

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: P390367

Luminaire Tested: **22CZ2-44VHE-HRP-UNV-L950-CD1-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: P390367
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-L950-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3511.6 lumens
Efficiency: N/A
Efficacy: 107.7 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

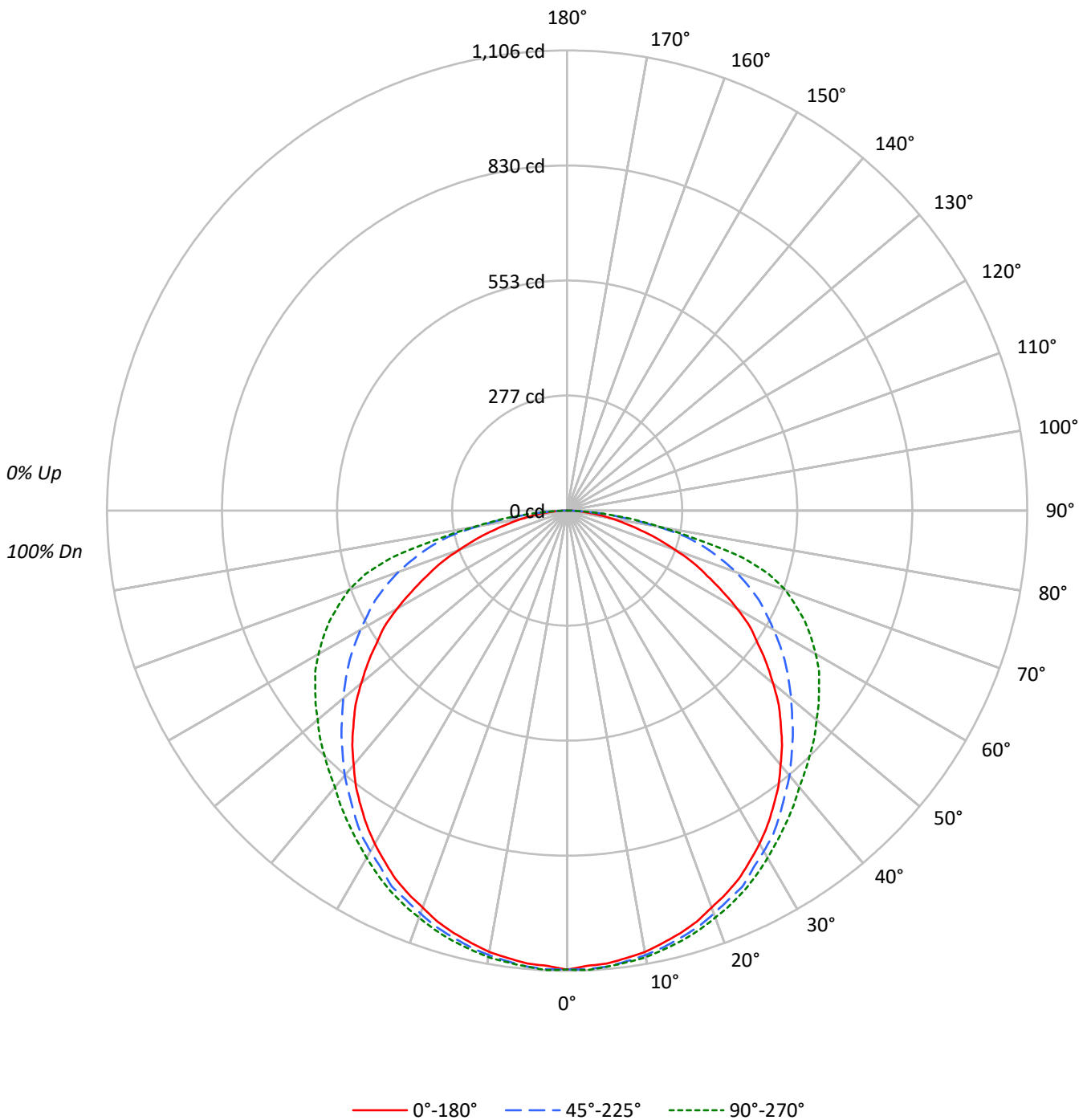
Input Watts (W): 32.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2968	2968	2968
5°	2952	2973	2973
10°	2943	2965	2979
15°	2929	2958	2980
20°	2907	2952	2981
25°	2899	2961	2991
30°	2874	2938	2994
35°	2843	2928	3013
40°	2804	2922	3049
45°	2762	2920	3146
50°	2704	2941	3277
55°	2630	3006	3466
60°	2544	3087	3712
65°	2369	3240	4013
70°	2175	3394	4390
75°	1907	3572	4539
80°	1641	3403	3563
85°	1436	2473	2711



