

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: P390461

Luminaire Tested: **22CZ2-55VHE-HRP-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: P390461
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: 22CZ2-55VHE-HRP-UNV-L940-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4009.8 lumens
Efficiency: N/A
Efficacy: 101.8 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

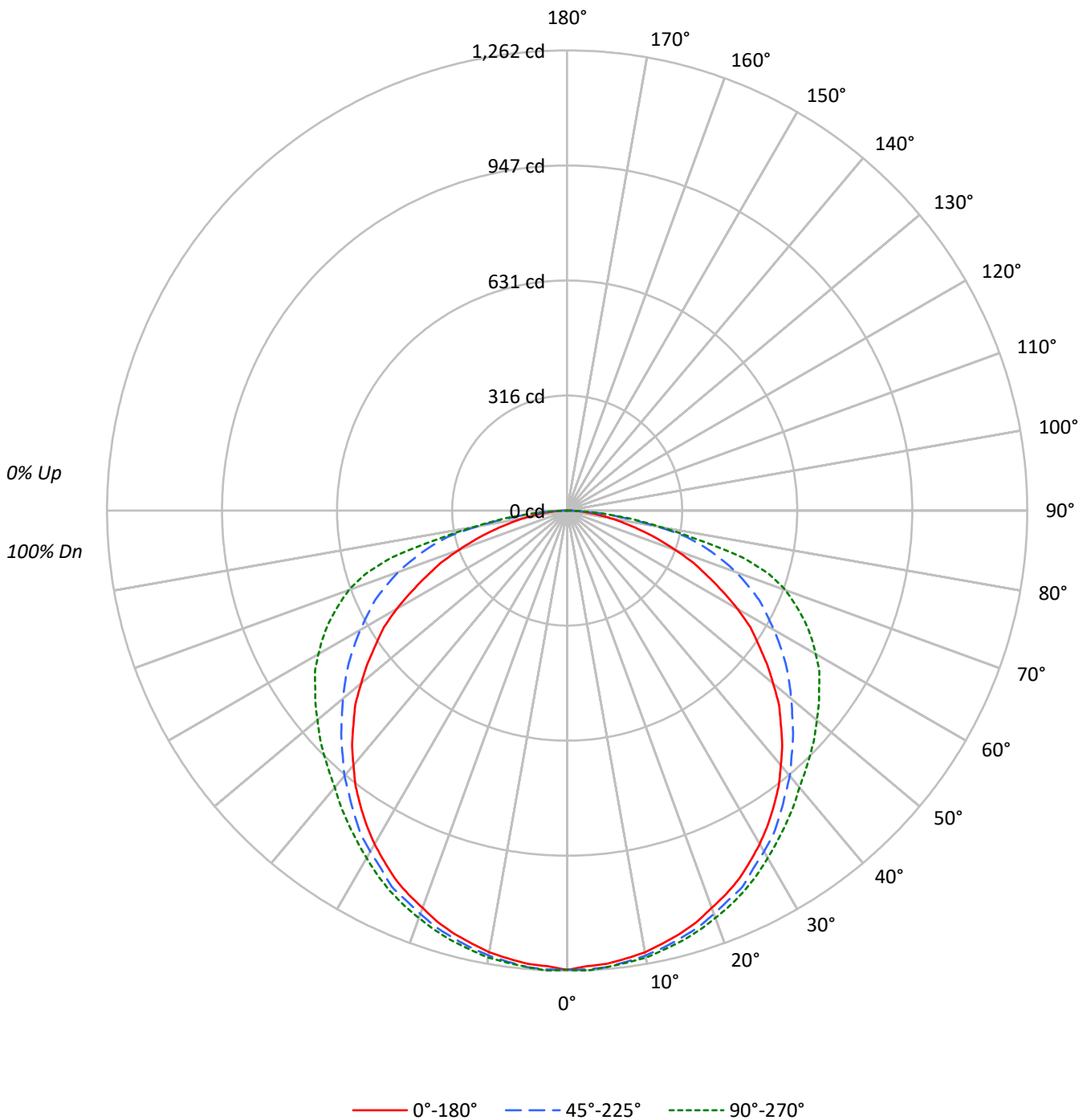
Input Watts (W): 39.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3389	3389	3389
5°	3370	3394	3394
10°	3361	3385	3401
15°	3345	3378	3402
20°	3320	3371	3404
25°	3311	3381	3416
30°	3281	3355	3419
35°	3246	3343	3440
40°	3202	3336	3482
45°	3154	3334	3592
50°	3087	3359	3742
55°	3003	3432	3958
60°	2905	3524	4239
65°	2705	3700	4583
70°	2483	3876	5013
75°	2177	4079	5183
80°	1874	3885	4068
85°	1639	2822	3097



