

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: P277481

Luminaire Tested: **22CZ2-44HE-S-UNV-L92765-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277481
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: 22CZ2-44HE-S-UNV-L92765-W2A1-U-3500K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3715.0 lumens
Efficiency: N/A
Efficacy: 107.1 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

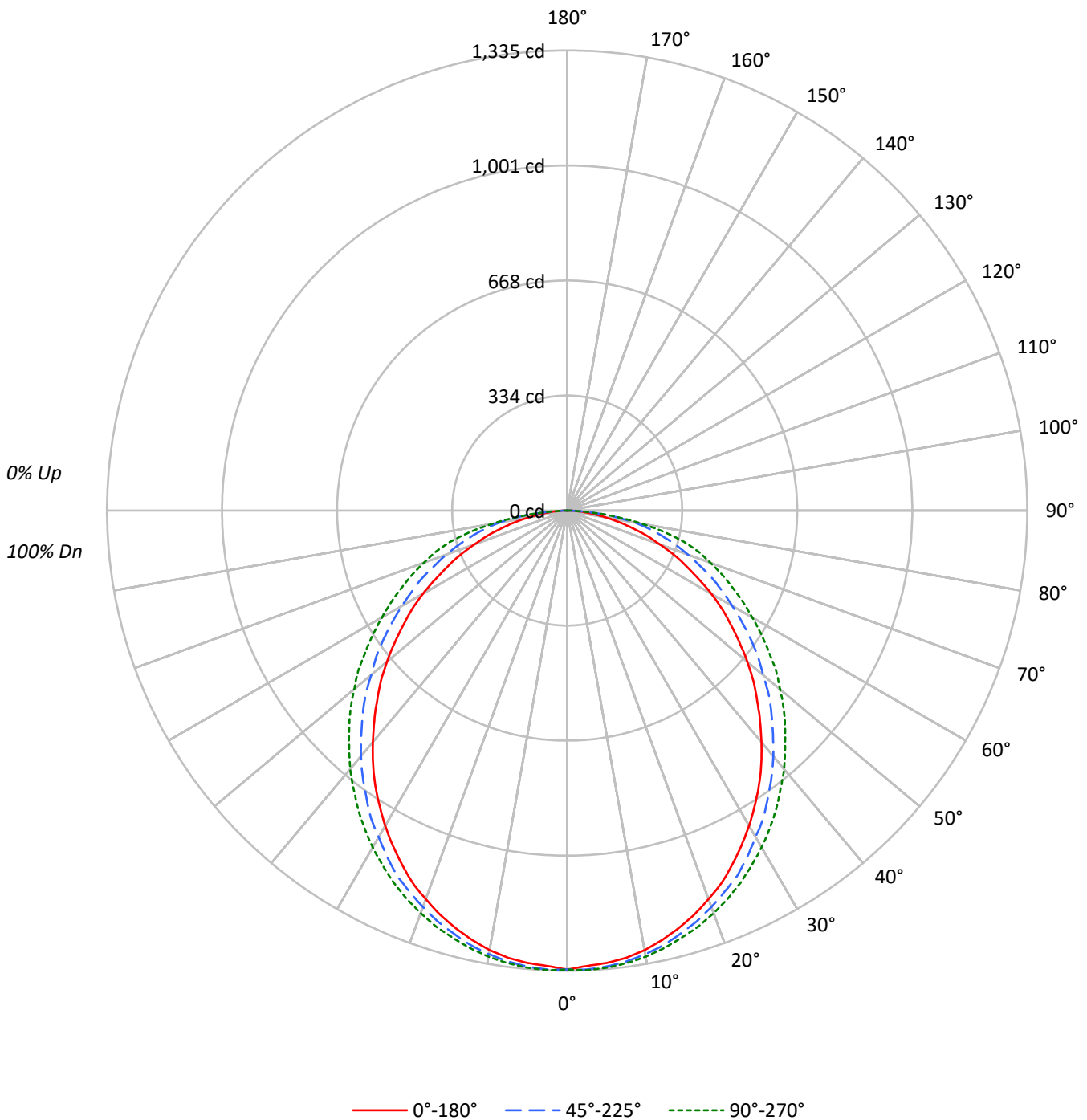
Input Watts (W): 34.689
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3582	3582	3582
5°	3558	3586	3596
10°	3538	3571	3590
15°	3491	3539	3573
20°	3435	3504	3559
25°	3366	3469	3536
30°	3280	3398	3506
35°	3189	3337	3473
40°	3081	3270	3440
45°	2968	3193	3404
50°	2859	3106	3374
55°	2724	3050	3350
60°	2603	2976	3340
65°	2428	2958	3377
70°	2237	2932	3478
75°	2018	2974	3659
80°	1746	3062	3439
85°	1445	2569	2569



