

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: P277373

Luminaire Tested: **22CZ2-39HE-S-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277373
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-L93050-W2A1-U-4500K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3615.0 lumens
Efficiency: N/A
Efficacy: 115.1 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

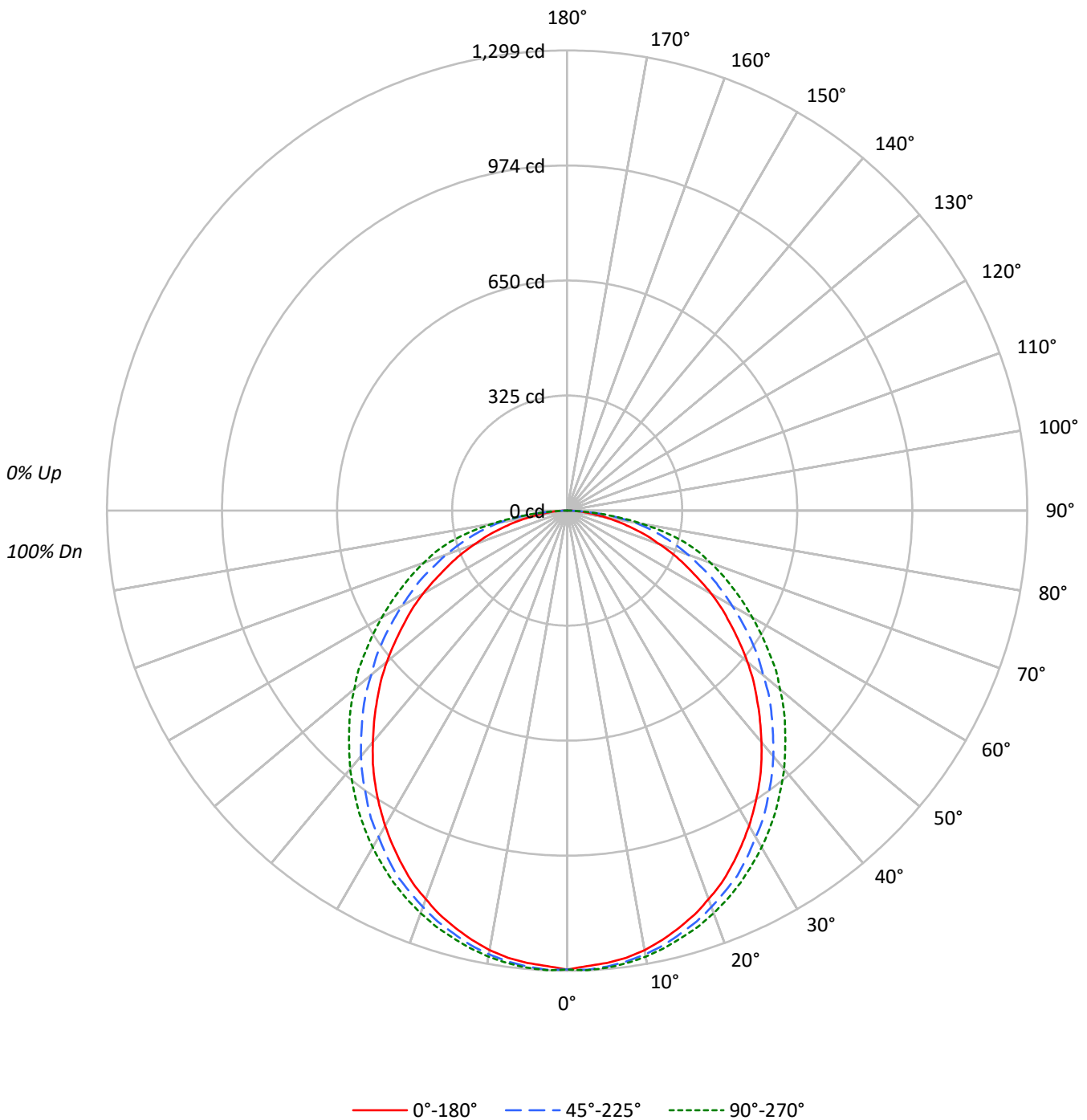
Input Watts (W): 31.397544
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49					49			
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27					27			
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3486	3486	3486
5°	3463	3490	3499
10°	3443	3475	3493
15°	3397	3444	3477
20°	3342	3410	3463
25°	3275	3375	3440
30°	3192	3307	3412
35°	3103	3247	3380
40°	2998	3182	3348
45°	2888	3107	3312
50°	2782	3022	3283
55°	2651	2967	3260
60°	2533	2895	3250
65°	2363	2878	3286
70°	2176	2853	3384
75°	1964	2894	3560
80°	1698	2980	3346
85°	1405	2501	2501



