

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: P277478

Luminaire Tested: **22CZ2-39HE-S-UNV-L92765-W2A1-U-6500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277478
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-6500K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 6500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3673.0 lumens
Efficiency: N/A
Efficacy: 116.5 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

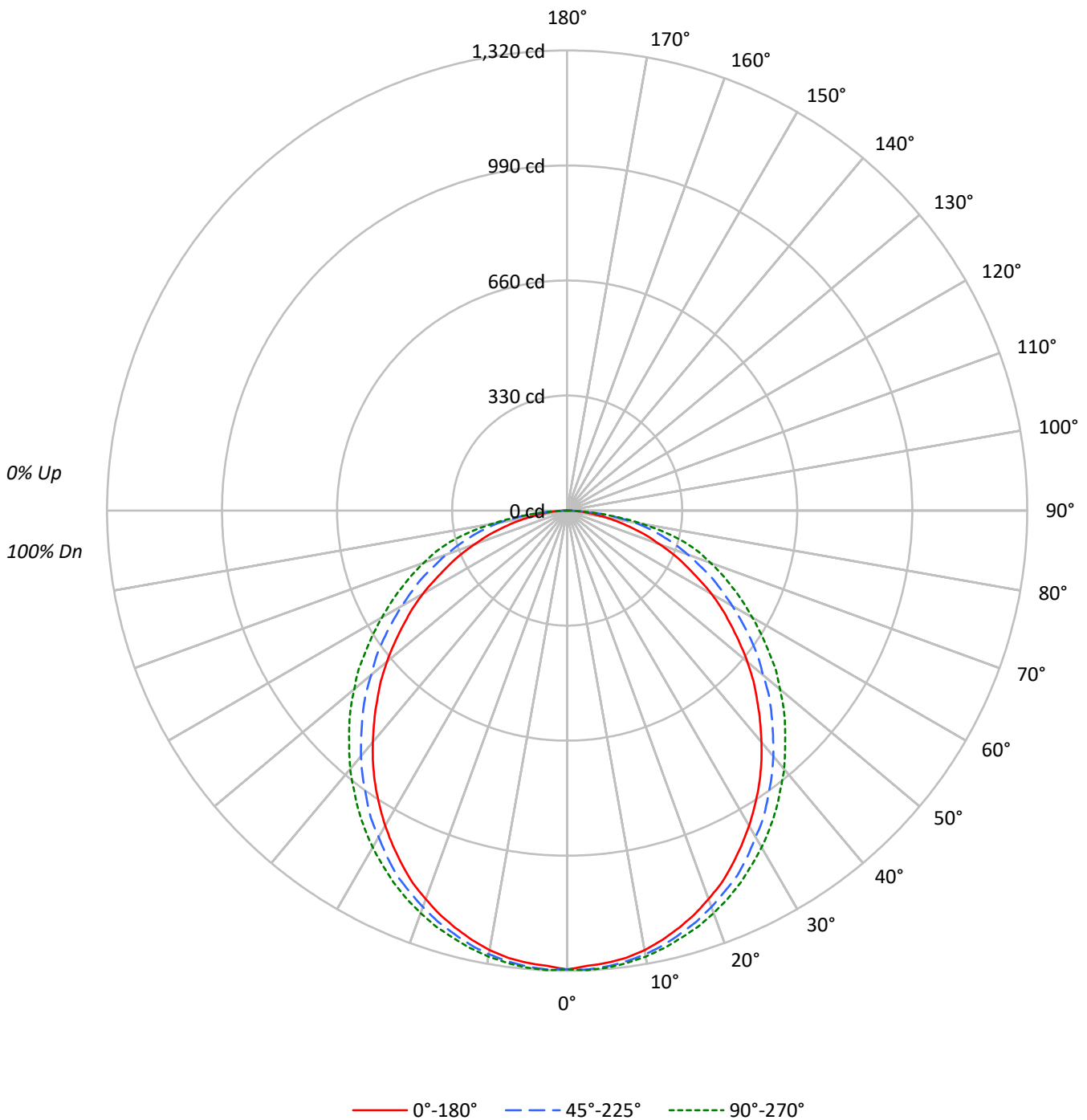
Input Watts (W): 31.527
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3542	3542	3542
5°	3518	3546	3555
10°	3498	3531	3550
15°	3452	3500	3533
20°	3396	3465	3519
25°	3328	3430	3496
30°	3243	3360	3466
35°	3153	3299	3434
40°	3046	3233	3401
45°	2935	3156	3365
50°	2827	3071	3336
55°	2693	3015	3313
60°	2573	2942	3302
65°	2401	2925	3339
70°	2212	2899	3438
75°	1995	2940	3617
80°	1726	3028	3400
85°	1430	2541	2541



