

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: P277473

Luminaire Tested: **22CZ2-39HE-S-UNV-L92765-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277473
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-L92765-W2A1-U-4000K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3419.0 lumens
Efficiency: N/A
Efficacy: 112.1 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

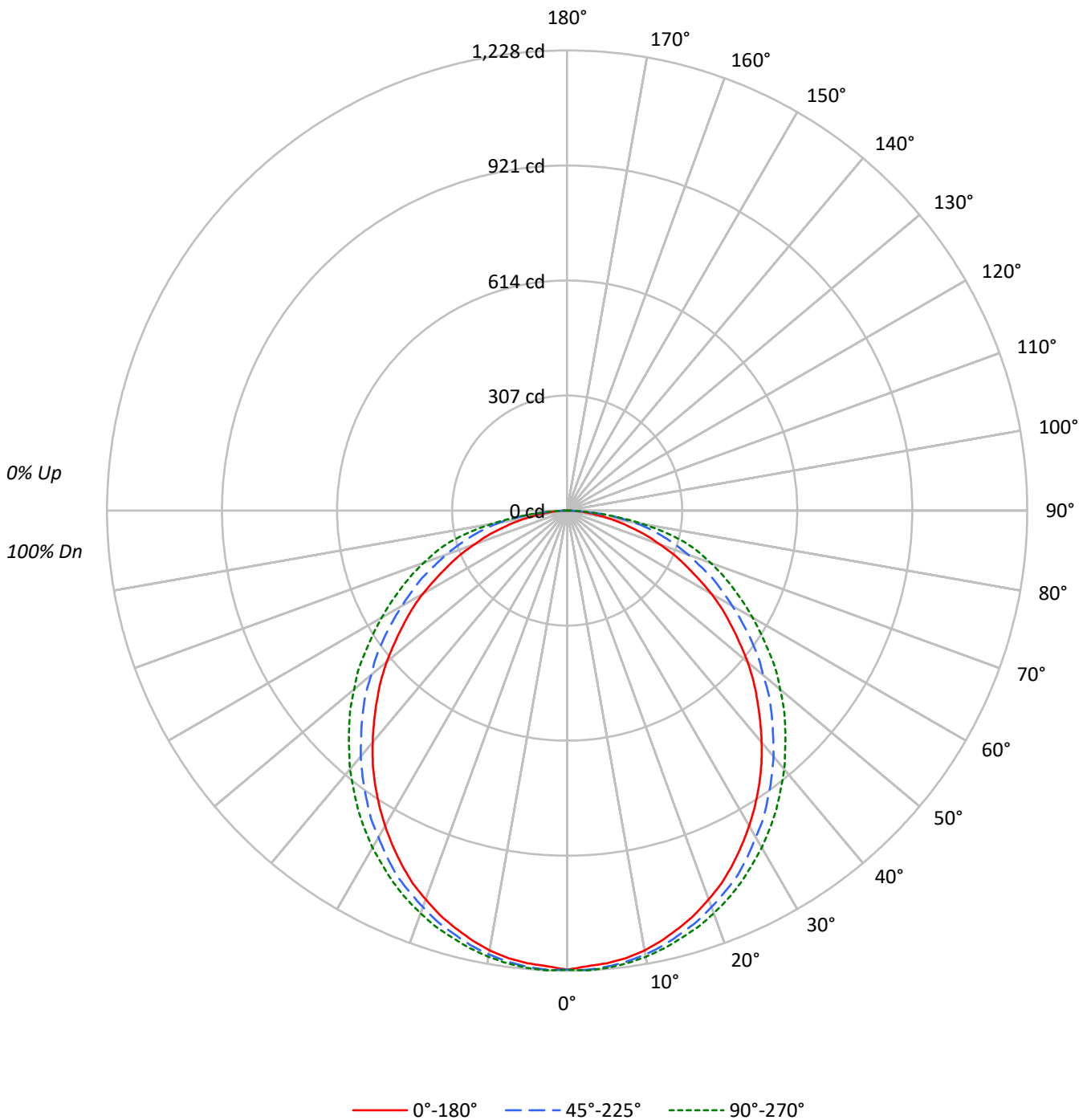
Input Watts (W): 30.504
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3297	3297	3297
5°	3275	3301	3309
10°	3256	3287	3304
15°	3213	3258	3289
20°	3161	3225	3275
25°	3098	3192	3254
30°	3019	3128	3227
35°	2935	3071	3197
40°	2836	3009	3166
45°	2732	2938	3132
50°	2631	2858	3105
55°	2507	2807	3083
60°	2396	2739	3074
65°	2234	2722	3108
70°	2058	2699	3201
75°	1858	2737	3367
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°	329.7	9.6
20°-30°	493.3	14.4
30°-40°	584.2	17.1
40°-50°	595.4	17.4
50°-60°	533.6	15.6
60°-70°	417.8	12.2
70°-80°	269.4	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°	938.9	27.5
0°-40°	1523.1	44.5
0°-60°	2652.2	77.6
0°-90°	3419.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3419.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1225	1225	1225	1225	1225	
5°	1212	1216	1222	1224	1225	115
15°	1153	1160	1169	1179	1180	325
25°	1043	1053	1075	1090	1096	480
35°	893	904	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°	1225.1	1225.1	1225.1	1225.1	1225.1
2.5°	1217.2	1220.3	1226.7	1228.3	1228.3
5°	1212.4	1215.6	1221.9	1223.5	1225.1
7.5°	1204.4	1206.0	1214.0	1217.2	1218.8
10°	1191.6	1194.8	1202.8	1207.6	1209.2
12.5°	1174.1	1178.9	1188.4	1194.8	1196.4
15°	1153.3	1159.7	1169.3	1178.9	1180.5
17.5°	1131.0	1137.4	1150.2	1161.3	1164.5
20°	1103.9	1111.9	1126.2	1139.0	1143.8
22.5°	1076.8	1083.2	1100.7	1116.7	1121.4
25°	1043.3	1052.8	1075.2	1089.5	1095.9
27.5°	1008.2	1019.4	1041.7	1060.8	1067.2
30°	971.5	982.7	1006.6	1030.5	1038.5
32.5°	933.2	946.0	974.7	998.6	1006.6
35°	893.3	904.5	934.8	963.5	973.1
37.5°	851.9	861.4	896.5	926.8	936.4
40°	807.2	819.9	856.6	891.7	901.3
42.5°	762.5	776.9	813.6	851.9	861.4
45°	717.9	733.8	772.1	812.0	823.1
47.5°	674.8	687.5	730.6	768.9	784.9
50°	628.5	641.3	682.8	725.8	741.8
52.5°	580.7	598.2	642.9	684.4	703.5
55°	534.4	551.9	598.2	639.7	657.2
57.5°	491.3	505.7	553.5	596.6	614.2
60°	445.1	457.8	508.9	555.1	571.1
62.5°	395.6	414.8	467.4	510.5	529.6
65°	350.9	371.7	427.5	469.0	488.1
67.5°	309.5	328.6	382.9	427.5	448.3
70°	261.6	287.1	343.0	387.6	406.8
72.5°	223.3	245.7	303.1	347.8	368.5
75°	178.7	205.8	263.2	307.9	323.8
77.5°	142.0	169.1	223.3	258.4	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)