

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: P388036

Luminaire Tested: **22CZ2-44VHE-SQR-UNV-L935-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: P388036
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-44VHE-SQR-UNV-L935-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3704.8 lumens
Efficiency: N/A
Efficacy: 113.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

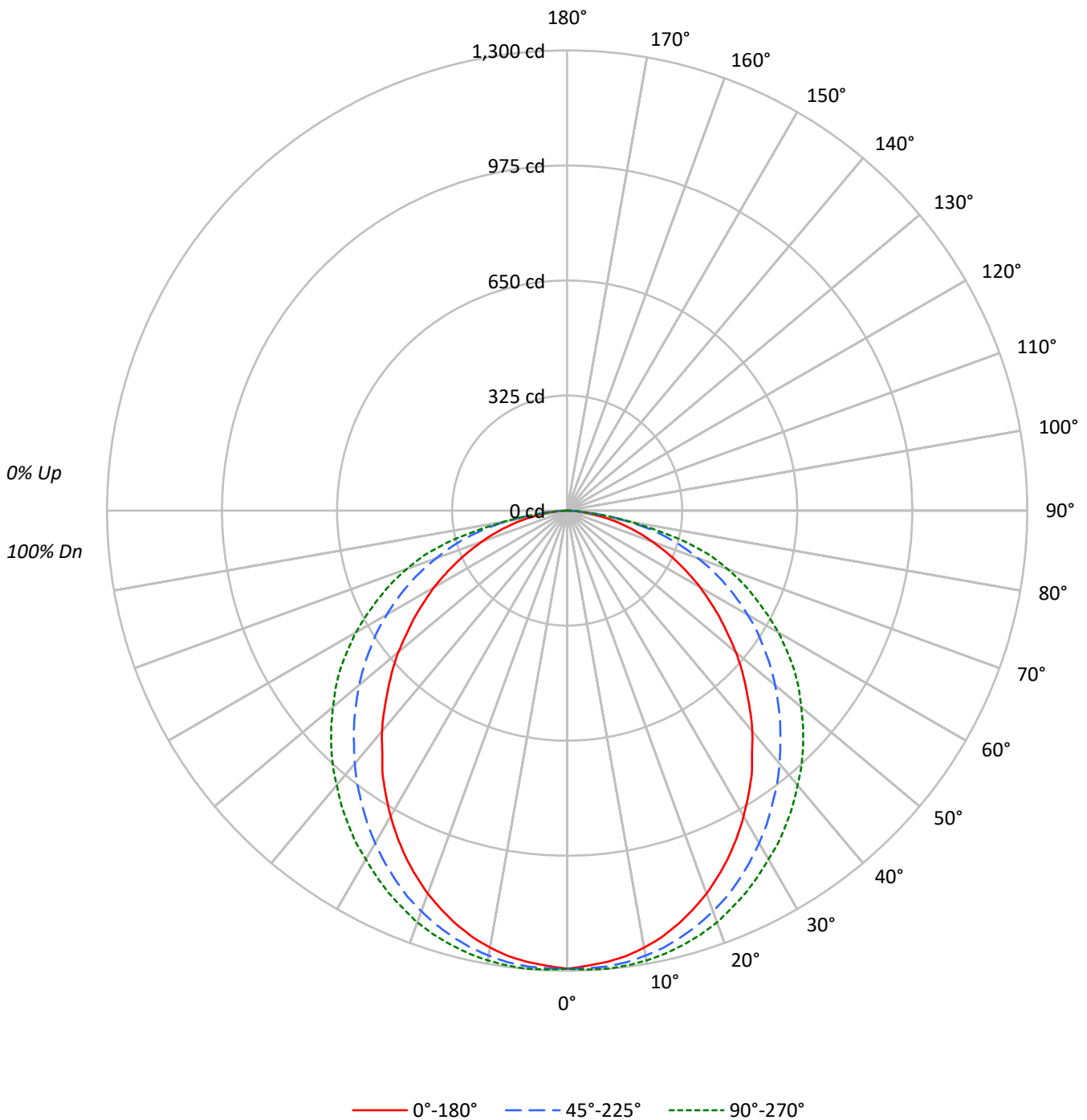
Input Watts (W): 32.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3483	3483	3483
5°	3458	3491	3510
10°	3426	3488	3527
15°	3370	3473	3537
20°	3298	3449	3545
25°	3206	3415	3540
30°	3098	3371	3535
35°	2986	3322	3547
40°	2860	3280	3558
45°	2724	3239	3587
50°	2606	3210	3615
55°	2467	3184	3671
60°	2337	3171	3710
65°	2183	3146	3740
70°	2006	3099	3791
75°	1810	3016	3657
80°	1553	2670	2752
85°	1247	1575	1247



