

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: P390125

Luminaire Tested: **22CZ2-20VHE-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: P390125
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: 22CZ2-20VHE-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: 1456.0 lumens
Efficiency: N/A
Efficacy: 102.5 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

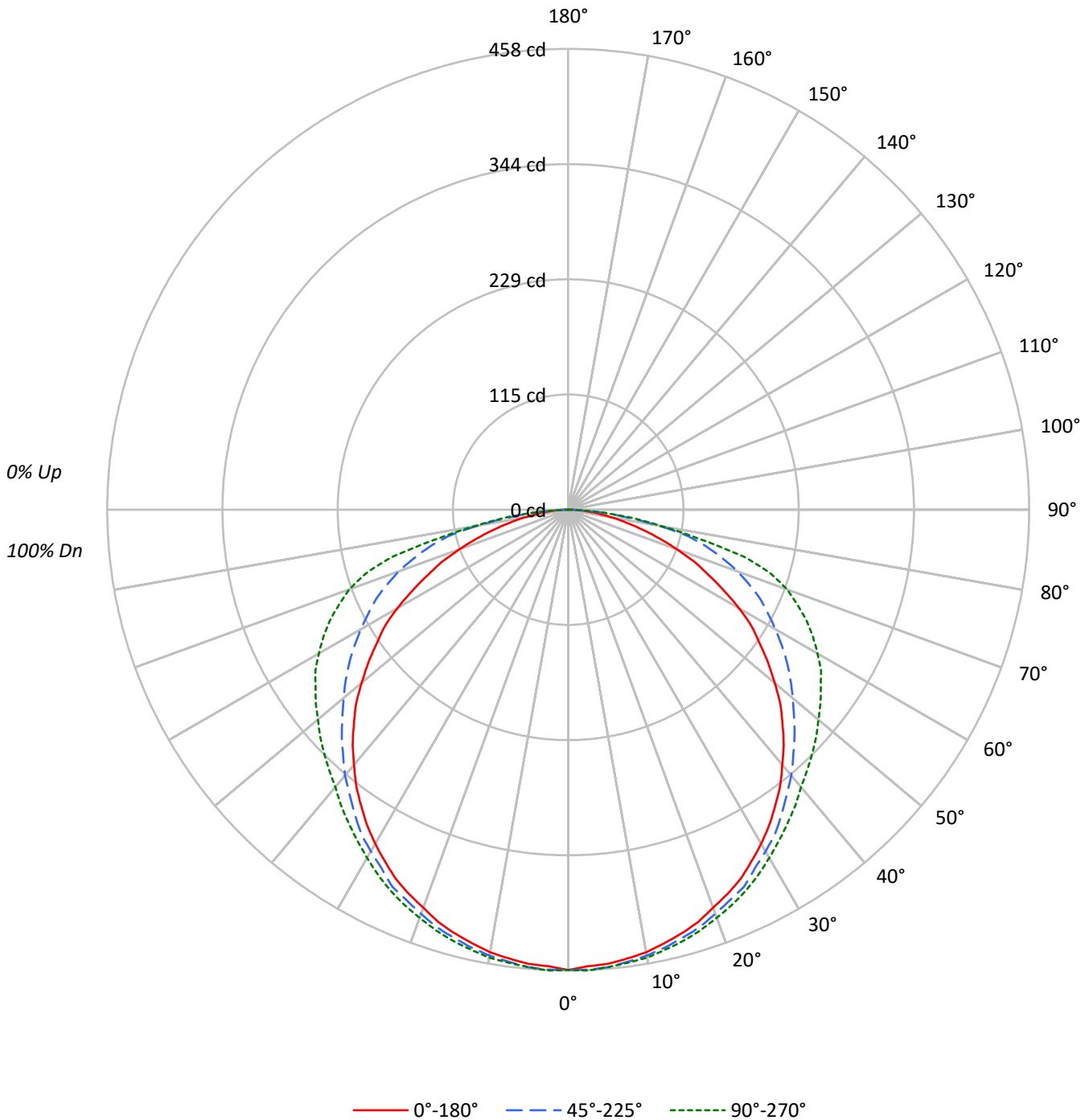
Input Watts (W): 14.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1231	1231	1231
5°	1224	1233	1233
10°	1220	1229	1235
15°	1214	1226	1235
20°	1205	1224	1236
25°	1202	1227	1240
30°	1191	1218	1241
35°	1179	1214	1249
40°	1163	1212	1264
45°	1145	1211	1304
50°	1121	1220	1358
55°	1090	1246	1437
60°	1055	1280	1539
65°	982	1344	1664
70°	902	1408	1821
75°	790	1482	1882
80°	680	1410	1477
85°	596	1025	1124



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.3	3.0
10°-20°	124.2	8.5
20°-30°	189.5	13.0
30°-40°	231.4	15.9
40°-50°	247.4	17.0
50°-60°	238.8	16.4
60°-70°	205.6	14.1
70°-80°	139.1	9.6
80°-90°	36.7	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°	357.0	24.5
0°-40°	588.4	40.4
0°-60°	1074.6	73.8
0°-90°	1456.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1456.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	457	457	457	457	457	
5°	453	454	456	456	456	43
15°	436	437	440	442	443	123
25°	405	407	413	416	418	186
35°	359	362	370	377	380	225
45°	301	306	318	334	343	232
55°	232	240	266	292	306	208
65°	154	169	211	244	261	153
75°	76	101	142	171	181	82
85°	19	27	33	34	36	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	457.4	457.4	457.4	457.4	457.4
2.5°	454.1	455.2	457.4	457.4	458.4
5°	453.1	454.1	456.3	456.3	456.3
7.5°	449.9	450.9	453.1	454.1	454.1
10°	446.6	447.7	449.9	450.9	452.0
12.5°	441.3	442.4	445.6	447.7	447.7
15°	435.9	437.0	440.2	442.4	443.4
17.5°	429.5	431.6	434.9	437.0	438.1
20°	420.9	423.1	427.4	430.6	431.6
22.5°	413.4	415.6	419.9	423.1	425.2
25°	404.9	407.0	413.4	415.6	417.7
27.5°	394.2	396.3	401.7	405.9	409.2
30°	383.4	385.6	392.0	397.4	399.5
32.5°	371.7	374.9	382.4	386.7	389.9
35°	358.8	362.0	369.5	377.0	380.2
37.5°	346.0	349.2	356.7	366.3	370.6
40°	331.0	335.3	344.9	357.7	359.9
42.5°	317.0	322.4	331.0	346.0	351.3
45°	301.0	306.3	318.1	334.2	342.7
47.5°	286.0	291.3	304.2	323.5	334.2
50°	267.8	275.3	291.3	313.8	324.5
52.5°	250.6	257.1	278.5	303.1	316.0
55°	232.4	239.9	265.6	292.4	306.3
57.5°	216.4	222.8	251.7	281.7	297.8
60°	196.0	204.6	237.8	269.9	286.0
62.5°	174.6	187.4	223.9	257.1	274.2
65°	154.2	169.2	211.0	244.2	261.3
67.5°	136.0	152.1	194.9	230.3	246.4
70°	114.6	135.0	178.9	213.1	231.4
72.5°	95.3	117.8	160.7	194.9	211.0
75°	76.0	100.7	142.5	171.4	181.0
77.5°	58.9	82.5	122.1	130.7	131.7
80°	43.9	65.3	91.0	92.1	95.3
82.5°	30.0	46.1	58.9	64.3	65.3
85°	19.3	26.8	33.2	34.3	36.4
87.5°	8.6	9.6	11.8	10.7	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)