

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: P387560

Luminaire Tested: **14CZ2-48HE-SQR-UNV-L940-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: P387560
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-L940-CD1-U
Description: 1x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

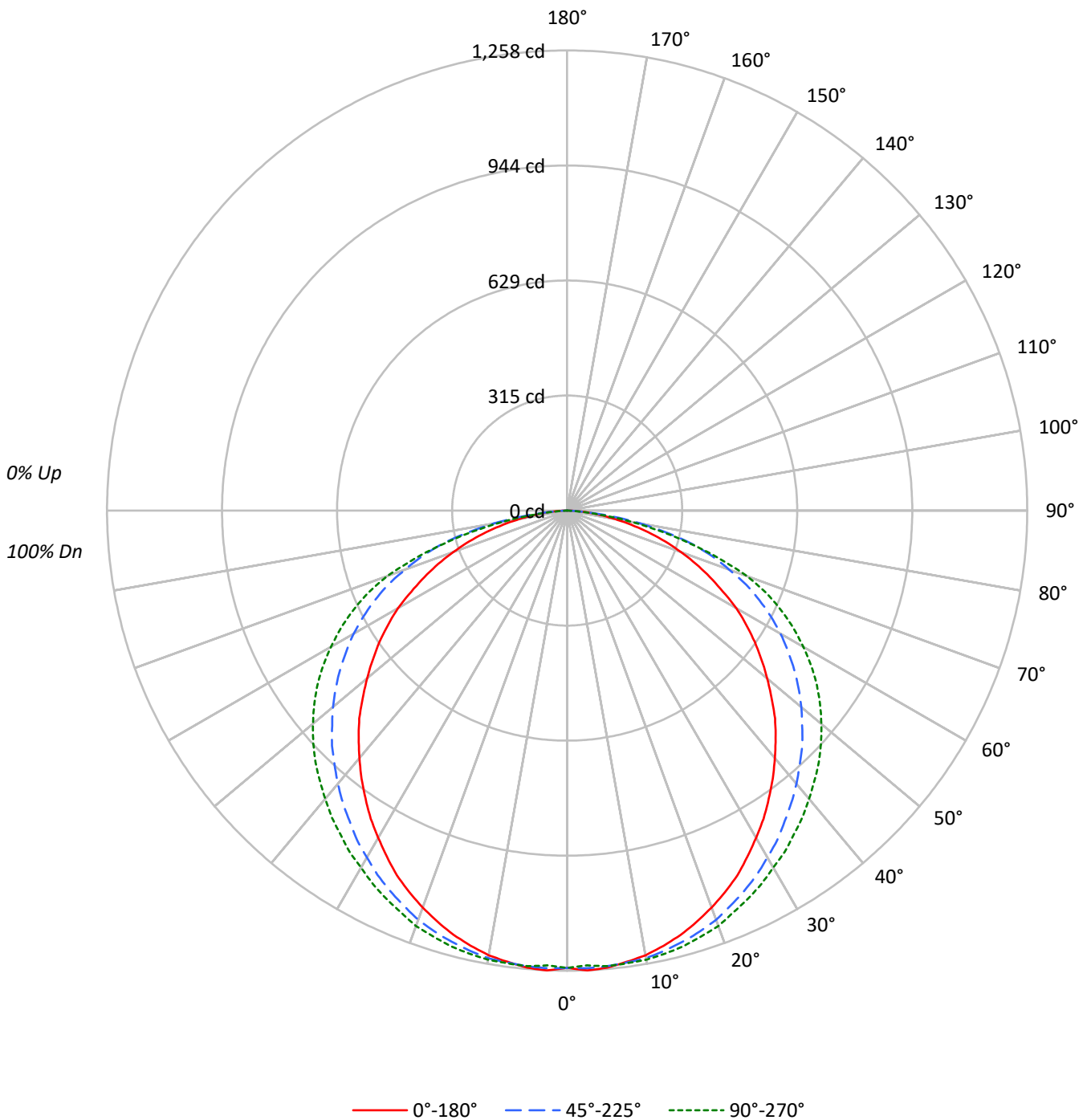
Lumens per Lamp: N/A
Luminaire Lumens: 3956.7 lumens
Efficiency: N/A
Efficacy: 107.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.34 / 1.44
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3365	3365	3365
5°	3388	3378	3378
10°	3373	3395	3406
15°	3344	3400	3433
20°	3306	3409	3461
25°	3268	3405	3476
30°	3210	3402	3501
35°	3158	3407	3551
40°	3103	3426	3615
45°	3059	3460	3704
50°	2989	3498	3799
55°	2938	3555	3911
60°	2876	3627	4014
65°	2742	3695	4114
70°	2604	3703	4111
75°	2384	3691	3629
80°	2039	3152	2813
85°	1599	1785	1047



