

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: P388016

Luminaire Tested: **22CZ2-44HE-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: P388016
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-L940-CD1-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: 3662.2 lumens
Efficiency: N/A
Efficacy: 104.6 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

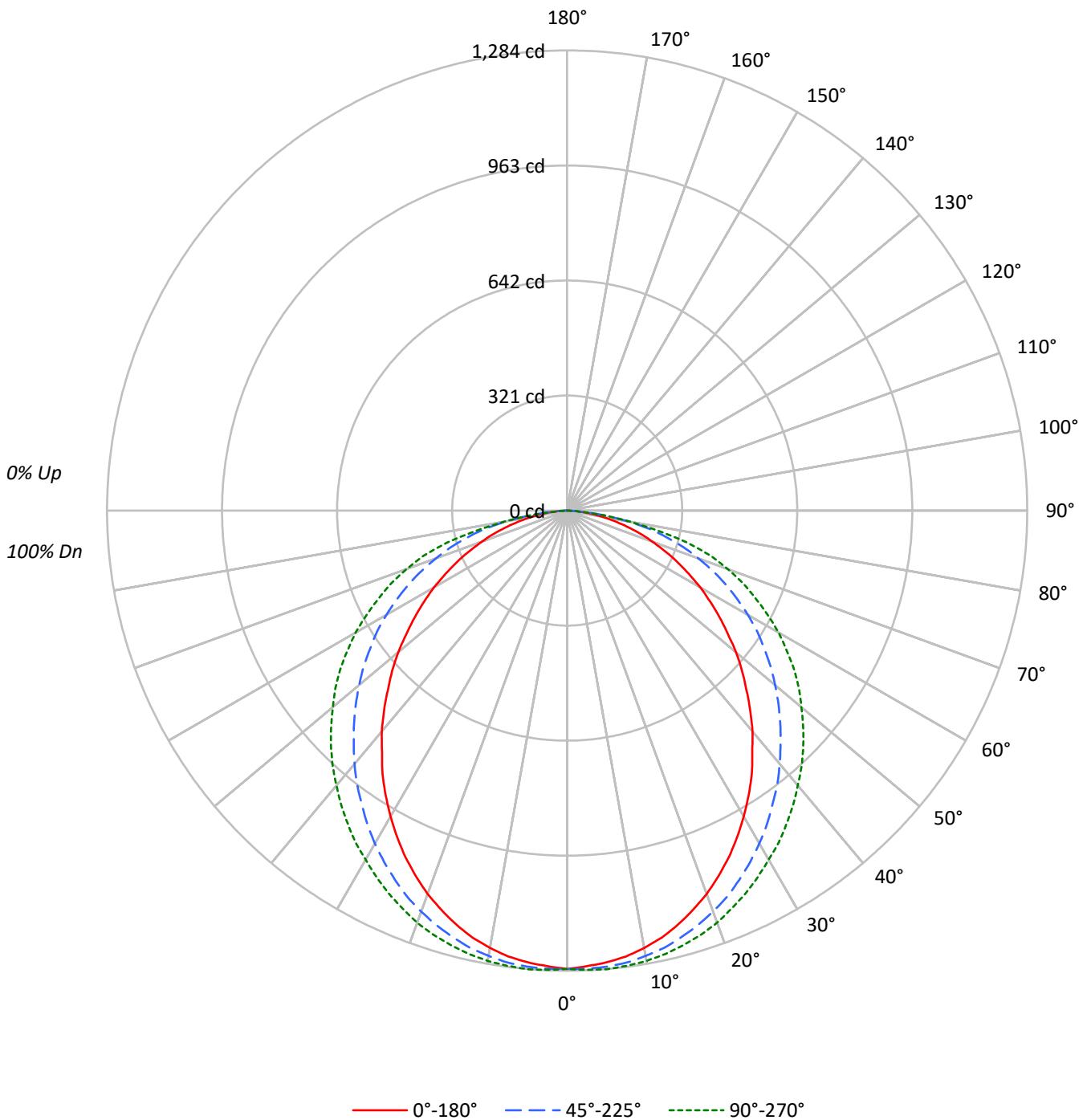
Input Watts (W): 35
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388016

