

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: P387554

Luminaire Tested: **14CZ2-48HE-SQR-UNV-L930-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: P387554
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1911-580-2)
Test Lab: INNOVATIONS CENTER(G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-48HE-SQR-UNV-L930-CD1-U
Description: 1x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3821.7 lumens
Efficiency: N/A
Efficacy: 103.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.34 / 1.44
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

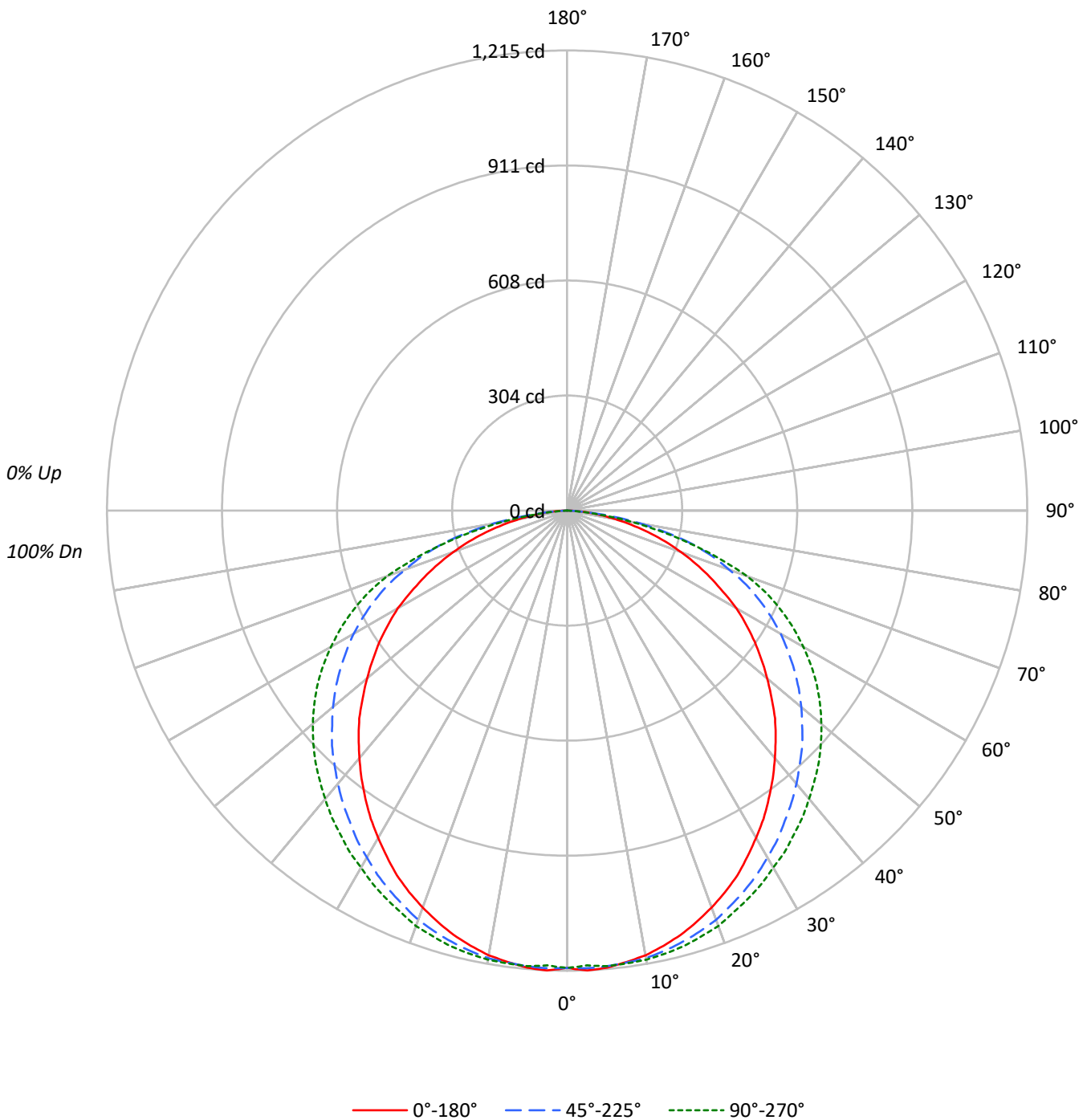
Input Watts (W): 36.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	105	101	97	93	97	93	90		93	90	87		89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	73		80	76	72		77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61		70	64	60		68	63	59	56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	51		60	54	50	48
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		54	48	43	41
6	68	55	45	39	67	54	45	39	52	44	38		50	43	38		49	42	38	35
7	63	49	40	34	62	49	40	34	47	39	34		46	39	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		42	35	30		41	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27		38	32	27		37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24		36	29	24		35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3250	3250	3250
5°	3273	3262	3262
10°	3258	3279	3289
15°	3230	3284	3316
20°	3194	3293	3342
25°	3157	3288	3357
30°	3100	3286	3382
35°	3050	3290	3430
40°	2997	3309	3491
45°	2954	3342	3577
50°	2887	3379	3669
55°	2837	3434	3777
60°	2778	3504	3877
65°	2649	3569	3974
70°	2515	3577	3970
75°	2303	3565	3505
80°	1970	3045	2717
85°	1547	1726	1010



