

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: P390120

Luminaire Tested: **22CZ2-20VHE-HRP-UNV-L935-CD1-SDWPD1-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: P390120
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-L935-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1406.0 lumens
Efficiency: N/A
Efficacy: 99.0 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

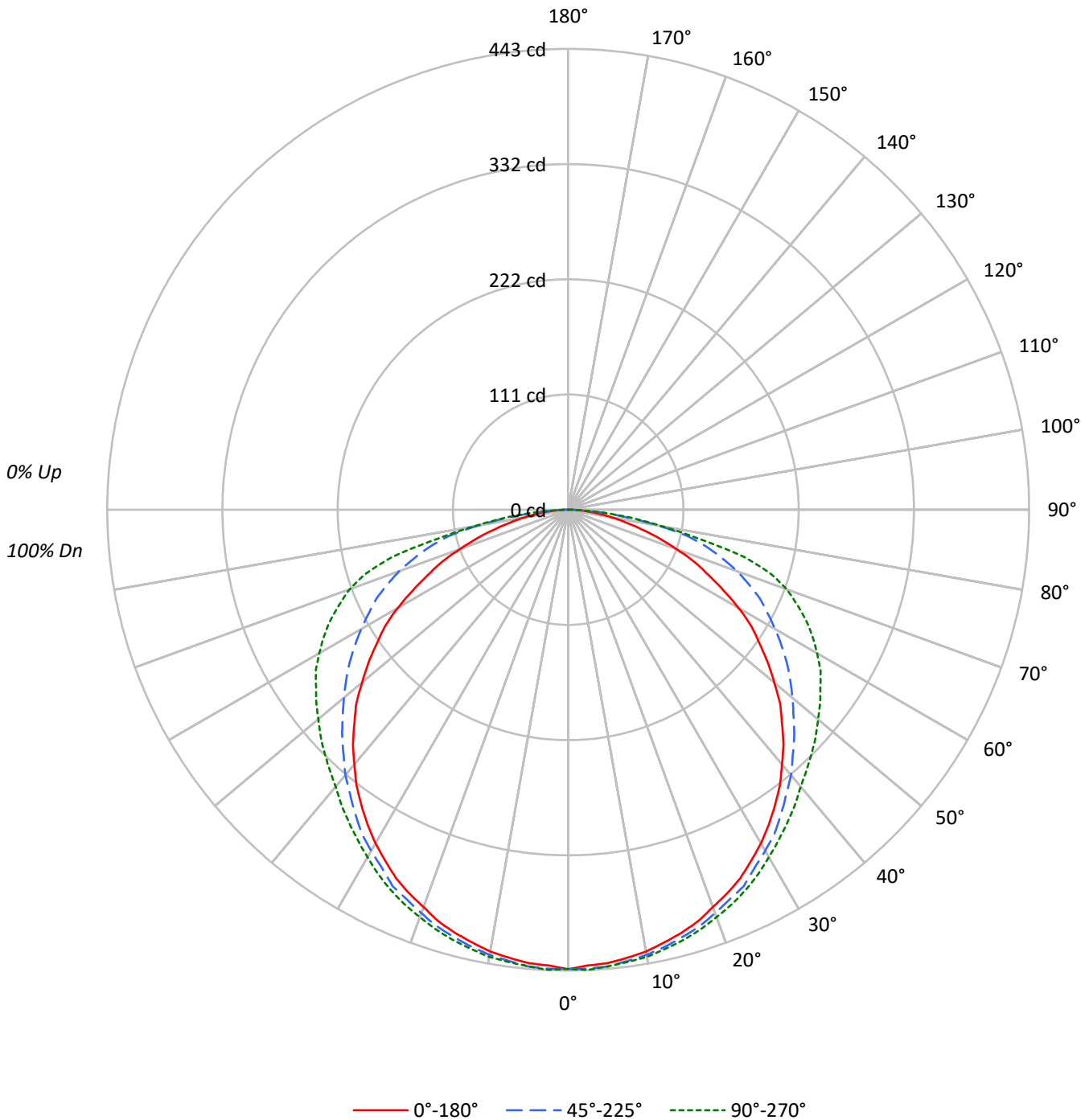
Input Watts (W): 14.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1188	1188	1188
5°	1182	1190	1190
10°	1179	1187	1193
15°	1173	1184	1193
20°	1164	1182	1194
25°	1161	1185	1198
30°	1151	1176	1199
35°	1138	1172	1206
40°	1123	1170	1221
45°	1106	1169	1260
50°	1083	1178	1312
55°	1053	1203	1388
60°	1019	1236	1486
65°	948	1298	1607
70°	871	1359	1758
75°	763	1431	1817
80°	657	1362	1427
85°	574	991	1087



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.8	3.0
10°-20°	120.0	8.5
20°-30°	183.0	13.0
30°-40°	223.5	15.9
40°-50°	238.9	17.0
50°-60°	230.6	16.4
60°-70°	198.5	14.1
70°-80°	134.3	9.6
80°-90°	35.5	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°	344.7	24.5
0°-40°	568.2	40.4
0°-60°	1037.7	73.8
0°-90°	1406.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1406.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	442	442	442	442	442	
5°	438	438	441	441	441	42
15°	421	422	425	427	428	119
25°	391	393	399	401	403	180
35°	346	350	357	364	367	217
45°	291	296	307	323	331	224
55°	224	232	256	282	296	201
65°	149	163	204	236	252	148
75°	73	97	138	166	175	79
85°	19	26	32	33	35	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	441.6	441.6	441.6	441.6	441.6
2.5°	438.5	439.6	441.6	441.6	442.7
5°	437.5	438.5	440.6	440.6	440.6
7.5°	434.4	435.4	437.5	438.5	438.5
10°	431.3	432.3	434.4	435.4	436.5
12.5°	426.1	427.2	430.3	432.3	432.3
15°	421.0	422.0	425.1	427.2	428.2
17.5°	414.8	416.8	419.9	422.0	423.0
20°	406.5	408.6	412.7	415.8	416.8
22.5°	399.2	401.3	405.4	408.6	410.6
25°	391.0	393.0	399.2	401.3	403.4
27.5°	380.6	382.7	387.9	392.0	395.1
30°	370.3	372.4	378.6	383.7	385.8
32.5°	358.9	362.0	369.2	373.4	376.5
35°	346.5	349.6	356.8	364.1	367.2
37.5°	334.1	337.2	344.4	353.7	357.9
40°	319.6	323.7	333.0	345.5	347.5
42.5°	306.2	311.3	319.6	334.1	339.3
45°	290.6	295.8	307.2	322.7	331.0
47.5°	276.2	281.3	293.7	312.4	322.7
50°	258.6	265.8	281.3	303.1	313.4
52.5°	242.0	248.2	268.9	292.7	305.1
55°	224.4	231.7	256.5	282.4	295.8
57.5°	208.9	215.1	243.1	272.0	287.5
60°	189.3	197.6	229.6	260.6	276.2
62.5°	168.6	181.0	216.2	248.2	264.8
65°	148.9	163.4	203.8	235.8	252.4
67.5°	131.4	146.9	188.2	222.4	237.9
70°	110.7	130.3	172.7	205.8	223.4
72.5°	92.1	113.8	155.1	188.2	203.8
75°	73.4	97.2	137.6	165.5	174.8
77.5°	56.9	79.6	117.9	126.2	127.2
80°	42.4	63.1	87.9	89.0	92.1
82.5°	29.0	44.5	56.9	62.1	63.1
85°	18.6	25.9	32.1	33.1	35.2
87.5°	8.3	9.3	11.4	10.3	10.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)