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.7	3.3
10°-20°	350.8	9.5
20°-30°	526.9	14.2
30°-40°	628.4	17.0
40°-50°	649.7	17.5
50°-60°	597.3	16.1
60°-70°	475.5	12.8
70°-80°	290.5	7.8
80°-90°	63.2	1.7
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°	1000.3	27.0
0°-40°	1628.7	44.0
0°-60°	2875.7	77.6
0°-90°	3704.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3704.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1294	1294	1294	1294	1294	
5°	1280	1284	1292	1298	1300	121
15°	1210	1224	1247	1264	1270	341
25°	1080	1106	1150	1182	1192	497
35°	909	948	1011	1064	1080	567
45°	716	767	851	920	942	553
55°	526	584	679	756	782	470
65°	343	401	494	563	587	340
75°	174	225	290	341	352	185
85°	40	49	51	44	40	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1294.2	1294.2	1294.2	1294.2	1294.2
2.5°	1287.1	1288.9	1294.2	1297.7	1297.7
5°	1280.1	1283.6	1292.4	1297.7	1299.5
7.5°	1269.6	1274.8	1287.1	1294.2	1295.9
10°	1253.7	1260.8	1276.6	1287.1	1290.7
12.5°	1234.4	1244.9	1264.3	1278.4	1281.9
15°	1209.8	1223.8	1246.7	1264.3	1269.6
17.5°	1181.6	1199.2	1227.4	1248.5	1255.5
20°	1151.7	1169.3	1204.5	1229.1	1237.9
22.5°	1116.6	1139.4	1179.9	1208.0	1215.0
25°	1079.7	1106.0	1150.0	1181.6	1192.2
27.5°	1039.2	1070.9	1118.3	1157.0	1165.8
30°	997.0	1030.4	1084.9	1127.1	1137.7
32.5°	953.0	991.7	1049.8	1097.2	1111.3
35°	909.1	947.8	1011.1	1063.8	1079.7
37.5°	858.1	903.8	974.1	1028.7	1048.0
40°	814.1	858.1	933.7	993.5	1012.8
42.5°	764.9	812.4	891.5	956.6	979.4
45°	715.7	766.7	851.1	919.6	942.5
47.5°	669.9	720.9	808.9	881.0	903.8
50°	622.5	675.2	766.7	840.5	863.4
52.5°	571.5	629.5	724.5	798.3	824.7
55°	525.8	583.8	678.7	756.1	782.5
57.5°	478.3	538.1	636.5	710.4	735.0
60°	434.3	492.3	589.1	661.2	689.3
62.5°	386.8	446.6	541.6	611.9	638.3
65°	342.9	400.9	494.1	562.7	587.3
67.5°	298.9	357.0	444.9	509.9	538.1
70°	255.0	313.0	393.9	457.2	481.8
72.5°	216.3	267.3	344.6	402.7	425.5
75°	174.1	225.1	290.1	341.1	351.7
77.5°	135.4	181.1	235.6	258.5	262.0
80°	100.2	135.4	172.3	177.6	177.6
82.5°	66.8	93.2	107.3	109.0	107.3
85°	40.4	49.2	51.0	44.0	40.4
87.5°	14.1	14.1	8.8	5.3	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)