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.8	3.0
10°-20°	331.5	8.7
20°-30°	507.0	13.3
30°-40°	621.5	16.3
40°-50°	668.4	17.5
50°-60°	642.3	16.8
60°-70°	534.8	14.0
70°-80°	328.2	8.6
80°-90°	73.1	1.9
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°	953.3	24.9
0°-40°	1574.8	41.2
0°-60°	2885.5	75.5
0°-90°	3821.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3821.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1208	1208	1208	1208	1208	
5°	1212	1200	1208	1208	1208	115
15°	1160	1156	1179	1186	1190	327
25°	1063	1073	1108	1121	1131	489
35°	928	952	1002	1029	1044	581
45°	776	811	878	919	940	597
55°	605	657	732	782	805	540
65°	416	480	560	607	624	412
75°	222	289	343	341	337	235
85°	50	75	56	38	33	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1207.7	1207.7	1207.7	1207.7	1207.7
2.5°	1215.4	1203.8	1209.6	1207.7	1201.9
5°	1211.5	1200.0	1207.7	1207.7	1207.7
7.5°	1201.9	1192.3	1203.8	1205.8	1205.8
10°	1192.3	1184.6	1200.0	1201.9	1203.8
12.5°	1176.9	1171.1	1190.4	1194.2	1198.1
15°	1159.5	1155.7	1178.8	1186.5	1190.4
17.5°	1138.3	1140.3	1165.3	1174.9	1178.8
20°	1115.2	1121.0	1149.9	1159.5	1167.2
22.5°	1090.2	1097.9	1128.7	1140.3	1148.0
25°	1063.2	1072.9	1107.5	1121.0	1130.6
27.5°	1030.5	1045.9	1084.4	1101.8	1111.4
30°	997.7	1015.1	1057.5	1078.6	1088.3
32.5°	965.0	984.3	1032.4	1053.6	1069.0
35°	928.4	951.5	1001.6	1028.6	1044.0
37.5°	891.8	918.8	972.7	1003.5	1020.9
40°	853.3	882.2	941.9	976.6	993.9
42.5°	814.8	847.5	909.1	947.7	966.9
45°	776.2	810.9	878.3	918.8	940.0
47.5°	731.9	774.3	841.7	888.0	909.1
50°	689.6	735.8	807.1	855.2	876.4
52.5°	647.2	695.3	770.5	820.5	841.7
55°	604.8	656.8	731.9	782.0	805.1
57.5°	560.5	614.4	691.5	743.5	764.7
60°	516.2	572.1	651.0	699.2	720.4
62.5°	464.2	529.7	606.7	654.9	674.1
65°	416.0	479.6	560.5	606.7	624.1
67.5°	367.9	433.4	512.4	554.7	570.1
70°	319.7	385.2	454.6	495.0	504.6
72.5°	271.6	337.1	402.6	425.7	421.8
75°	221.5	288.9	342.9	340.9	337.1
77.5°	173.4	238.8	271.6	258.1	252.3
80°	127.1	190.7	196.5	183.0	175.3
82.5°	86.7	136.8	123.3	107.9	100.2
85°	50.1	75.1	55.9	38.5	32.7
87.5°	21.2	19.3	5.8	5.8	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)