

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: P277376

Luminaire Tested: **22CZ2-44HE-S-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277376  
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-L93050-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: 3691.0 lumens  
Efficiency: N/A  
Efficacy: 104.7 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

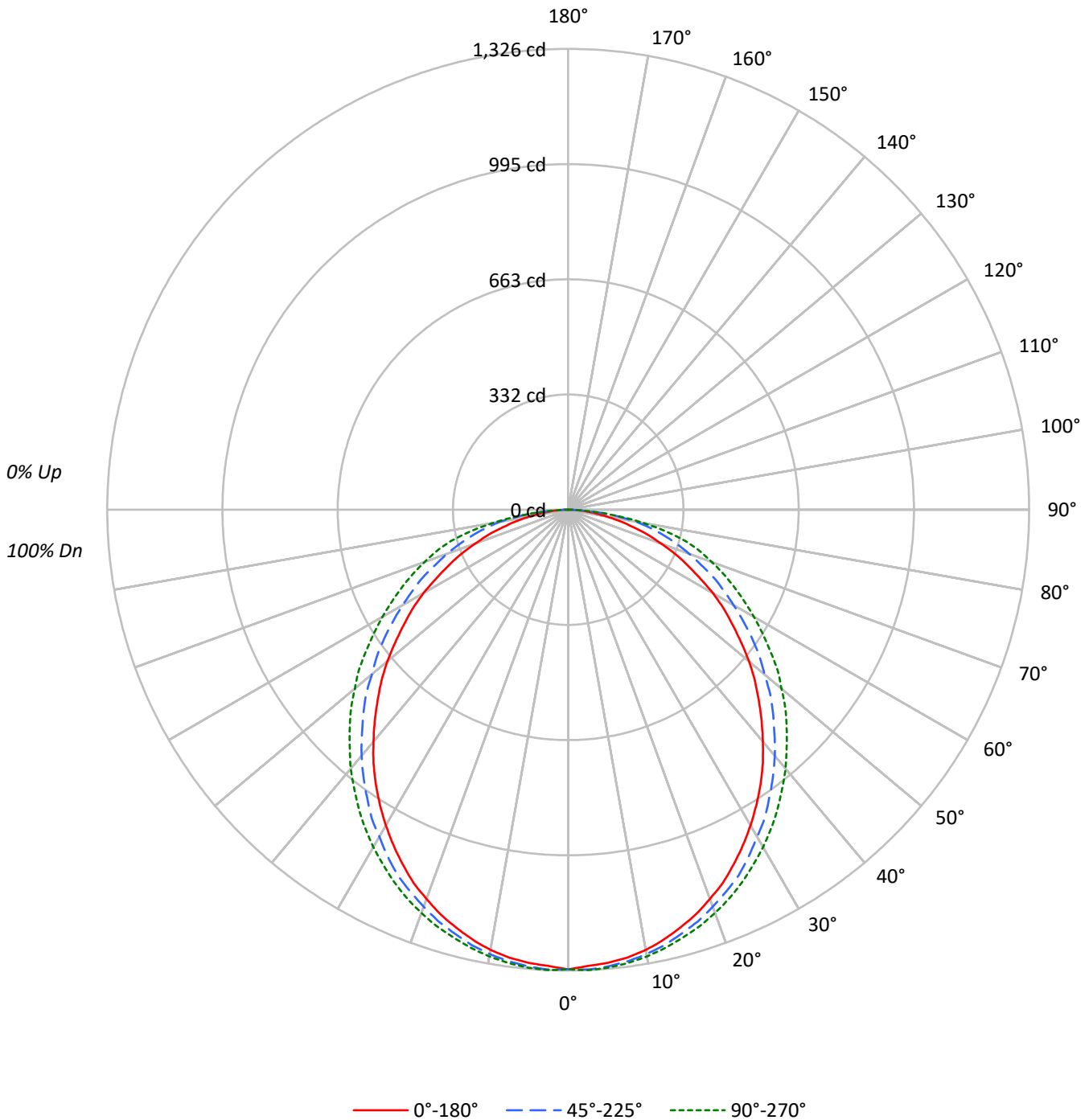
Input Watts (W): 35.253324  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3559	3559	3559
5°	3535	3563	3573
10°	3515	3548	3567
15°	3469	3517	3550
20°	3413	3482	3536
25°	3344	3446	3513
30°	3259	3377	3484
35°	3168	3315	3451
40°	3061	3249	3418
45°	2949	3172	3382
50°	2840	3086	3352
55°	2707	3030	3329
60°	2586	2957	3318
65°	2413	2939	3356
70°	2222	2913	3455
75°	2006	2955	3635
80°	1734	3042	3415
85°	1436	2553	2553