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.5	3.4
10°-20°	354.2	9.6
20°-30°	530.0	14.4
30°-40°	627.6	17.1
40°-50°	639.6	17.4
50°-60°	573.3	15.6
60°-70°	448.8	12.2
70°-80°	289.4	7.9
80°-90°	85.5	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°	1008.7	27.5
0°-40°	1636.3	44.5
0°-60°	2849.3	77.6
0°-90°	3673.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3673.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1316	1316	1316	1316	1316	
5°	1302	1306	1313	1314	1316	124
15°	1239	1246	1256	1266	1268	349
25°	1121	1131	1155	1170	1177	516
35°	960	972	1004	1035	1045	600
45°	771	788	829	872	884	596
55°	574	593	643	687	706	515
65°	377	399	459	504	524	375
75°	192	221	283	331	348	206
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°	1316.2	1316.2	1316.2	1316.2	1316.2
2.5°	1307.6	1311.0	1317.9	1319.6	1319.6
5°	1302.4	1305.9	1312.7	1314.4	1316.2
7.5°	1293.9	1295.6	1304.2	1307.6	1309.3
10°	1280.2	1283.6	1292.2	1297.3	1299.0
12.5°	1261.3	1266.5	1276.7	1283.6	1285.3
15°	1239.0	1245.9	1256.2	1266.5	1268.2
17.5°	1215.0	1221.9	1235.6	1247.6	1251.0
20°	1185.9	1194.5	1209.9	1223.6	1228.7
22.5°	1156.8	1163.6	1182.5	1199.6	1204.8
25°	1120.8	1131.1	1155.1	1170.5	1177.3
27.5°	1083.1	1095.1	1119.1	1139.6	1146.5
30°	1043.7	1055.7	1081.4	1107.1	1115.6
32.5°	1002.5	1016.2	1047.1	1072.8	1081.4
35°	959.7	971.7	1004.3	1035.1	1045.4
37.5°	915.1	925.4	963.1	995.7	1006.0
40°	867.2	880.9	920.3	958.0	968.3
42.5°	819.2	834.6	874.0	915.1	925.4
45°	771.2	788.3	829.4	872.3	884.3
47.5°	724.9	738.6	784.9	826.0	843.2
50°	675.2	688.9	733.5	779.8	796.9
52.5°	623.8	642.7	690.6	735.2	755.8
55°	574.1	593.0	642.7	687.2	706.1
57.5°	527.8	543.3	594.7	640.9	659.8
60°	478.1	491.8	546.7	596.4	613.5
62.5°	425.0	445.6	502.1	548.4	569.0
65°	377.0	399.3	459.3	503.8	524.4
67.5°	332.5	353.0	411.3	459.3	481.6
70°	281.1	308.5	368.5	416.4	437.0
72.5°	239.9	263.9	325.6	373.6	395.9
75°	191.9	221.1	282.8	330.8	347.9
77.5°	152.5	181.7	239.9	277.6	286.2
80°	111.4	140.5	195.4	214.2	219.4
82.5°	75.4	102.8	140.5	145.7	147.4
85°	46.3	63.4	82.3	82.3	82.3
87.5°	22.3	25.7	29.1	27.4	27.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)