

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: P390128

Luminaire Tested: **22CZ2-20VHE-HRP-UNV-L950-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: P390128
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-L950-CD1-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: 1545.4 lumens
Efficiency: N/A
Efficacy: 108.8 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

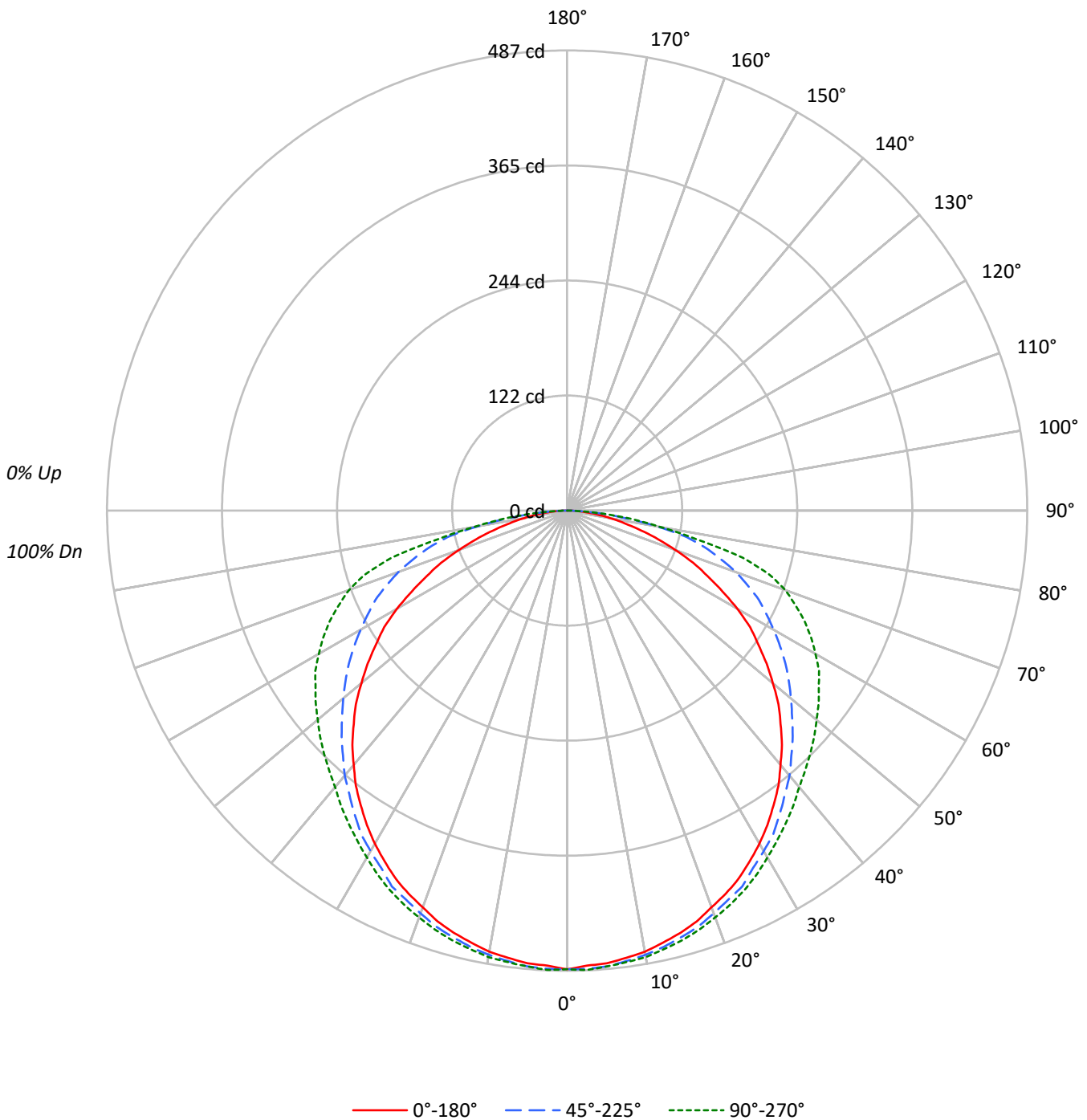
Input Watts (W): 14.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1306	1306	1306
5°	1299	1308	1308
10°	1295	1305	1311
15°	1289	1302	1311
20°	1279	1299	1312
25°	1276	1303	1317
30°	1265	1293	1317
35°	1251	1288	1326
40°	1234	1286	1342
45°	1216	1285	1384
50°	1190	1294	1442
55°	1157	1323	1525
60°	1119	1358	1633
65°	1042	1426	1766
70°	957	1494	1932
75°	839	1572	1997
80°	722	1497	1568
85°	633	1087	1195



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.9	3.0
10°-20°	131.8	8.5
20°-30°	201.2	13.0
30°-40°	245.6	15.9
40°-50°	262.6	17.0
50°-60°	253.5	16.4
60°-70°	218.2	14.1
70°-80°	147.6	9.6
80°-90°	39.0	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°	378.9	24.5
0°-40°	624.5	40.4
0°-60°	1140.6	73.8
0°-90°	1545.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1545.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	485	485	485	485	485	
5°	481	482	484	484	484	46
15°	463	464	467	470	471	131
25°	430	432	439	441	443	198
35°	381	384	392	400	404	238
45°	320	325	338	355	364	247
55°	247	255	282	310	325	221
65°	164	180	224	259	277	163
75°	81	107	151	182	192	87
85°	20	28	35	36	39	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	485.4	485.4	485.4	485.4	485.4
2.5°	482.0	483.2	485.4	485.4	486.6
5°	480.9	482.0	484.3	484.3	484.3
7.5°	477.5	478.6	480.9	482.0	482.0
10°	474.1	475.2	477.5	478.6	479.8
12.5°	468.4	469.5	472.9	475.2	475.2
15°	462.7	463.8	467.2	469.5	470.7
17.5°	455.9	458.2	461.6	463.8	465.0
20°	446.8	449.1	453.6	457.0	458.2
22.5°	438.8	441.1	445.6	449.1	451.3
25°	429.7	432.0	438.8	441.1	443.4
27.5°	418.4	420.6	426.3	430.9	434.3
30°	407.0	409.3	416.1	421.8	424.0
32.5°	394.5	397.9	405.9	410.4	413.8
35°	380.8	384.3	392.2	400.2	403.6
37.5°	367.2	370.6	378.6	388.8	393.4
40°	351.3	355.8	366.1	379.7	382.0
42.5°	336.5	342.2	351.3	367.2	372.9
45°	319.5	325.1	337.6	354.7	363.8
47.5°	303.5	309.2	322.9	343.3	354.7
50°	284.2	292.2	309.2	333.1	344.5
52.5°	266.0	272.8	295.6	321.7	335.4
55°	246.7	254.7	281.9	310.4	325.1
57.5°	229.6	236.5	267.2	299.0	316.0
60°	208.0	217.1	252.4	286.5	303.5
62.5°	185.3	198.9	237.6	272.8	291.0
65°	163.7	179.6	224.0	259.2	277.4
67.5°	144.4	161.4	206.9	244.4	261.5
70°	121.6	143.2	189.9	226.2	245.6
72.5°	101.2	125.1	170.5	206.9	224.0
75°	80.7	106.9	151.2	181.9	192.1
77.5°	62.5	87.5	129.6	138.7	139.8
80°	46.6	69.3	96.6	97.8	101.2
82.5°	31.8	48.9	62.5	68.2	69.3
85°	20.5	28.4	35.2	36.4	38.7
87.5°	9.1	10.2	12.5	11.4	11.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)