

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: P388019

Luminaire Tested: **22CZ2-44HE-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: P388019
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-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: 3887.2 lumens
Efficiency: N/A
Efficacy: 111.1 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

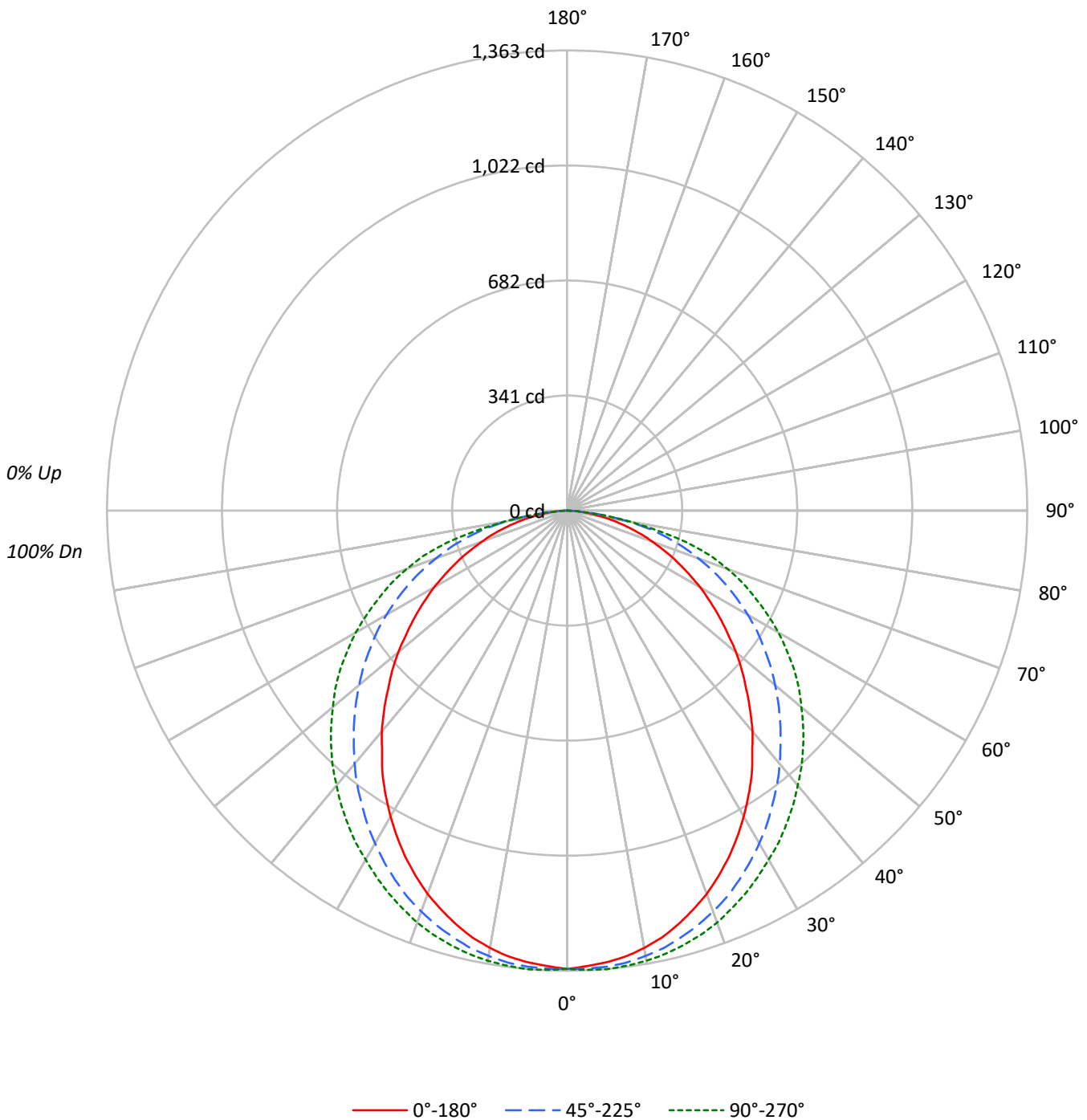
Input Watts (W): 35
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3654	3654	3654
5°	3628	3663	3683
10°	3595	3660	3700
15°	3536	3644	3711
20°	3461	3619	3720
25°	3363	3583	3714
30°	3251	3537	3709
35°	3133	3485	3721
40°	3001	3442	3733
45°	2858	3398	3763
50°	2734	3368	3792
55°	2588	3341	3852
60°	2453	3327	3892
65°	2291	3301	3924
70°	2105	3252	3977
75°	1900	3165	3837
80°	1630	2802	2887
85°	1309	1652	1309



