

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: P390502

Luminaire Tested: **22CZ2-60VHE-HRP-UNV-L930-CD1-SWPD1-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: P390502
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: 22CZ2-60VHE-HRP-UNV-L930-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4226.0 lumens
Efficiency: N/A
Efficacy: 95.8 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

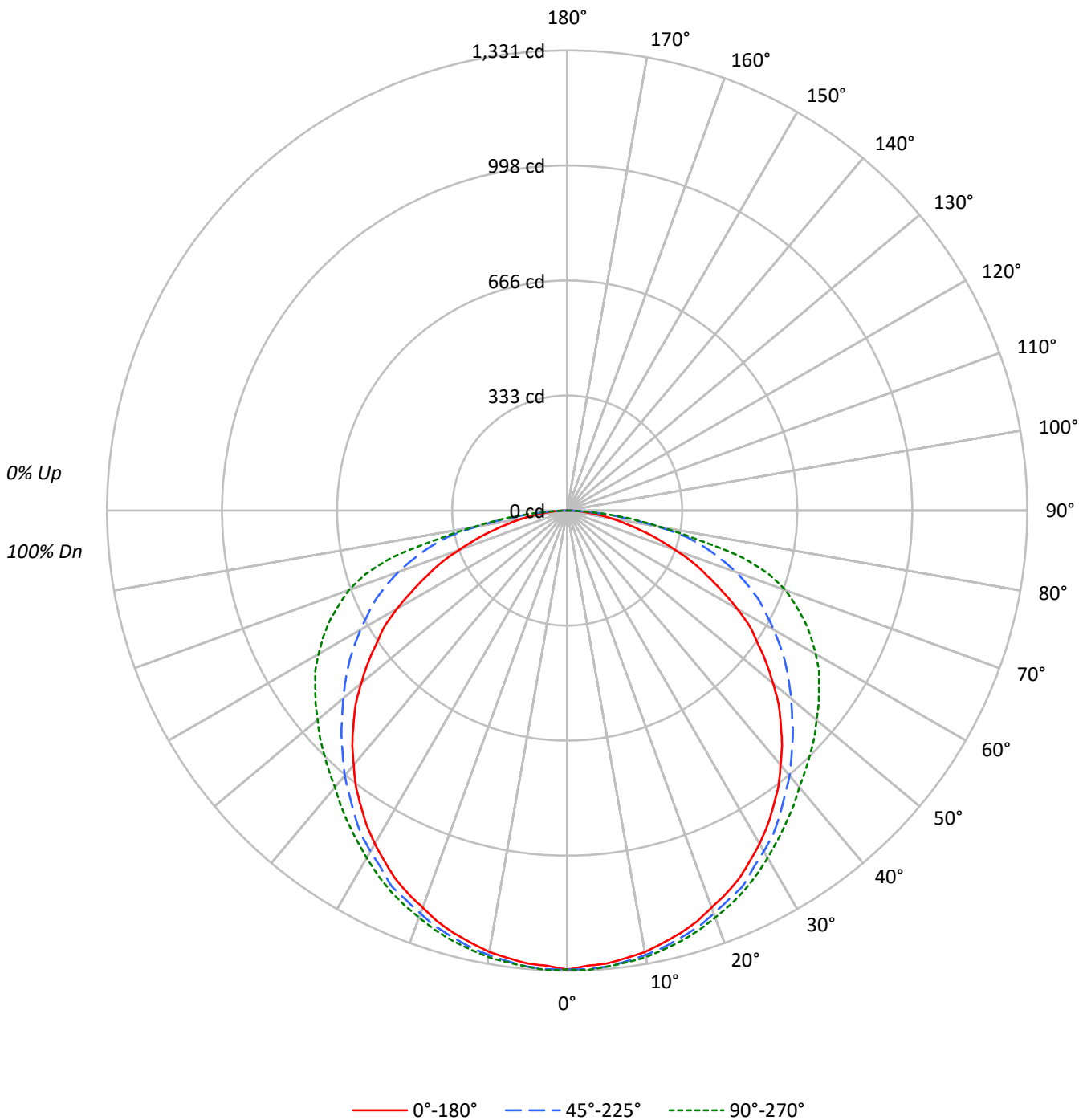
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3572	3572	3572
5°	3552	3578	3578
10°	3542	3568	3585
15°	3525	3560	3585
20°	3499	3552	3588
25°	3489	3563	3600
30°	3458	3535	3603
35°	3421	3523	3625
40°	3374	3516	3669
45°	3325	3514	3786
50°	3254	3540	3944
55°	3165	3617	4171
60°	3062	3715	4468
65°	2851	3899	4830
70°	2617	4085	5283
75°	2295	4299	5463
80°	1976	4094	4288
85°	1729	2976	3264



