

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: P390359

Luminaire Tested: **22CZ2-44VHE-HRP-UNV-L930-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: P390359
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-44VHE-HRP-UNV-L930-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3235.6 lumens
Efficiency: N/A
Efficacy: 99.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

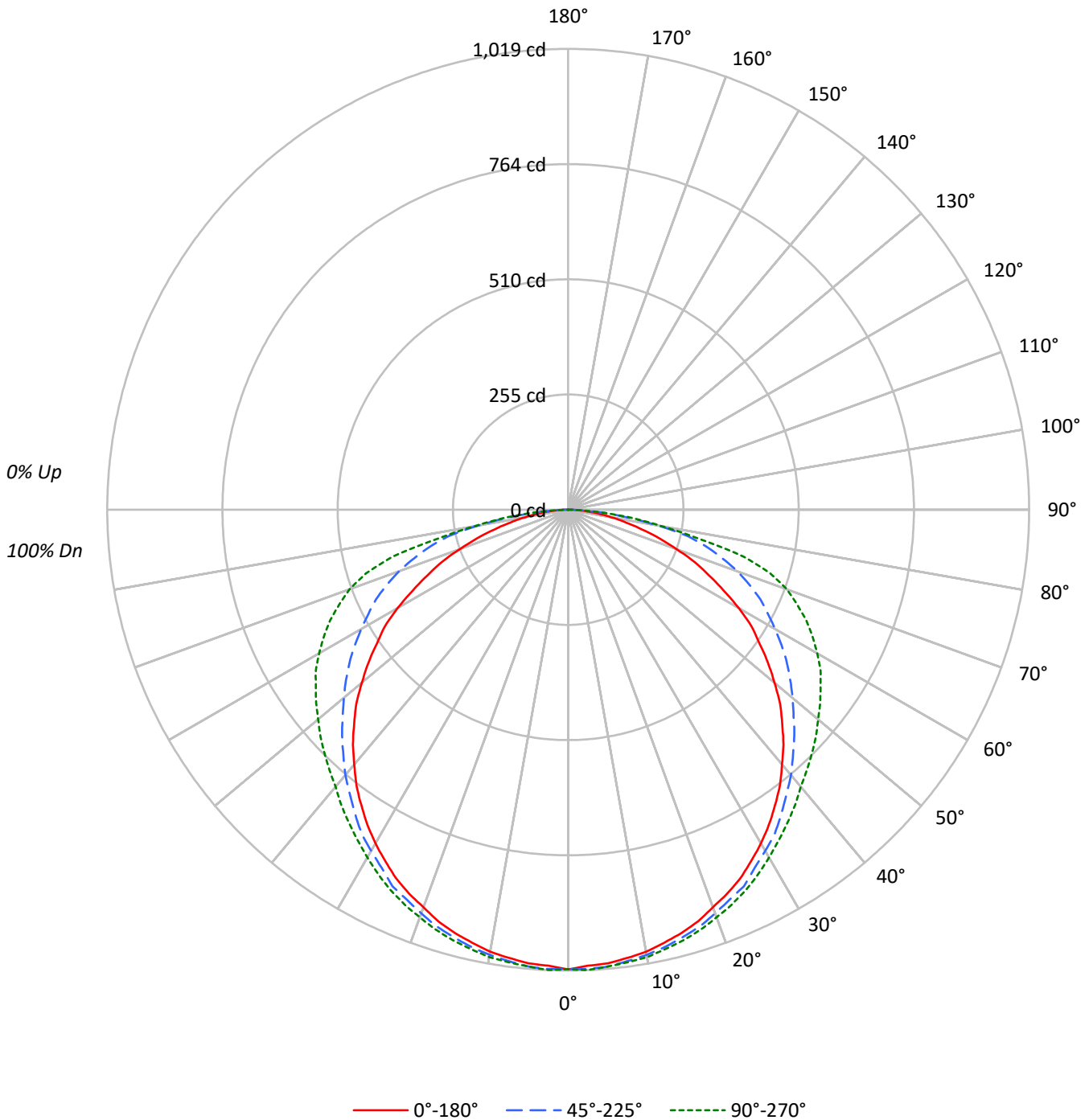
Input Watts (W): 32.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P390359

