

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: P387947

Luminaire Tested: **22CZ2-39HE-SQR-UNV-L950-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: P387947
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: 22CZ2-39HE-SQR-UNV-L950-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3422.2 lumens
Efficiency: N/A
Efficacy: 112.9 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

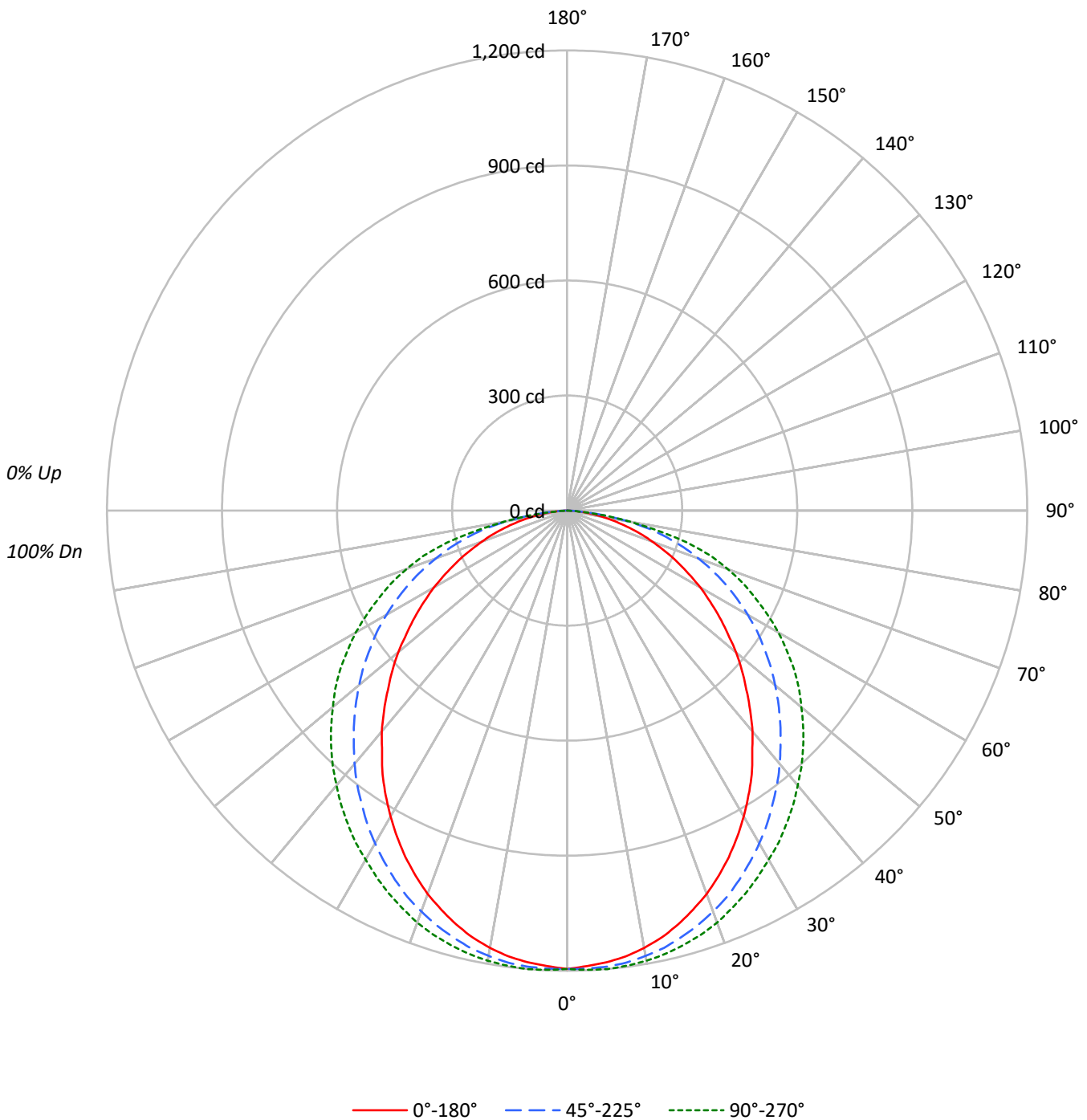
Input Watts (W): 30.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P387947

