

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: P390123

Luminaire Tested: **22CZ2-20VHE-HRP-UNV-L940-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: P390123
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-SDWPD1-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: 1420.6 lumens
Efficiency: N/A
Efficacy: 100.0 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

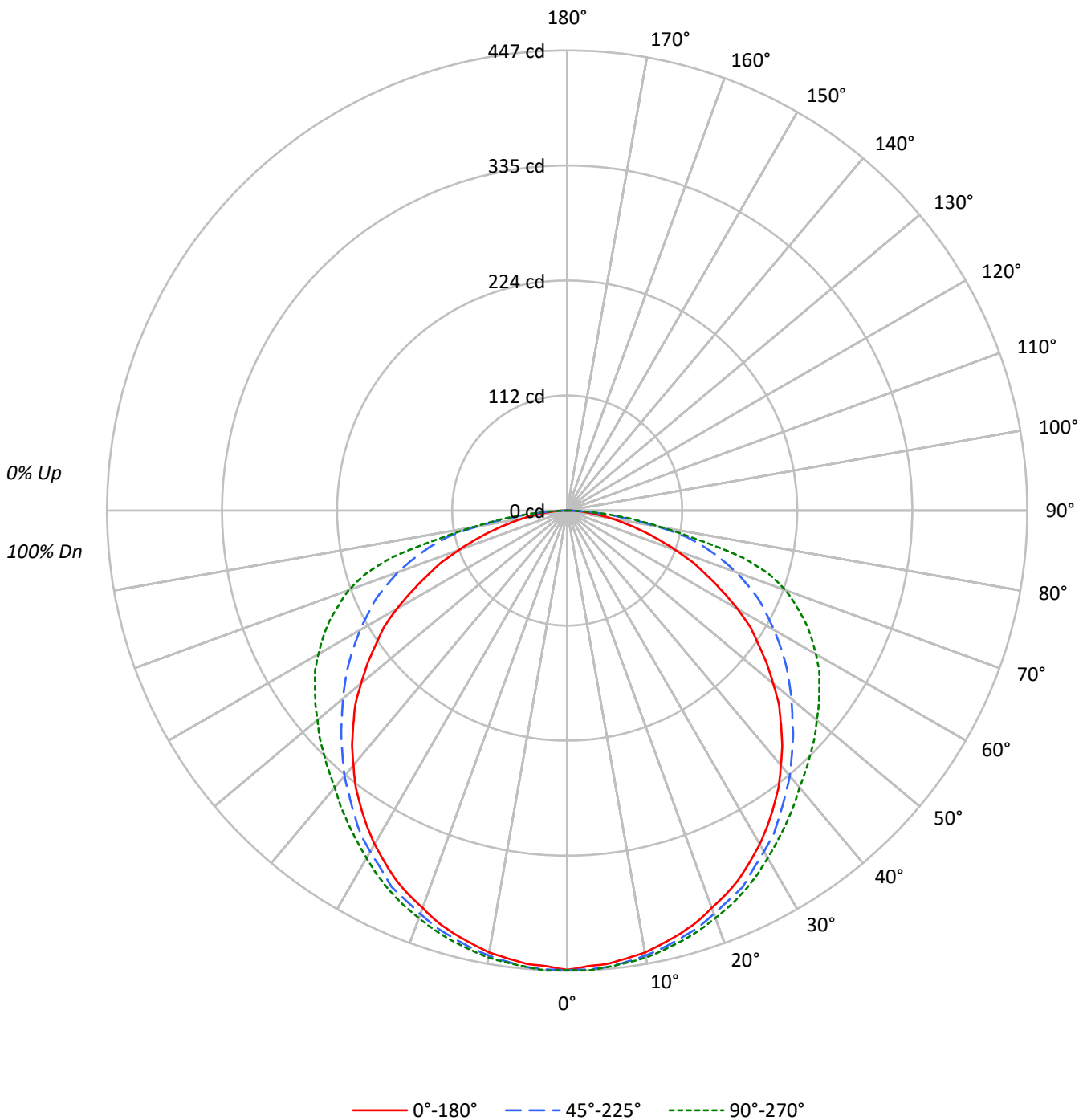
Input Watts (W): 14.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1201	1201	1201
5°	1194	1203	1203
10°	1191	1199	1205
15°	1185	1197	1205
20°	1176	1194	1206
25°	1173	1198	1210
30°	1162	1189	1211
35°	1150	1184	1219
40°	1134	1182	1233
45°	1118	1181	1273
50°	1094	1190	1325
55°	1064	1216	1402
60°	1029	1249	1502
65°	958	1311	1624
70°	880	1373	1776
75°	771	1445	1836
80°	663	1376	1441
85°	580	1000	1096



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.2	3.0
10°-20°	121.2	8.5
20°-30°	184.9	13.0
30°-40°	225.8	15.9
40°-50°	241.4	17.0
50°-60°	233.0	16.4
60°-70°	200.6	14.1
70°-80°	135.7	9.6
80°-90°	35.8	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°	348.3	24.5
0°-40°	574.1	40.4
0°-60°	1048.5	73.8
0°-90°	1420.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1420.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	446	446	446	446	446	
5°	442	443	445	445	445	42
15°	425	426	430	432	433	120
25°	395	397	403	406	408	182
35°	350	353	360	368	371	219
45°	294	299	310	326	334	227
55°	227	234	259	285	299	203
65°	150	165	206	238	255	150
75°	74	98	139	167	177	80
85°	19	26	32	33	36	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	446.2	446.2	446.2	446.2	446.2
2.5°	443.1	444.1	446.2	446.2	447.3
5°	442.1	443.1	445.2	445.2	445.2
7.5°	438.9	440.0	442.1	443.1	443.1
10°	435.8	436.8	438.9	440.0	441.0
12.5°	430.6	431.6	434.7	436.8	436.8
15°	425.3	426.4	429.5	431.6	432.6
17.5°	419.1	421.2	424.3	426.4	427.4
20°	410.7	412.8	417.0	420.1	421.2
22.5°	403.4	405.5	409.7	412.8	414.9
25°	395.0	397.1	403.4	405.5	407.6
27.5°	384.6	386.7	391.9	396.1	399.2
30°	374.1	376.2	382.5	387.7	389.8
32.5°	362.6	365.8	373.1	377.3	380.4
35°	350.1	353.2	360.5	367.9	371.0
37.5°	337.6	340.7	348.0	357.4	361.6
40°	322.9	327.1	336.5	349.0	351.1
42.5°	309.3	314.6	322.9	337.6	342.8
45°	293.7	298.9	310.4	326.1	334.4
47.5°	279.0	284.3	296.8	315.6	326.1
50°	261.3	268.6	284.3	306.2	316.6
52.5°	244.5	250.8	271.7	295.7	308.3
55°	226.8	234.1	259.2	285.3	298.9
57.5°	211.1	217.4	245.6	274.8	290.5
60°	191.2	199.6	232.0	263.4	279.0
62.5°	170.3	182.9	218.4	250.8	267.5
65°	150.5	165.1	205.9	238.3	255.0
67.5°	132.7	148.4	190.2	224.7	240.4
70°	111.8	131.7	174.5	208.0	225.7
72.5°	93.0	115.0	156.8	190.2	205.9
75°	74.2	98.2	139.0	167.2	176.6
77.5°	57.5	80.5	119.1	127.5	128.5
80°	42.8	63.7	88.8	89.9	93.0
82.5°	29.3	44.9	57.5	62.7	63.7
85°	18.8	26.1	32.4	33.4	35.5
87.5°	8.4	9.4	11.5	10.5	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)