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.1	3.0
10°-20°	342.1	8.5
20°-30°	521.9	13.0
30°-40°	637.3	15.9
40°-50°	681.4	17.0
50°-60°	657.7	16.4
60°-70°	566.2	14.1
70°-80°	383.1	9.6
80°-90°	101.1	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°	983.2	24.5
0°-40°	1620.4	40.4
0°-60°	2959.5	73.8
0°-90°	4009.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4009.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1260	1260	1260	1260	1260	
5°	1248	1251	1257	1257	1257	118
15°	1201	1204	1212	1218	1221	339
25°	1115	1121	1139	1144	1150	513
35°	988	997	1018	1038	1047	618
45°	829	844	876	920	944	640
55°	640	661	732	805	844	574
65°	425	466	581	672	720	422
75°	209	277	392	472	498	225
85°	53	74	91	94	100	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1259.5	1259.5	1259.5	1259.5	1259.5
2.5°	1250.7	1253.6	1259.5	1259.5	1262.5
5°	1247.7	1250.7	1256.6	1256.6	1256.6
7.5°	1238.9	1241.8	1247.7	1250.7	1250.7
10°	1230.1	1233.0	1238.9	1241.8	1244.8
12.5°	1215.3	1218.3	1227.1	1233.0	1233.0
15°	1200.6	1203.5	1212.4	1218.3	1221.2
17.5°	1182.9	1188.8	1197.6	1203.5	1206.5
20°	1159.3	1165.2	1177.0	1185.8	1188.8
22.5°	1138.6	1144.5	1156.3	1165.2	1171.1
25°	1115.0	1120.9	1138.6	1144.5	1150.4
27.5°	1085.5	1091.4	1106.2	1118.0	1126.8
30°	1056.0	1061.9	1079.6	1094.4	1100.3
32.5°	1023.6	1032.4	1053.1	1064.9	1073.7
35°	988.2	997.0	1017.7	1038.3	1047.2
37.5°	952.8	961.6	982.3	1008.8	1020.6
40°	911.5	923.3	949.8	985.2	991.1
42.5°	873.1	887.9	911.5	952.8	967.5
45°	828.9	843.6	876.1	920.3	943.9
47.5°	787.6	802.3	837.7	890.8	920.3
50°	737.4	758.1	802.3	864.3	893.8
52.5°	690.2	707.9	766.9	834.8	870.2
55°	640.1	660.7	731.5	805.3	843.6
57.5°	595.9	613.6	693.2	775.8	820.0
60°	539.8	563.4	654.8	743.3	787.6
62.5°	480.8	516.2	616.5	707.9	755.1
65°	424.8	466.1	581.1	672.5	719.7
67.5°	374.6	418.9	536.9	634.2	678.4
70°	315.6	371.7	492.6	587.0	637.1
72.5°	262.5	324.5	442.5	536.9	581.1
75°	209.4	277.3	392.3	472.0	498.5
77.5°	162.2	227.1	336.3	359.9	362.8
80°	120.9	179.9	250.7	253.7	262.5
82.5°	82.6	126.8	162.2	177.0	179.9
85°	53.1	73.7	91.4	94.4	100.3
87.5°	23.6	26.5	32.4	29.5	29.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)