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.7	3.3
10°-20°	368.1	9.5
20°-30°	552.8	14.2
30°-40°	659.3	17.0
40°-50°	681.7	17.5
50°-60°	626.7	16.1
60°-70°	498.9	12.8
70°-80°	304.8	7.8
80°-90°	66.2	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°	1049.6	27.0
0°-40°	1708.9	44.0
0°-60°	3017.2	77.6
0°-90°	3887.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3887.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1358	1358	1358	1358	1358	
5°	1343	1347	1356	1362	1363	127
15°	1269	1284	1308	1326	1332	357
25°	1133	1160	1207	1240	1251	521
35°	954	994	1061	1116	1133	595
45°	751	804	893	965	989	581
55°	552	612	712	793	821	493
65°	360	421	518	590	616	356
75°	183	236	304	358	369	195
85°	42	52	54	46	42	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1357.9	1357.9	1357.9	1357.9	1357.9
2.5°	1350.5	1352.4	1357.9	1361.6	1361.6
5°	1343.1	1346.8	1356.0	1361.6	1363.4
7.5°	1332.1	1337.6	1350.5	1357.9	1359.7
10°	1315.5	1322.8	1339.4	1350.5	1354.2
12.5°	1295.2	1306.2	1326.5	1341.3	1345.0
15°	1269.3	1284.1	1308.1	1326.5	1332.1
17.5°	1239.8	1258.3	1287.8	1309.9	1317.3
20°	1208.5	1226.9	1263.8	1289.6	1298.9
22.5°	1171.6	1195.5	1238.0	1267.5	1274.9
25°	1132.8	1160.5	1206.6	1239.8	1250.9
27.5°	1090.4	1123.6	1173.4	1214.0	1223.2
30°	1046.1	1081.1	1138.3	1182.6	1193.7
32.5°	1000.0	1040.6	1101.4	1151.3	1166.0
35°	953.8	994.4	1060.9	1116.2	1132.8
37.5°	900.3	948.3	1022.1	1079.3	1099.6
40°	854.2	900.3	979.7	1042.4	1062.7
42.5°	802.6	852.4	935.4	1003.7	1027.6
45°	750.9	804.4	893.0	964.9	988.9
47.5°	702.9	756.4	848.7	924.3	948.3
50°	653.1	708.5	804.4	881.9	905.9
52.5°	599.6	660.5	760.1	837.6	865.3
55°	551.6	612.5	712.2	793.3	821.0
57.5°	501.8	564.6	667.9	745.4	771.2
60°	455.7	516.6	618.1	693.7	723.2
62.5°	405.9	468.6	568.2	642.0	669.7
65°	359.8	420.7	518.4	590.4	616.2
67.5°	313.6	374.5	466.8	535.0	564.6
70°	267.5	328.4	413.3	479.7	505.5
72.5°	226.9	280.4	361.6	422.5	446.5
75°	182.7	236.2	304.4	357.9	369.0
77.5°	142.1	190.0	247.2	271.2	274.9
80°	105.2	142.1	180.8	186.3	186.3
82.5°	70.1	97.8	112.5	114.4	112.5
85°	42.4	51.7	53.5	46.1	42.4
87.5°	14.8	14.8	9.2	5.5	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)