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.5	3.4
10°-20°	348.6	9.6
20°-30°	521.6	14.4
30°-40°	617.7	17.1
40°-50°	629.5	17.4
50°-60°	564.2	15.6
60°-70°	441.8	12.2
70°-80°	284.8	7.9
80°-90°	84.2	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°	992.7	27.5
0°-40°	1610.5	44.5
0°-60°	2804.3	77.6
0°-90°	3615.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3615.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1295	1295	1295	1295	1295	
5°	1282	1285	1292	1294	1295	122
15°	1220	1226	1236	1246	1248	344
25°	1103	1113	1137	1152	1159	508
35°	944	956	988	1019	1029	590
45°	759	776	816	858	870	586
55°	565	584	632	676	695	507
65°	371	393	452	496	516	369
75°	189	218	278	326	342	203
85°	46	62	81	81	81	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1295.4	1295.4	1295.4	1295.4	1295.4
2.5°	1286.9	1290.3	1297.1	1298.7	1298.7
5°	1281.9	1285.2	1292.0	1293.7	1295.4
7.5°	1273.4	1275.1	1283.6	1286.9	1288.6
10°	1259.9	1263.3	1271.8	1276.8	1278.5
12.5°	1241.4	1246.5	1256.6	1263.3	1265.0
15°	1219.5	1226.2	1236.3	1246.5	1248.1
17.5°	1195.9	1202.6	1216.1	1227.9	1231.3
20°	1167.2	1175.6	1190.8	1204.3	1209.3
22.5°	1138.5	1145.3	1163.8	1180.7	1185.7
25°	1103.1	1113.2	1136.8	1152.0	1158.7
27.5°	1066.0	1077.8	1101.4	1121.6	1128.4
30°	1027.2	1039.0	1064.3	1089.6	1098.0
32.5°	986.7	1000.2	1030.6	1055.9	1064.3
35°	944.5	956.3	988.4	1018.8	1028.9
37.5°	900.7	910.8	947.9	980.0	990.1
40°	853.5	867.0	905.7	942.9	953.0
42.5°	806.2	821.4	860.2	900.7	910.8
45°	759.0	775.9	816.4	858.5	870.3
47.5°	713.5	727.0	772.5	813.0	829.8
50°	664.6	678.0	721.9	767.4	784.3
52.5°	614.0	632.5	679.7	723.6	743.8
55°	565.0	583.6	632.5	676.4	694.9
57.5°	519.5	534.7	585.3	630.8	649.4
60°	470.6	484.1	538.0	587.0	603.8
62.5°	418.3	438.5	494.2	539.7	560.0
65°	371.1	393.0	452.0	495.9	516.1
67.5°	327.2	347.5	404.8	452.0	474.0
70°	276.6	303.6	362.6	409.9	430.1
72.5°	236.1	259.7	320.5	367.7	389.6
75°	188.9	217.6	278.3	325.5	342.4
77.5°	150.1	178.8	236.1	273.2	281.7
80°	109.6	138.3	192.3	210.8	215.9
82.5°	74.2	101.2	138.3	143.4	145.1
85°	45.5	62.4	81.0	81.0	81.0
87.5°	21.9	25.3	28.7	27.0	27.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)