

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: P277341

Luminaire Tested: **22CZ2-39HE-S-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277341
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39HE-S-UNV-L83050-W2A1-U-3500K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 80 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3871.0 lumens
Efficiency: N/A
Efficacy: 128.5 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

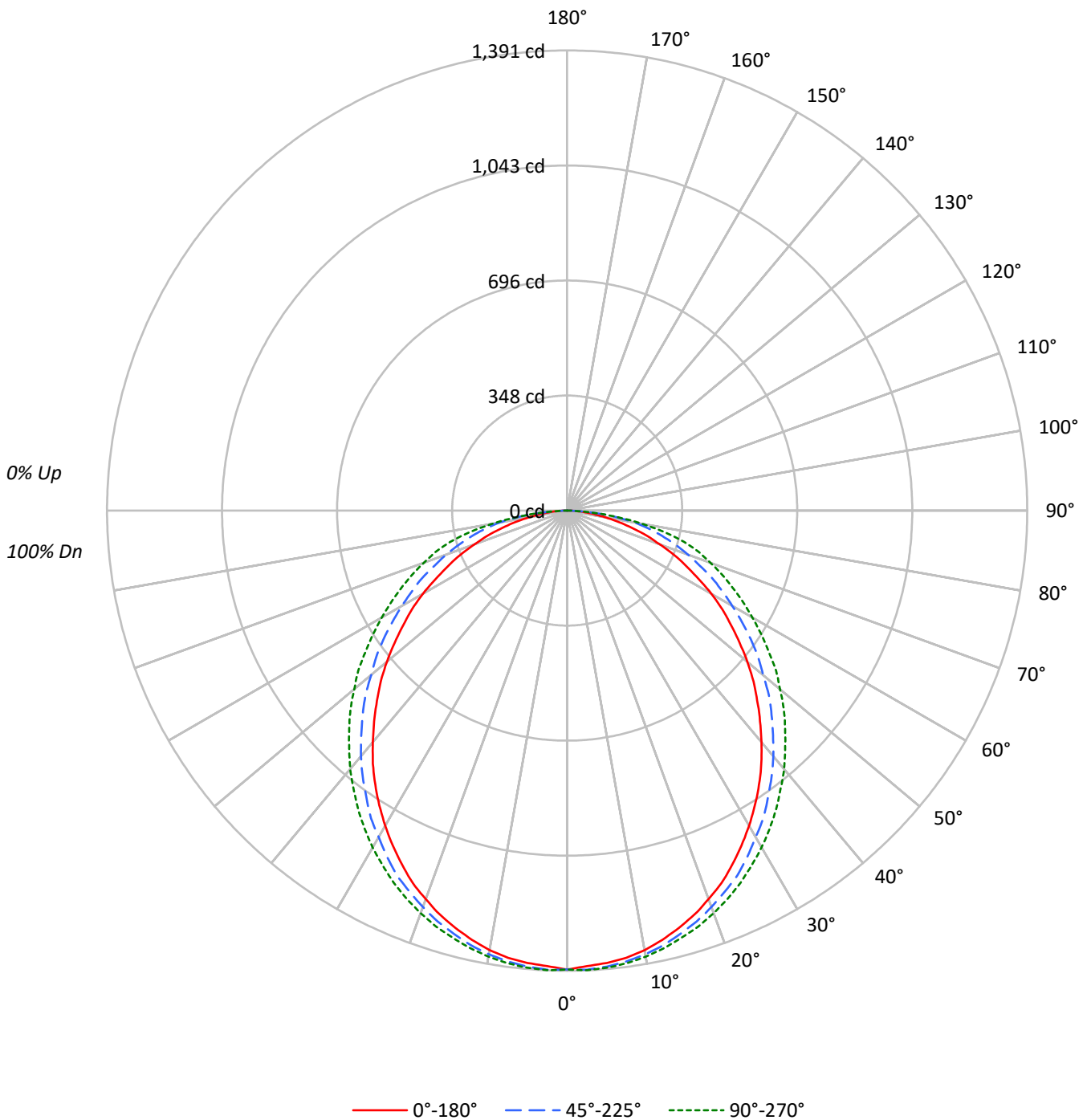
Input Watts (W): 30.132
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	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	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3733	3733	3733
5°	3708	3737	3747
10°	3687	3721	3741
15°	3638	3688	3723
20°	3579	3651	3708
25°	3507	3614	3684
30°	3418	3541	3654
35°	3323	3477	3619
40°	3210	3407	3585
45°	3093	3327	3547
50°	2979	3236	3516
55°	2839	3178	3491
60°	2712	3101	3480
65°	2530	3082	3519
70°	2330	3055	3624
75°	2103	3098	3812
80°	1819	3191	3583
85°	1507	2677	2677