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.3	3.0
10°-20°	299.6	8.5
20°-30°	457.1	13.0
30°-40°	558.1	15.9
40°-50°	596.7	17.0
50°-60°	576.0	16.4
60°-70°	495.8	14.1
70°-80°	335.5	9.6
80°-90°	88.5	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°	861.0	24.5
0°-40°	1419.1	40.4
0°-60°	2591.8	73.8
0°-90°	3511.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3511.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1103	1103	1103	1103	1103	
5°	1093	1095	1100	1100	1100	104
15°	1051	1054	1062	1067	1070	297
25°	976	982	997	1002	1008	449
35°	865	873	891	909	917	541
45°	726	739	767	806	827	560
55°	561	579	641	705	739	502
65°	372	408	509	589	630	370
75°	183	243	344	413	437	197
85°	46	65	80	83	88	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1103.1	1103.1	1103.1	1103.1	<i>1103.1</i>
2.5°	<i>1095.3</i>	<i>1097.9</i>	<i>1103.1</i>	<i>1103.1</i>	<i>1105.6</i>
5°	1092.7	1095.3	1100.5	1100.5	<i>1100.5</i>
7.5°	1085.0	1087.6	1092.7	1095.3	<i>1095.3</i>
10°	1077.2	1079.8	1085.0	1087.6	<i>1090.1</i>
12.5°	1064.3	1066.9	1074.6	1079.8	<i>1079.8</i>
15°	1051.4	1054.0	1061.7	1066.9	<i>1069.5</i>
17.5°	1035.9	1041.1	1048.8	1054.0	<i>1056.6</i>
20°	1015.2	1020.4	1030.7	1038.5	<i>1041.1</i>
22.5°	997.1	1002.3	1012.6	1020.4	<i>1025.6</i>
25°	976.5	981.6	997.1	1002.3	<i>1007.5</i>
27.5°	950.6	955.8	968.7	979.1	<i>986.8</i>
30°	924.8	930.0	945.5	958.4	<i>963.6</i>
32.5°	896.4	904.1	922.2	932.6	<i>940.3</i>
35°	865.4	873.1	891.2	909.3	<i>917.1</i>
37.5°	834.4	842.1	860.2	883.5	<i>893.8</i>
40°	798.2	808.6	831.8	862.8	<i>868.0</i>
42.5°	764.6	777.6	798.2	834.4	<i>847.3</i>
45°	725.9	738.8	767.2	806.0	<i>826.6</i>
47.5°	689.7	702.6	733.6	780.1	<i>806.0</i>
50°	645.8	663.9	702.6	756.9	<i>782.7</i>
52.5°	604.5	620.0	671.6	731.1	<i>762.1</i>
55°	560.6	578.7	640.7	705.2	<i>738.8</i>
57.5°	521.8	537.3	607.1	679.4	<i>718.1</i>
60°	472.7	493.4	573.5	651.0	<i>689.7</i>
62.5°	421.1	452.1	539.9	620.0	<i>661.3</i>
65°	372.0	408.2	508.9	589.0	<i>630.3</i>
67.5°	328.1	366.8	470.2	555.4	<i>594.2</i>
70°	276.4	325.5	431.4	514.1	<i>558.0</i>
72.5°	229.9	284.2	387.5	470.2	<i>508.9</i>
75°	183.4	242.8	343.6	413.3	<i>436.6</i>
77.5°	142.1	198.9	294.5	315.2	<i>317.7</i>
80°	105.9	157.6	219.6	222.2	<i>229.9</i>
82.5°	72.3	111.1	142.1	155.0	<i>157.6</i>
85°	46.5	64.6	80.1	82.7	<i>87.8</i>
87.5°	20.7	23.2	28.4	25.8	<i>25.8</i>
90°	0.0	0.0	0.0	0.0	<i>0.0</i>

(END OF REPORT)