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	125.1	3.4
10°-20°	355.9	9.6
20°-30°	532.6	14.4
30°-40°	630.7	17.1
40°-50°	642.8	17.4
50°-60°	576.1	15.6
60°-70°	451.0	12.2
70°-80°	290.9	7.9
80°-90°	85.9	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°	1013.6	27.5
0°-40°	1644.3	44.5
0°-60°	2863.2	77.6
0°-90°	3691.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3691.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1323	1323	1323	1323	1323	
5°	1309	1312	1319	1321	1323	124
15°	1245	1252	1262	1273	1274	351
25°	1126	1137	1161	1176	1183	518
35°	964	976	1009	1040	1050	603
45°	775	792	834	877	889	598
55°	577	596	646	691	710	517
65°	379	401	462	506	527	376
75°	193	222	284	332	350	207
85°	46	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°	1322.6	1322.6	1322.6	1322.6	1322.6
2.5°	1314.0	1317.4	1324.3	1326.0	1326.0
5°	1308.8	1312.3	1319.2	1320.9	1322.6
7.5°	1300.2	1301.9	1310.5	1314.0	1315.7
10°	1286.4	1289.9	1298.5	1303.7	1305.4
12.5°	1267.5	1272.7	1283.0	1289.9	1291.6
15°	1245.1	1252.0	1262.3	1272.7	1274.4
17.5°	1221.0	1227.9	1241.7	1253.7	1257.2
20°	1191.7	1200.3	1215.8	1229.6	1234.8
22.5°	1162.4	1169.3	1188.3	1205.5	1210.7
25°	1126.3	1136.6	1160.7	1176.2	1183.1
27.5°	1088.4	1100.4	1124.6	1145.2	1152.1
30°	1048.8	1060.8	1086.7	1112.5	1121.1
32.5°	1007.4	1021.2	1052.2	1078.1	1086.7
35°	964.4	976.5	1009.2	1040.2	1050.5
37.5°	919.6	930.0	967.8	1000.6	1010.9
40°	871.4	885.2	924.8	962.7	973.0
42.5°	823.2	838.7	878.3	919.6	930.0
45°	775.0	792.2	833.5	876.6	888.6
47.5°	728.5	742.2	788.7	830.1	847.3
50°	678.5	692.3	737.1	783.6	800.8
52.5°	626.9	645.8	694.0	738.8	759.5
55°	576.9	595.9	645.8	690.6	709.5
57.5°	530.4	545.9	597.6	644.1	663.0
60°	480.5	494.3	549.4	599.3	616.5
62.5°	427.1	447.8	504.6	551.1	571.7
65°	378.9	401.3	461.5	506.3	527.0
67.5°	334.1	354.8	413.3	461.5	483.9
70°	282.4	310.0	370.3	418.5	439.1
72.5°	241.1	265.2	327.2	375.4	397.8
75°	192.9	222.2	284.2	332.4	349.6
77.5°	153.3	182.5	241.1	279.0	287.6
80°	111.9	141.2	196.3	215.3	220.4
82.5°	75.8	103.3	141.2	146.4	148.1
85°	46.5	63.7	82.7	82.7	82.7
87.5°	22.4	25.8	29.3	27.6	27.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)