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.8	3.0
10°-20°	343.3	8.7
20°-30°	524.9	13.3
30°-40°	643.4	16.3
40°-50°	692.0	17.5
50°-60°	665.0	16.8
60°-70°	553.7	14.0
70°-80°	339.8	8.6
80°-90°	75.7	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°	987.0	24.9
0°-40°	1630.5	41.2
0°-60°	2987.5	75.5
0°-90°	3956.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3956.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1250	1250	1250	1250	1250	
5°	1254	1242	1250	1250	1250	119
15°	1200	1196	1220	1228	1232	338
25°	1101	1111	1147	1161	1171	506
35°	961	985	1037	1065	1081	602
45°	804	840	909	951	973	618
55°	626	680	758	810	834	559
65°	431	497	580	628	646	427
75°	229	299	355	353	349	243
85°	52	78	58	40	34	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1250.4	1250.4	1250.4	1250.4	1250.4
2.5°	1258.3	1246.4	1252.3	1250.4	1244.4
5°	1254.3	1242.4	1250.4	1250.4	1250.4
7.5°	1244.4	1234.4	1246.4	1248.4	1248.4
10°	1234.4	1226.4	1242.4	1244.4	1246.4
12.5°	1218.4	1212.5	1232.4	1236.4	1240.4
15°	1200.5	1196.5	1220.4	1228.4	1232.4
17.5°	1178.6	1180.6	1206.5	1216.5	1220.4
20°	1154.6	1160.6	1190.5	1200.5	1208.5
22.5°	1128.7	1136.7	1168.6	1180.6	1188.5
25°	1100.8	1110.8	1146.7	1160.6	1170.6
27.5°	1066.9	1082.8	1122.7	1140.7	1150.6
30°	1033.0	1050.9	1094.8	1116.7	1126.7
32.5°	999.1	1019.0	1068.9	1090.8	1106.8
35°	961.2	985.1	1037.0	1064.9	1080.8
37.5°	923.3	951.2	1007.1	1039.0	1056.9
40°	883.4	913.3	975.2	1011.0	1029.0
42.5°	843.5	877.4	941.3	981.1	1001.1
45°	803.7	839.6	909.3	951.2	973.2
47.5°	757.8	801.7	871.5	919.3	941.3
50°	713.9	761.8	835.6	885.4	907.4
52.5°	670.0	719.9	797.7	849.5	871.5
55°	626.2	680.0	757.8	809.6	833.6
57.5°	580.3	636.1	715.9	769.8	791.7
60°	534.4	592.3	674.0	723.9	745.8
62.5°	480.6	548.4	628.2	678.0	698.0
65°	430.7	496.6	580.3	628.2	646.1
67.5°	380.9	448.7	530.5	574.3	590.3
70°	331.0	398.8	470.6	512.5	522.5
72.5°	281.2	349.0	416.8	440.7	436.7
75°	229.3	299.1	355.0	353.0	349.0
77.5°	179.5	247.3	281.2	267.2	261.2
80°	131.6	197.4	203.4	189.4	181.5
82.5°	89.7	141.6	127.6	111.7	103.7
85°	51.8	77.8	57.8	39.9	33.9
87.5°	21.9	19.9	6.0	6.0	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)