CATALOG NUMBER: 22CZ2-39HE-SQR-UNV-L950-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P387947

CATALOG NUMBER: 22CZ2-39HE-SQR-UNV-L950-CD1-U

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°	3217	3217	3217
5°	3194	3225	3242
10°	3164	3222	3258
15°	3113	3208	3267
20°	3047	3186	3275
25°	2961	3154	3270
30°	2862	3114	3265
35°	2758	3068	3276
40°	2642	3030	3287
45°	2516	2992	3313
50°	2407	2965	3339
55°	2279	2942	3391
60°	2159	2928	3427
65°	2017	2906	3454
70°	1853	2862	3501
75°	1672	2786	3378
80°	1435	2467	2543
85°	1155	1454	1155



TEST NUMBER: P387947

CATALOG NUMBER: 22CZ2-39HE-SQR-UNV-L950-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.3	3.3
10°-20°	324.0	9.5
20°-30°	486.7	14.2
30°-40°	580.4	17.0
40°-50°	600.1	17.5
50°-60°	551.7	16.1
60°-70°	439.2	12.8
70°-80°	268.4	7.8
80°-90°	58.3	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°	924.0	27.0
0°-40°	1504.5	44.0
0°-60°	2656.3	77.6
0°-90°	3422.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3422.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1196	1196	1196	1196	1196	
5°	1182	1186	1194	1199	1200	112
15°	1118	1130	1152	1168	1173	315
25°	997	1022	1062	1092	1101	459
35°	840	876	934	983	997	524
45°	661	708	786	850	871	511
55°	486	539	627	698	723	434
65°	317	370	456	520	542	314
75°	161	208	268	315	325	171
85°	37	46	47	41	37	43
90°	0	0	0	0	0	



TEST NUMBER: P387947

CATALOG NUMBER: 22CZ2-39HE-SQR-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1195.5	1195.5	1195.5	1195.5	1195.5
2.5°	1189.0	1190.6	1195.5	1198.7	1198.7
5°	1182.5	1185.7	1193.8	1198.7	1200.3
7.5°	1172.7	1177.6	1189.0	1195.5	1197.1
10°	1158.1	1164.6	1179.2	1189.0	1192.2
12.5°	1140.2	1150.0	1167.8	1180.8	1184.1
15°	1117.5	1130.5	1151.6	1167.8	1172.7
17.5°	1091.5	1107.7	1133.7	1153.2	1159.7
20°	1063.9	1080.1	1112.6	1135.4	1143.5
22.5°	1031.4	1052.5	1089.9	1115.9	1122.4
25°	997.3	1021.7	1062.3	1091.5	1101.2
27.5°	959.9	989.2	1033.0	1068.8	1076.9
30°	921.0	951.8	1002.2	1041.2	1050.9
32.5°	880.4	916.1	969.7	1013.5	1026.5
35°	839.7	875.5	934.0	982.7	997.3
37.5°	792.6	834.9	899.8	950.2	968.1
40°	752.0	792.6	862.5	917.7	935.6
42.5°	706.6	750.4	823.5	883.6	904.7
45°	661.1	708.2	786.1	849.5	870.6
47.5°	618.8	665.9	747.2	813.8	834.9
50°	575.0	623.7	708.2	776.4	797.5
52.5°	527.9	581.5	669.2	737.4	761.8
55°	485.7	539.3	627.0	698.4	722.8
57.5°	441.8	497.0	588.0	656.2	678.9
60°	401.2	454.8	544.1	610.7	636.7
62.5°	357.3	412.6	500.3	565.2	589.6
65°	316.7	370.3	456.4	519.8	542.5
67.5°	276.1	329.7	410.9	471.0	497.0
70°	235.5	289.1	363.8	422.3	445.0
72.5°	199.8	246.9	318.4	372.0	393.1
75°	160.8	207.9	268.0	315.1	324.9
77.5°	125.1	167.3	217.7	238.8	242.0
80°	92.6	125.1	159.2	164.1	164.1
82.5°	61.7	86.1	99.1	100.7	99.1
85°	37.4	45.5	47.1	40.6	37.4
87.5°	13.0	13.0	8.1	4.9	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)