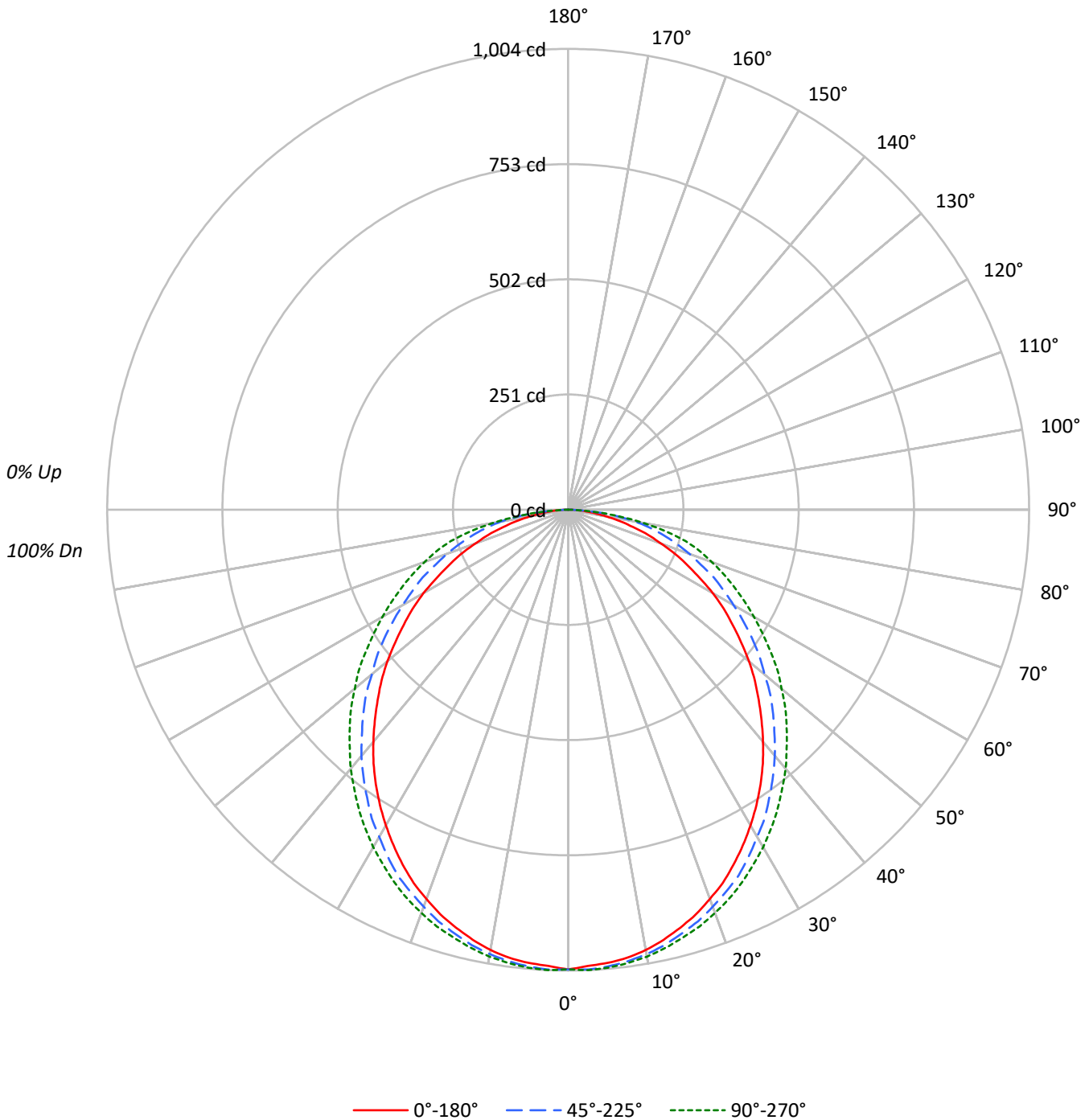
Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2695	2695	2695
5°	2677	2698	2705
10°	2662	2687	2701
15°	2627	2663	2688
20°	2584	2637	2678
25°	2532	2610	2660
30°	2468	2557	2638
35°	2399	2510	2613
40°	2318	2460	2588
45°	2233	2402	2561
50°	2151	2336	2539
55°	2050	2294	2521
60°	1958	2239	2513
65°	1827	2225	2541
70°	1683	2206	2616
75°	1519	2237	2752
80°	1314	2304	2586
85°	1087	1933	1933



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.7	3.4
10°-20°	269.5	9.6
20°-30°	403.3	14.4
30°-40°	477.6	17.1
40°-50°	486.7	17.4
50°-60°	436.2	15.6
60°-70°	341.6	12.2
70°-80°	220.2	7.9
80°-90°	65.1	2.3
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°	767.5	27.5
0°-40°	1245.2	44.5
0°-60°	2168.2	77.6
0°-90°	2795.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2795.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1002	1002	1002	1002	1002	
5°	991	994	999	1000	1002	94
15°	943	948	956	964	965	266
25°	853	861	879	891	896	393
35°	730	739	764	788	796	456
45°	587	600	631	664	673	453
55°	437	451	489	523	537	392
65°	287	304	350	383	399	285
75°	146	168	215	252	265	157
85°	35	48	63	63	63	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1001.5	1001.5	1001.5	1001.5	1001.5
2.5°	995.0	997.6	1002.8	1004.1	1004.1
5°	991.1	993.7	998.9	1000.2	1001.5
7.5°	984.6	985.9	992.4	995.0	996.3
10°	974.1	976.8	983.3	987.2	988.5
12.5°	959.8	963.7	971.5	976.8	978.1
15°	942.9	948.1	955.9	963.7	965.0
17.5°	924.6	929.8	940.2	949.4	952.0
20°	902.4	908.9	920.7	931.1	935.0
22.5°	880.3	885.5	899.8	912.9	916.8
25°	852.9	860.7	879.0	890.7	895.9
27.5°	824.2	833.3	851.6	867.2	872.4
30°	794.2	803.3	822.9	842.4	849.0
32.5°	762.9	773.3	796.8	816.4	822.9
35°	730.3	739.4	764.2	787.7	795.5
37.5°	696.4	704.2	732.9	757.7	765.5
40°	659.9	670.3	700.3	729.0	736.8
42.5°	623.4	635.1	665.1	696.4	704.2
45°	586.8	599.9	631.2	663.8	672.9
47.5°	551.6	562.1	597.3	628.6	641.6
50°	513.8	524.2	558.1	593.4	606.4
52.5°	474.7	489.0	525.5	559.5	575.1
55°	436.9	451.2	489.0	522.9	537.3
57.5°	401.7	413.4	452.5	487.7	502.1
60°	363.8	374.3	416.0	453.8	466.9
62.5°	323.4	339.1	382.1	417.3	433.0
65°	286.9	303.9	349.5	383.4	399.0
67.5°	253.0	268.6	313.0	349.5	366.4
70°	213.9	234.7	280.4	316.9	332.5
72.5°	182.6	200.8	247.8	284.3	301.2
75°	146.1	168.2	215.2	251.7	264.7
77.5°	116.1	138.2	182.6	211.3	217.8
80°	84.8	106.9	148.7	163.0	166.9
82.5°	57.4	78.2	106.9	110.8	112.2
85°	35.2	48.3	62.6	62.6	62.6
87.5°	17.0	19.6	22.2	20.9	20.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)