

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: P277477

Luminaire Tested: **22CZ2-39HE-S-UNV-L92765-W2A1-U-5700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277477
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-5700K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 5700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3649.0 lumens
Efficiency: N/A
Efficacy: 117.5 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

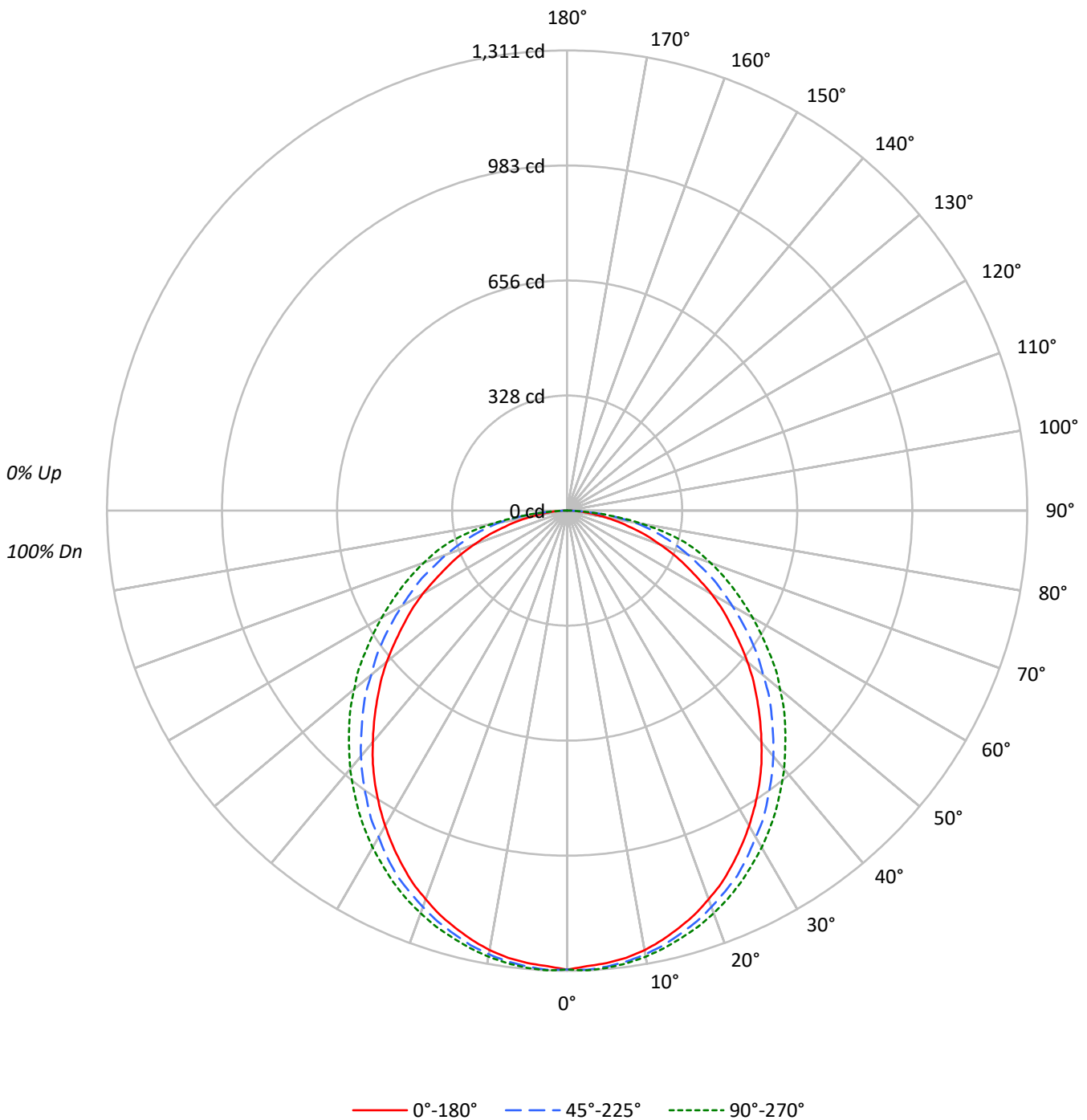
Input Watts (W): 31.062
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3519	3519	3519
5°	3495	3523	3532
10°	3475	3508	3526
15°	3429	3477	3510
20°	3374	3442	3496
25°	3306	3407	3473
30°	3222	3338	3444
35°	3132	3278	3412
40°	3026	3212	3379
45°	2915	3136	3343
50°	2808	3051	3314
55°	2676	2996	3291
60°	2556	2923	3280
65°	2385	2905	3317
70°	2197	2880	3415
75°	1983	2921	3593
80°	1715	3008	3377
85°	1420	2523	2523