CATALOG NUMBER: 22CZ2-44HE-SQR-UNV-L940-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388016

CATALOG NUMBER: 22CZ2-44HE-SQR-UNV-L940-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°	3443	3443	3443
5°	3418	3451	3470
10°	3386	3448	3486
15°	3332	3433	3496
20°	3260	3409	3504
25°	3169	3375	3499
30°	3062	3333	3494
35°	2952	3283	3506
40°	2827	3242	3517
45°	2692	3202	3546
50°	2576	3172	3573
55°	2438	3148	3629
60°	2310	3134	3667
65°	2158	3110	3696
70°	1983	3064	3747
75°	1789	2982	3614
80°	1536	2639	2721
85°	1235	1556	1235



TEST NUMBER: P388016

CATALOG NUMBER: 22CZ2-44HE-SQR-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.3	3.3
10°-20°	346.8	9.5
20°-30°	520.8	14.2
30°-40°	621.1	17.0
40°-50°	642.2	17.5
50°-60°	590.4	16.1
60°-70°	470.0	12.8
70°-80°	287.2	7.8
80°-90°	62.4	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°	988.8	27.0
0°-40°	1610.0	44.0
0°-60°	2842.6	77.6
0°-90°	3662.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3662.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1279	1279	1279	1279	1279	
5°	1265	1269	1278	1283	1284	120
15°	1196	1210	1232	1250	1255	337
25°	1067	1093	1137	1168	1178	491
35°	899	937	999	1052	1067	561
45°	707	758	841	909	932	547
55°	520	577	671	747	774	465
65°	339	396	488	556	580	336
75°	172	222	287	337	348	183
85°	40	49	50	44	40	46
90°	0	0	0	0	0	



TEST NUMBER: P388016

CATALOG NUMBER: 22CZ2-44HE-SQR-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1279.3	1279.3	1279.3	1279.3	1279.3
2.5°	1272.3	1274.1	1279.3	1282.8	1282.8
5°	1265.4	1268.9	1277.6	1282.8	1284.5
7.5°	1255.0	1260.2	1272.3	1279.3	1281.0
10°	1239.3	1246.3	1261.9	1272.3	1275.8
12.5°	1220.2	1230.6	1249.7	1263.7	1267.1
15°	1195.9	1209.8	1232.4	1249.7	1255.0
17.5°	1168.1	1185.4	1213.2	1234.1	1241.1
20°	1138.5	1155.9	1190.6	1215.0	1223.7
22.5°	1103.7	1126.3	1166.3	1194.1	1201.1
25°	1067.2	1093.3	1136.8	1168.1	1178.5
27.5°	1027.3	1058.5	1105.5	1143.7	1152.4
30°	985.5	1018.6	1072.5	1114.2	1124.6
32.5°	942.1	980.3	1037.7	1084.6	1098.5
35°	898.6	936.9	999.4	1051.6	1067.2
37.5°	848.2	893.4	962.9	1016.8	1036.0
40°	804.8	848.2	923.0	982.1	1001.2
42.5°	756.1	803.0	881.3	945.6	968.2
45°	707.4	757.8	841.3	909.1	931.7
47.5°	662.2	712.7	799.6	870.8	893.4
50°	615.3	667.5	757.8	830.8	853.4
52.5°	564.9	622.3	716.1	789.1	815.2
55°	519.7	577.1	670.9	747.4	773.5
57.5°	472.8	531.9	629.2	702.2	726.6
60°	429.3	486.7	582.3	653.6	681.4
62.5°	382.4	441.5	535.4	604.9	631.0
65°	338.9	396.3	488.4	556.2	580.5
67.5°	295.5	352.8	439.8	504.1	531.9
70°	252.0	309.4	389.4	451.9	476.3
72.5°	213.8	264.2	340.7	398.0	420.6
75°	172.1	222.5	286.8	337.2	347.6
77.5°	133.8	179.0	232.9	255.5	259.0
80°	99.1	133.8	170.3	175.6	175.6
82.5°	66.1	92.1	106.0	107.8	106.0
85°	40.0	48.7	50.4	43.5	40.0
87.5°	13.9	13.9	8.7	5.2	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)