

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: P387991

Luminaire Tested: **22CZ2-44-SQR-UNV-L940-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: P387991
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: 22CZ2-44-SQR-UNV-L940-CD1-SWPD1-U
Description: 2x2 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: 3584.3 lumens
Efficiency: N/A
Efficacy: 83.9 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

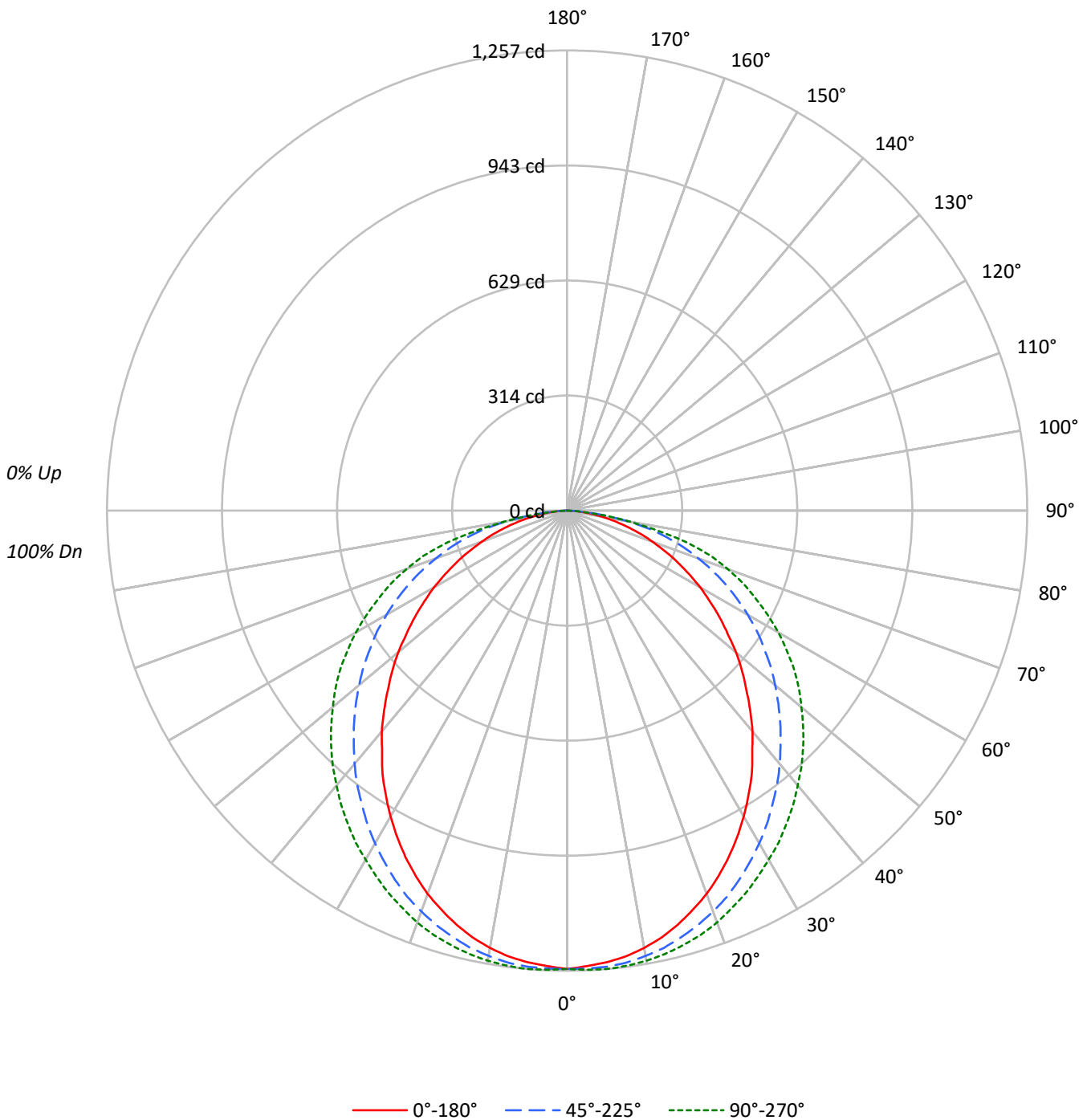
Input Watts (W): 42.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43					43			
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3369	3369	3369
5°	3346	3378	3396
10°	3315	3375	3412
15°	3261	3360	3422
20°	3191	3337	3430
25°	3101	3303	3425
30°	2997	3261	3420
35°	2889	3213	3431
40°	2767	3173	3442
45°	2635	3134	3470
50°	2521	3105	3497
55°	2387	3081	3552
60°	2261	3067	3589
65°	2112	3044	3618
70°	1941	2998	3667
75°	1751	2918	3537
80°	1503	2583	2662
85°	1207	1522	1207