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.6	3.4
10°-20°	351.9	9.6
20°-30°	526.5	14.4
30°-40°	623.5	17.1
40°-50°	635.5	17.4
50°-60°	569.6	15.6
60°-70°	445.9	12.2
70°-80°	287.5	7.9
80°-90°	84.9	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°	1002.1	27.5
0°-40°	1625.6	44.5
0°-60°	2830.6	77.6
0°-90°	3649.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3649.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1308	1308	1308	1308	1308	
5°	1294	1297	1304	1306	1308	123
15°	1231	1238	1248	1258	1260	347
25°	1114	1124	1148	1163	1170	513
35°	953	965	998	1028	1038	596
45°	766	783	824	867	878	592
55°	570	589	638	683	701	511
65°	375	397	456	500	521	372
75°	191	220	281	329	346	204
85°	46	63	82	82	82	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1307.6	1307.6	1307.6	1307.6	1307.6
2.5°	1299.0	1302.4	1309.3	1311.0	1311.0
5°	1293.9	1297.3	1304.1	1305.8	1307.6
7.5°	1285.4	1287.1	1295.6	1299.0	1300.7
10°	1271.8	1275.2	1283.7	1288.8	1290.5
12.5°	1253.1	1258.2	1268.4	1275.2	1276.9
15°	1230.9	1237.7	1248.0	1258.2	1259.9
17.5°	1207.1	1213.9	1227.5	1239.4	1242.9
20°	1178.2	1186.7	1202.0	1215.6	1220.7
22.5°	1149.2	1156.0	1174.8	1191.8	1196.9
25°	1113.5	1123.7	1147.5	1162.8	1169.6
27.5°	1076.0	1087.9	1111.8	1132.2	1139.0
30°	1036.8	1048.8	1074.3	1099.8	1108.4
32.5°	996.0	1009.6	1040.3	1065.8	1074.3
35°	953.4	965.3	997.7	1028.3	1038.5
37.5°	909.2	919.4	956.8	989.2	999.4
40°	861.5	875.1	914.3	951.7	961.9
42.5°	813.8	829.1	868.3	909.2	919.4
45°	766.1	783.2	824.0	866.6	878.5
47.5°	720.2	733.8	779.8	820.6	837.6
50°	670.8	684.4	728.7	774.7	791.7
52.5°	619.7	638.5	686.1	730.4	750.8
55°	570.4	589.1	638.5	682.7	701.4
57.5°	524.4	539.7	590.8	636.7	655.5
60°	475.0	488.6	543.1	592.5	609.5
62.5°	422.2	442.7	498.8	544.8	565.2
65°	374.6	396.7	456.3	500.5	521.0
67.5°	330.3	350.7	408.6	456.3	478.4
70°	279.2	306.5	366.0	413.7	434.1
72.5°	238.4	262.2	323.5	371.2	393.3
75°	190.7	219.6	280.9	328.6	345.6
77.5°	151.5	180.5	238.4	275.8	284.3
80°	110.7	139.6	194.1	212.8	217.9
82.5°	74.9	102.2	139.6	144.7	146.4
85°	46.0	63.0	81.7	81.7	81.7
87.5°	22.1	25.5	28.9	27.2	27.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)