

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: P388013

Luminaire Tested: **22CZ2-44HE-SQR-UNV-L935-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: P388013
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: 22CZ2-44HE-SQR-UNV-L935-CD1-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: 3624.7 lumens
Efficiency: N/A
Efficacy: 103.6 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

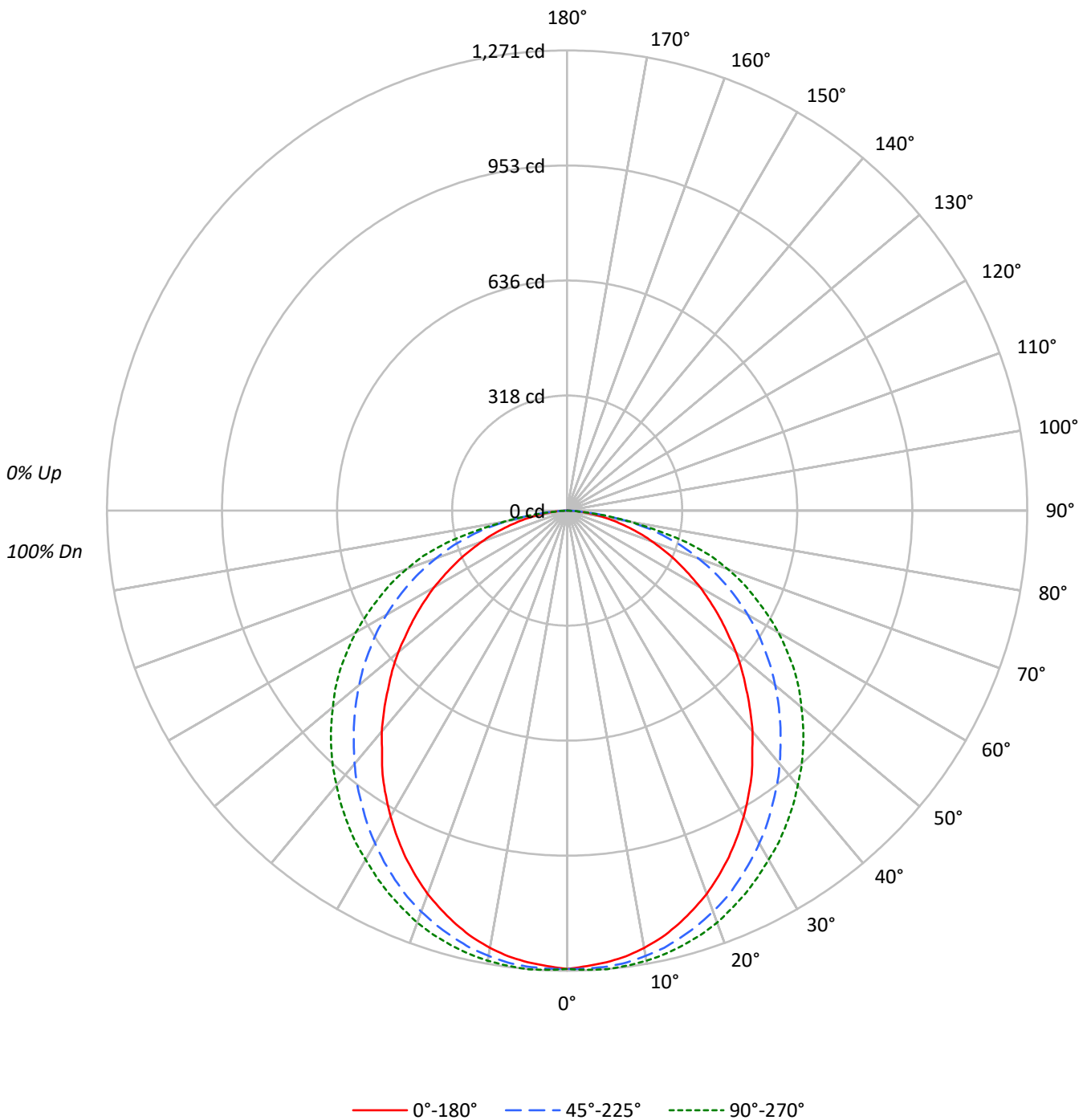
Input Watts (W): 35
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3407	3407	3407
5°	3383	3416	3434
10°	3352	3413	3451
15°	3297	3398	3460
20°	3227	3375	3468
25°	3136	3341	3463
30°	3031	3298	3459
35°	2922	3250	3470
40°	2798	3209	3481
45°	2665	3169	3509
50°	2550	3140	3536
55°	2413	3116	3592
60°	2287	3102	3630
65°	2136	3078	3659
70°	1963	3032	3709
75°	1771	2952	3578
80°	1520	2613	2693
85°	1223	1541	1223



