

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: P272037

Luminaire Tested: **22CZ2-39HE-S-UNV-L930-CD1-U**

Issue Date: 3/3/2020

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: P272037
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-L930-CD1-U
Description: 2'X2' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (196) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

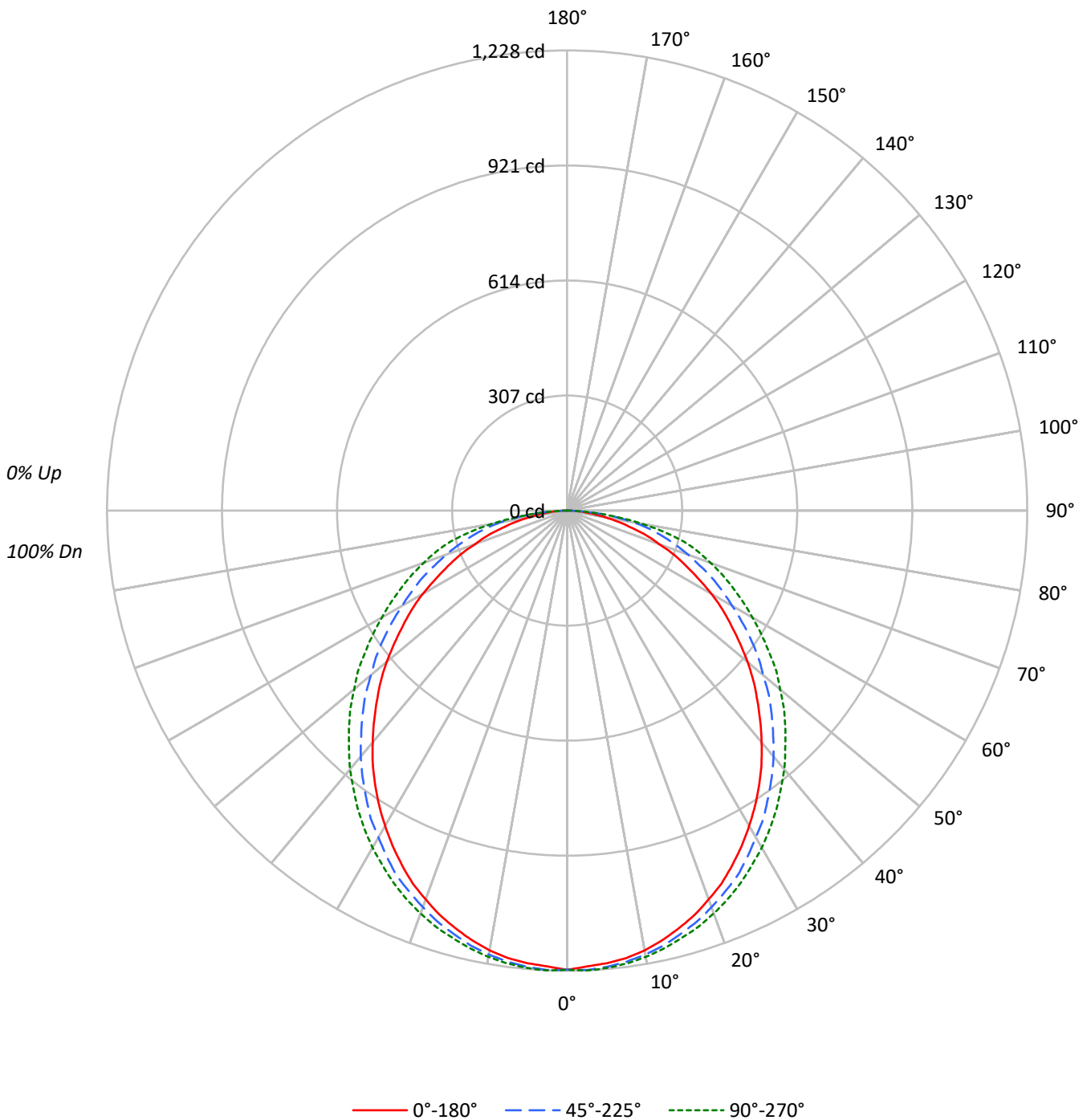
Lumens per Lamp: N/A
Luminaire Lumens: 3419.6 lumens
Efficiency: N/A
Efficacy: 112.9 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 30.3
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