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.2	3.4
10°-20°	373.3	9.6
20°-30°	558.6	14.4
30°-40°	661.5	17.1
40°-50°	674.1	17.4
50°-60°	604.2	15.6
60°-70°	473.0	12.2
70°-80°	305.0	7.9
80°-90°	90.1	2.3
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°	1063.0	27.5
0°-40°	1724.5	44.5
0°-60°	3002.8	77.6
0°-90°	3871.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3871.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1387	1387	1387	1387	1387	
5°	1373	1376	1384	1385	1387	130
15°	1306	1313	1324	1335	1336	368
25°	1181	1192	1217	1234	1241	544
35°	1011	1024	1058	1091	1102	632
45°	813	831	874	919	932	628
55°	605	625	677	724	744	542
65°	397	421	484	531	553	395
75°	202	233	298	349	367	217
85°	49	67	87	87	87	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1387.1	1387.1	1387.1	1387.1	1387.1
2.5°	1378.1	1381.7	1388.9	1390.7	1390.7
5°	1372.7	1376.3	1383.5	1385.3	1387.1
7.5°	1363.6	1365.4	1374.5	1378.1	1379.9
10°	1349.2	1352.8	1361.8	1367.2	1369.0
12.5°	1329.3	1334.7	1345.6	1352.8	1354.6
15°	1305.8	1313.0	1323.9	1334.7	1336.5
17.5°	1280.5	1287.8	1302.2	1314.9	1318.5
20°	1249.8	1258.9	1275.1	1289.6	1295.0
22.5°	1219.1	1226.4	1246.2	1264.3	1269.7
25°	1181.2	1192.0	1217.3	1233.6	1240.8
27.5°	1141.5	1154.1	1179.4	1201.1	1208.3
30°	1099.9	1112.6	1139.7	1166.8	1175.8
32.5°	1056.6	1071.0	1103.5	1130.6	1139.7
35°	1011.4	1024.1	1058.4	1090.9	1101.7
37.5°	964.5	975.3	1015.0	1049.4	1060.2
40°	913.9	928.3	969.9	1009.6	1020.5
42.5°	863.3	879.6	921.1	964.5	975.3
45°	812.8	830.8	874.2	919.3	932.0
47.5°	764.0	778.4	827.2	870.5	888.6
50°	711.6	726.1	773.0	821.8	839.8
52.5°	657.4	677.3	727.9	774.8	796.5
55°	605.1	624.9	677.3	724.3	744.1
57.5°	556.3	572.5	626.7	675.5	695.4
60°	503.9	518.4	576.2	628.5	646.6
62.5°	447.9	469.6	529.2	578.0	599.6
65°	397.3	420.8	484.0	531.0	552.7
67.5°	350.4	372.1	433.5	484.0	507.5
70°	296.2	325.1	388.3	438.9	460.6
72.5°	252.9	278.1	343.2	393.7	417.2
75°	202.3	233.0	298.0	348.6	366.6
77.5°	160.7	191.4	252.9	292.6	301.6
80°	117.4	148.1	205.9	225.8	231.2
82.5°	79.5	108.4	148.1	153.5	155.3
85°	48.8	66.8	86.7	86.7	86.7
87.5°	23.5	27.1	30.7	28.9	28.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)