CATALOG NUMBER: 22CZ2-44VHE-HRP-UNV-L930-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P390359

CATALOG NUMBER: 22CZ2-44VHE-HRP-UNV-L930-CD1-U

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	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2735	2735	2735
5°	2720	2739	2739
10°	2712	2732	2745
15°	2699	2725	2745
20°	2679	2720	2747
25°	2671	2728	2756
30°	2648	2707	2759
35°	2620	2698	2776
40°	2584	2692	2810
45°	2545	2690	2899
50°	2491	2710	3019
55°	2423	2769	3194
60°	2344	2844	3420
65°	2183	2986	3698
70°	2004	3127	4045
75°	1757	3292	4183
80°	1512	3135	3282
85°	1321	2279	2498



TEST NUMBER: P390359

CATALOG NUMBER: 22CZ2-44VHE-HRP-UNV-L930-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.1	3.0
10°-20°	276.0	8.5
20°-30°	421.2	13.0
30°-40°	514.2	15.9
40°-50°	549.8	17.0
50°-60°	530.7	16.4
60°-70°	456.9	14.1
70°-80°	309.1	9.6
80°-90°	81.6	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°	793.3	24.5
0°-40°	1307.6	40.4
0°-60°	2388.1	73.8
0°-90°	3235.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3235.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1016	1016	1016	1016	1016	
5°	1007	1009	1014	1014	1014	96
15°	969	971	978	983	985	273
25°	900	904	919	924	928	414
35°	797	804	821	838	845	499
45°	669	681	707	743	762	516
55°	516	533	590	650	681	463
65°	343	376	469	543	581	341
75°	169	224	317	381	402	181
85°	43	60	74	76	81	48
90°	0	0	0	0	0	



TEST NUMBER: P390359

CATALOG NUMBER: 22CZ2-44VHE-HRP-UNV-L930-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1016.4	1016.4	1016.4	1016.4	1016.4
2.5°	1009.2	1011.6	1016.4	1016.4	1018.7
5°	1006.8	1009.2	1014.0	1014.0	1014.0
7.5°	999.7	1002.1	1006.8	1009.2	1009.2
10°	992.6	994.9	999.7	1002.1	1004.5
12.5°	980.7	983.0	990.2	994.9	994.9
15°	968.8	971.1	978.3	983.0	985.4
17.5°	954.5	959.2	966.4	971.1	973.5
20°	935.4	940.2	949.7	956.9	959.2
22.5°	918.8	923.5	933.1	940.2	945.0
25°	899.7	904.5	918.8	923.5	928.3
27.5°	875.9	880.7	892.6	902.1	909.2
30°	852.1	856.9	871.2	883.1	887.8
32.5°	825.9	833.1	849.7	859.3	866.4
35°	797.4	804.5	821.2	837.8	845.0
37.5°	768.8	776.0	792.6	814.0	823.6
40°	735.5	745.0	766.4	795.0	799.8
42.5°	704.5	716.4	735.5	768.8	780.7
45°	668.8	680.7	706.9	742.6	761.7
47.5°	635.5	647.4	676.0	718.8	742.6
50°	595.1	611.7	647.4	697.4	721.2
52.5°	557.0	571.3	618.9	673.6	702.2
55°	516.5	533.2	590.3	649.8	680.7
57.5°	480.8	495.1	559.4	626.0	661.7
60°	435.6	454.6	528.4	599.8	635.5
62.5°	388.0	416.5	497.5	571.3	609.3
65°	342.8	376.1	468.9	542.7	580.8
67.5°	302.3	338.0	433.2	511.7	547.5
70°	254.7	299.9	397.5	473.7	514.1
72.5°	211.8	261.8	357.0	433.2	468.9
75°	169.0	223.7	316.6	380.8	402.3
77.5°	130.9	183.3	271.3	290.4	292.8
80°	97.6	145.2	202.3	204.7	211.8
82.5°	66.6	102.3	130.9	142.8	145.2
85°	42.8	59.5	73.8	76.2	80.9
87.5°	19.0	21.4	26.2	23.8	23.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)