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.7	3.3
10°-20°	339.4	9.5
20°-30°	509.7	14.2
30°-40°	607.9	17.0
40°-50°	628.5	17.5
50°-60°	577.9	16.1
60°-70°	460.0	12.8
70°-80°	281.1	7.8
80°-90°	61.1	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°	967.8	27.0
0°-40°	1575.7	44.0
0°-60°	2782.1	77.6
0°-90°	3584.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3584.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1252	1252	1252	1252	1252	
5°	1238	1242	1250	1256	1257	117
15°	1170	1184	1206	1223	1228	330
25°	1044	1070	1113	1143	1153	480
35°	880	917	978	1029	1044	549
45°	692	742	823	890	912	535
55°	509	565	657	732	757	455
65°	332	388	478	544	568	329
75°	168	218	281	330	340	179
85°	39	48	49	42	39	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1252.1	1252.1	1252.1	1252.1	1252.1
2.5°	1245.3	1247.0	1252.1	1255.5	1255.5
5°	1238.5	1241.9	1250.4	1255.5	1257.2
7.5°	1228.3	1233.4	1245.3	1252.1	1253.8
10°	1213.0	1219.8	1235.1	1245.3	1248.7
12.5°	1194.2	1204.4	1223.2	1236.8	1240.2
15°	1170.4	1184.0	1206.1	1223.2	1228.3
17.5°	1143.2	1160.2	1187.4	1207.9	1214.7
20°	1114.3	1131.3	1165.3	1189.1	1197.6
22.5°	1080.3	1102.4	1141.5	1168.7	1175.5
25°	1044.5	1070.1	1112.6	1143.2	1153.4
27.5°	1005.4	1036.0	1082.0	1119.4	1127.9
30°	964.6	996.9	1049.6	1090.5	1100.7
32.5°	922.0	959.5	1015.6	1061.5	1075.2
35°	879.5	916.9	978.2	1029.2	1044.5
37.5°	830.2	874.4	942.5	995.2	1013.9
40°	787.7	830.2	903.3	961.2	979.9
42.5°	740.0	786.0	862.5	925.5	947.6
45°	692.4	741.7	823.4	889.7	911.8
47.5°	648.2	697.5	782.6	852.3	874.4
50°	602.2	653.3	741.7	813.2	835.3
52.5°	552.9	609.0	700.9	772.3	797.9
55°	508.7	564.8	656.7	731.5	757.0
57.5°	462.7	520.6	615.8	687.3	711.1
60°	420.2	476.3	569.9	639.7	666.9
62.5°	374.3	432.1	524.0	592.0	617.5
65°	331.7	387.9	478.0	544.4	568.2
67.5°	289.2	345.3	430.4	493.3	520.6
70°	246.7	302.8	381.1	442.3	466.1
72.5°	209.2	258.6	333.4	389.6	411.7
75°	168.4	217.8	280.7	330.0	340.2
77.5°	131.0	175.2	228.0	250.1	253.5
80°	97.0	131.0	166.7	171.8	171.8
82.5°	64.6	90.2	103.8	105.5	103.8
85°	39.1	47.6	49.3	42.5	39.1
87.5°	13.6	13.6	8.5	5.1	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)