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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°	3297	3297	3297
5°	3276	3301	3310
10°	3257	3287	3305
15°	3214	3258	3289
20°	3162	3226	3276
25°	3098	3193	3255
30°	3019	3128	3228
35°	2935	3072	3197
40°	2836	3010	3167
45°	2732	2939	3133
50°	2632	2859	3106
55°	2508	2807	3084
60°	2396	2739	3074
65°	2235	2723	3109
70°	2059	2699	3201
75°	1858	2738	3368
80°	1607	2819	3164
85°	1331	2365	2365



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.9	3.4
10°-20°	329.8	9.6
20°-30°	493.4	14.4
30°-40°	584.3	17.1
40°-50°	595.5	17.4
50°-60°	533.7	15.6
60°-70°	417.9	12.2
70°-80°	269.5	7.9
80°-90°	79.6	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°	939.1	27.5
0°-40°	1523.4	44.5
0°-60°	2652.7	77.6
0°-90°	3419.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3419.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1225	1225	1225	1225	1225	
5°	1213	1216	1222	1224	1225	115
15°	1154	1160	1170	1179	1181	325
25°	1044	1053	1075	1090	1096	480
35°	894	905	935	964	973	558
45°	718	734	772	812	823	554
55°	534	552	598	640	657	479
65°	351	372	428	469	488	349
75°	179	206	263	308	324	192
85°	43	59	77	77	77	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1225.3	1225.3	1225.3	1225.3	1225.3
2.5°	1217.4	1220.6	1226.9	1228.5	1228.5
5°	1212.6	1215.8	1222.2	1223.8	1225.3
7.5°	1204.6	1206.2	1214.2	1217.4	1219.0
10°	1191.8	1195.0	1203.0	1207.8	1209.4
12.5°	1174.3	1179.1	1188.7	1195.0	1196.6
15°	1153.6	1159.9	1169.5	1179.1	1180.7
17.5°	1131.2	1137.6	1150.4	1161.5	1164.7
20°	1104.1	1112.1	1126.4	1139.2	1144.0
22.5°	1077.0	1083.3	1100.9	1116.9	1121.6
25°	1043.5	1053.0	1075.4	1089.7	1096.1
27.5°	1008.4	1019.5	1041.9	1061.0	1067.4
30°	971.7	982.8	1006.8	1030.7	1038.7
32.5°	933.4	946.1	974.9	998.8	1006.8
35°	893.5	904.7	935.0	963.7	973.3
37.5°	852.0	861.6	896.7	927.0	936.6
40°	807.3	820.1	856.8	891.9	901.5
42.5°	762.7	777.0	813.7	852.0	861.6
45°	718.0	733.9	772.2	812.1	823.3
47.5°	674.9	687.7	730.7	769.0	785.0
50°	628.6	641.4	682.9	726.0	741.9
52.5°	580.8	598.3	643.0	684.5	703.6
55°	534.5	552.0	598.3	639.8	657.3
57.5°	491.4	505.8	553.6	596.7	614.3
60°	445.1	457.9	509.0	555.2	571.2
62.5°	395.7	414.8	467.5	510.6	529.7
65°	351.0	371.8	427.6	469.1	488.2
67.5°	309.5	328.7	382.9	427.6	448.3
70°	261.7	287.2	343.0	387.7	406.9
72.5°	223.4	245.7	303.1	347.8	368.6
75°	178.7	205.8	263.3	307.9	323.9
77.5°	142.0	169.1	223.4	258.5	266.4
80°	103.7	130.8	181.9	199.4	204.2
82.5°	70.2	95.7	130.8	135.6	137.2
85°	43.1	59.0	76.6	76.6	76.6
87.5°	20.7	23.9	27.1	25.5	25.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)