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.9	3.4
10°-20°	358.3	9.6
20°-30°	536.0	14.4
30°-40°	634.8	17.1
40°-50°	647.0	17.4
50°-60°	579.9	15.6
60°-70°	454.0	12.2
70°-80°	292.7	7.9
80°-90°	86.5	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°	1020.2	27.5
0°-40°	1655.0	44.5
0°-60°	2881.8	77.6
0°-90°	3715.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3715.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1331	1331	1331	1331	1331	
5°	1317	1321	1328	1330	1331	125
15°	1253	1260	1270	1281	1283	353
25°	1134	1144	1168	1184	1191	522
35°	971	983	1016	1047	1057	607
45°	780	797	839	882	894	602
55°	581	600	650	695	714	521
65°	381	404	464	510	530	379
75°	194	224	286	334	352	208
85°	47	64	83	83	83	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1331.2	1331.2	1331.2	1331.2	1331.2
2.5°	1322.5	1326.0	1332.9	1334.7	1334.7
5°	1317.3	1320.8	1327.7	1329.5	1331.2
7.5°	1308.7	1310.4	1319.1	1322.5	1324.3
10°	1294.8	1298.3	1306.9	1312.1	1313.9
12.5°	1275.7	1280.9	1291.3	1298.3	1300.0
15°	1253.2	1260.1	1270.5	1280.9	1282.7
17.5°	1228.9	1235.9	1249.7	1261.9	1265.3
20°	1199.5	1208.1	1223.7	1237.6	1242.8
22.5°	1170.0	1176.9	1196.0	1213.3	1218.5
25°	1133.6	1144.0	1168.3	1183.9	1190.8
27.5°	1095.5	1107.6	1131.9	1152.7	1159.6
30°	1055.6	1067.7	1093.7	1119.7	1128.4
32.5°	1014.0	1027.9	1059.1	1085.1	1093.7
35°	970.7	982.8	1015.7	1046.9	1057.3
37.5°	925.6	936.0	974.1	1007.1	1017.5
40°	877.1	890.9	930.8	968.9	979.3
42.5°	828.5	844.1	884.0	925.6	936.0
45°	780.0	797.3	838.9	882.3	894.4
47.5°	733.2	747.1	793.9	835.5	852.8
50°	682.9	696.8	741.9	788.7	806.0
52.5°	630.9	650.0	698.5	743.6	764.4
55°	580.7	599.7	650.0	695.1	714.1
57.5°	533.9	549.5	601.5	648.3	667.3
60°	483.6	497.5	552.9	603.2	620.5
62.5°	429.9	450.7	507.9	554.7	575.5
65°	381.3	403.9	464.5	509.6	530.4
67.5°	336.3	357.1	416.0	464.5	487.1
70°	284.3	312.0	372.7	421.2	442.0
72.5°	242.7	266.9	329.3	377.9	400.4
75°	194.1	223.6	286.0	334.5	351.9
77.5°	154.3	183.7	242.7	280.8	289.5
80°	112.7	142.1	197.6	216.7	221.9
82.5°	76.3	104.0	142.1	147.3	149.1
85°	46.8	64.1	83.2	83.2	83.2
87.5°	22.5	26.0	29.5	27.7	27.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)