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.0	3.3
10°-20°	343.2	9.5
20°-30°	515.5	14.2
30°-40°	614.8	17.0
40°-50°	635.6	17.5
50°-60°	584.4	16.1
60°-70°	465.2	12.8
70°-80°	284.2	7.8
80°-90°	61.8	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°	978.7	27.0
0°-40°	1593.5	44.0
0°-60°	2813.5	77.6
0°-90°	3624.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3624.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1266	1266	1266	1266	1266	
5°	1252	1256	1264	1270	1271	119
15°	1184	1197	1220	1237	1242	333
25°	1056	1082	1125	1156	1166	486
35°	889	927	989	1041	1056	555
45°	700	750	833	900	922	541
55°	514	571	664	740	766	460
65°	336	392	483	550	575	332
75°	170	220	284	334	344	181
85°	40	48	50	43	40	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1266.2	1266.2	1266.2	1266.2	1266.2
2.5°	1259.3	1261.0	1266.2	1269.6	1269.6
5°	1252.4	1255.9	1264.5	1269.6	1271.4
7.5°	1242.1	1247.3	1259.3	1266.2	1267.9
10°	1226.6	1233.5	1249.0	1259.3	1262.8
12.5°	1207.7	1218.0	1236.9	1250.7	1254.2
15°	1183.6	1197.4	1219.7	1236.9	1242.1
17.5°	1156.1	1173.3	1200.8	1221.5	1228.3
20°	1126.8	1144.0	1178.5	1202.5	1211.1
22.5°	1092.4	1114.8	1154.4	1181.9	1188.8
25°	1056.3	1082.1	1125.1	1156.1	1166.4
27.5°	1016.7	1047.7	1094.2	1132.0	1140.6
30°	975.5	1008.1	1061.5	1102.8	1113.1
32.5°	932.4	970.3	1027.1	1073.5	1087.3
35°	889.4	927.3	989.2	1040.8	1056.3
37.5°	839.5	884.3	953.1	1006.4	1025.3
40°	796.5	839.5	913.5	972.0	990.9
42.5°	748.4	794.8	872.2	935.9	958.2
45°	700.2	750.1	832.7	899.8	922.1
47.5°	655.5	705.4	791.4	861.9	884.3
50°	609.0	660.6	750.1	822.3	844.7
52.5°	559.1	615.9	708.8	781.0	806.9
55°	514.4	571.2	664.1	739.8	765.6
57.5°	467.9	526.4	622.8	695.0	719.1
60°	424.9	481.7	576.3	646.9	674.4
62.5°	378.5	437.0	529.9	598.7	624.5
65°	335.5	392.2	483.4	550.5	574.6
67.5°	292.5	349.2	435.3	498.9	526.4
70°	249.5	306.2	385.4	447.3	471.4
72.5°	211.6	261.5	337.2	394.0	416.3
75°	170.3	220.2	283.9	333.8	344.1
77.5°	132.5	177.2	230.5	252.9	256.3
80°	98.1	132.5	168.6	173.8	173.8
82.5°	65.4	91.2	104.9	106.7	104.9
85°	39.6	48.2	49.9	43.0	39.6
87.5°	13.8	13.8	8.6	5.2	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)