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.6	3.0
10°-20°	360.5	8.5
20°-30°	550.1	13.0
30°-40°	671.6	15.9
40°-50°	718.1	17.0
50°-60°	693.2	16.4
60°-70°	596.7	14.1
70°-80°	403.7	9.6
80°-90°	106.5	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°	1036.2	24.5
0°-40°	1707.8	40.4
0°-60°	3119.1	73.8
0°-90°	4226.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4226.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1328	1328	1328	1328	1328	
5°	1315	1318	1324	1324	1324	125
15°	1265	1268	1278	1284	1287	357
25°	1175	1181	1200	1206	1212	541
35°	1042	1051	1072	1094	1104	652
45°	874	889	923	970	995	674
55°	675	696	771	849	889	605
65°	448	491	612	709	758	445
75°	221	292	414	497	525	237
85°	56	78	96	100	106	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1327.5	1327.5	1327.5	1327.5	1327.5
2.5°	1318.1	1321.2	1327.5	1327.5	1330.6
5°	1315.0	1318.1	1324.4	1324.4	1324.4
7.5°	1305.7	1308.8	1315.0	1318.1	1318.1
10°	1296.4	1299.5	1305.7	1308.8	1311.9
12.5°	1280.8	1283.9	1293.3	1299.5	1299.5
15°	1265.3	1268.4	1277.7	1283.9	1287.0
17.5°	1246.6	1252.8	1262.2	1268.4	1271.5
20°	1221.8	1228.0	1240.4	1249.7	1252.8
22.5°	1200.0	1206.2	1218.7	1228.0	1234.2
25°	1175.1	1181.3	1200.0	1206.2	1212.4
27.5°	1144.0	1150.3	1165.8	1178.2	1187.6
30°	1113.0	1119.2	1137.8	1153.4	1159.6
32.5°	1078.8	1088.1	1109.8	1122.3	1131.6
35°	1041.5	1050.8	1072.5	1094.3	1103.6
37.5°	1004.1	1013.5	1035.2	1063.2	1075.6
40°	960.6	973.1	1001.0	1038.3	1044.6
42.5°	920.2	935.8	960.6	1004.1	1019.7
45°	873.6	889.1	923.3	969.9	994.8
47.5°	830.1	845.6	882.9	938.9	969.9
50°	777.2	799.0	845.6	910.9	942.0
52.5°	727.5	746.1	808.3	879.8	917.1
55°	674.6	696.4	771.0	848.7	889.1
57.5°	628.0	646.6	730.6	817.6	864.2
60°	568.9	593.8	690.2	783.4	830.1
62.5°	506.7	544.0	649.7	746.1	795.9
65°	447.7	491.2	612.4	708.8	758.5
67.5°	394.8	441.5	565.8	668.4	715.0
70°	332.6	391.7	519.2	618.7	671.5
72.5°	276.7	342.0	466.3	565.8	612.4
75°	220.7	292.2	413.5	497.4	525.4
77.5°	171.0	239.4	354.4	379.3	382.4
80°	127.5	189.6	264.2	267.4	276.7
82.5°	87.0	133.7	171.0	186.5	189.6
85°	56.0	77.7	96.4	99.5	105.7
87.5°	24.9	28.0	34.2	31.1	31.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)