

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: P276442

Luminaire Tested: **24CZ2-35-S-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P276442  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-35-S-UNV-L93050-W2A1-U-3000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2750.8 lumens  
Efficiency: N/A  
Efficacy: 103.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

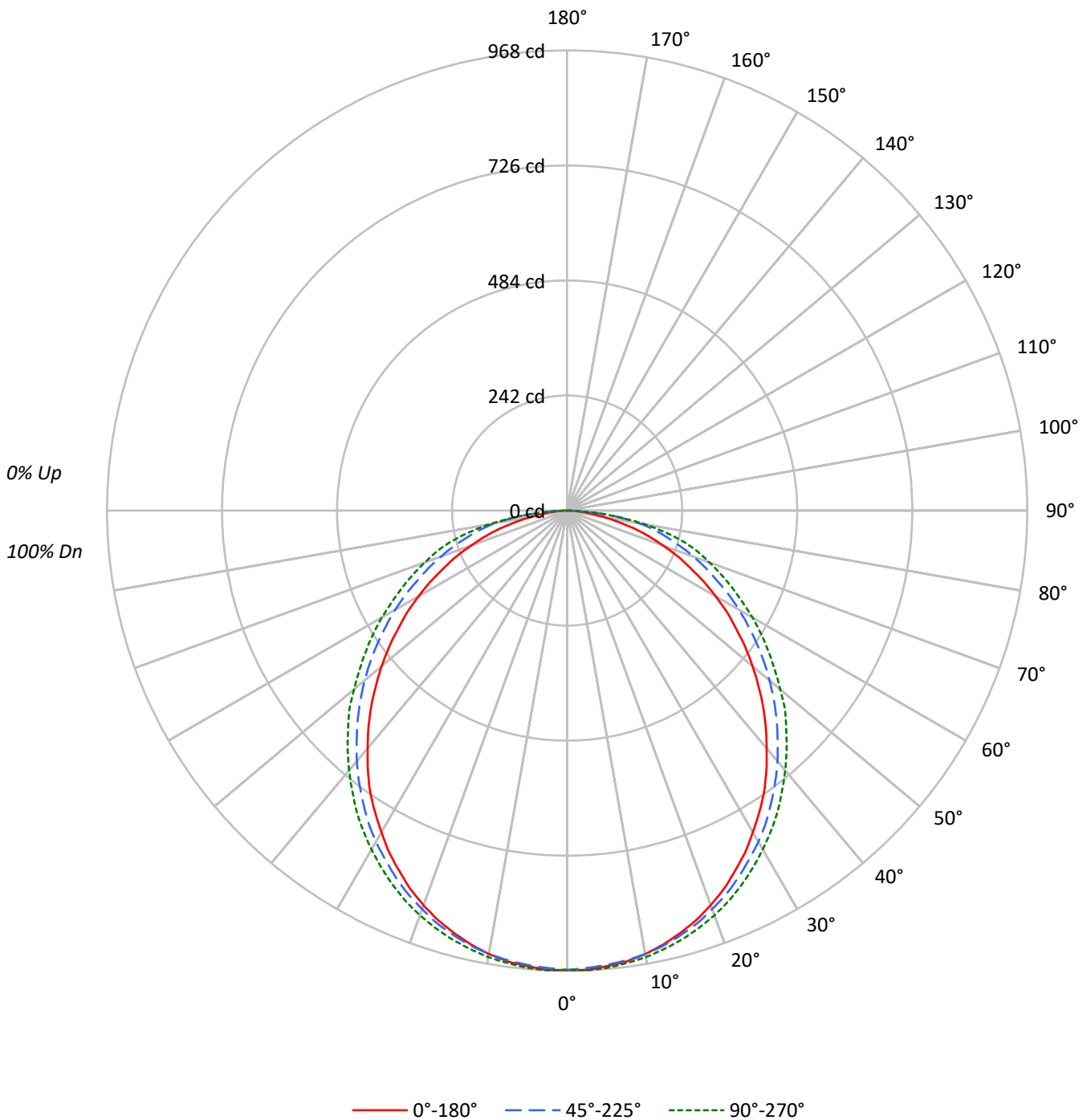
Input Watts (W): 26.63892  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P276442

CATALOG NUMBER: 24CZ2-35-S-UNV-L93050-W2A1-U-3000K

### Luminous Intensity Polar Plot





TEST NUMBER: P276442

CATALOG NUMBER: 24CZ2-35-S-UNV-L93050-W2A1-U-3000K

**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	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1300	1300	1300
5°	1299	1296	1304
10°	1294	1294	1304
15°	1282	1288	1301
20°	1265	1277	1297
25°	1241	1265	1289
30°	1214	1250	1279
35°	1187	1230	1269
40°	1146	1209	1254
45°	1109	1185	1240
50°	1066	1163	1225
55°	1019	1142	1213
60°	971	1124	1211
65°	910	1104	1218
70°	842	1110	1251
75°	754	1131	1322
80°	609	1199	1293
85°	459	1053	1025



TEST NUMBER: P276442

CATALOG NUMBER: 24CZ2-35-S-UNV-L93050-W2A1-U-3000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.5	3.3
10°-20°	261.4	9.5
20°-30°	393.0	14.3
30°-40°	468.1	17.0
40°-50°	479.1	17.4
50°-60°	431.3	15.7
60°-70°	338.7	12.3
70°-80°	219.8	8.0
80°-90°	68.0	2.5
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°	745.8	27.1
0°-40°	1213.9	44.1
0°-60°	2124.2	77.2
0°-90°	2750.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2750.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	966	966	966	966	966	
5°	962	964	959	965	966	91
15°	920	923	924	932	934	259
25°	836	843	852	866	868	385
35°	723	731	749	767	772	451
45°	583	597	623	647	652	449
55°	434	454	487	512	517	389
65°	286	308	347	376	383	284
75°	145	173	218	247	254	153
85°	30	55	68	66	66	36
90°	0	0	0	0	0	



TEST NUMBER: P276442

CATALOG NUMBER: 24CZ2-35-S-UNV-L93050-W2A1-U-3000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	966.3	966.3	966.3	966.3	966.3
2.5°	967.2	967.2	962.9	967.2	968.1
5°	962.0	963.7	959.4	964.6	965.5
7.5°	956.7	956.7	954.1	959.4	960.2
10°	947.1	948.0	947.1	953.2	954.1
12.5°	934.9	936.6	937.5	943.6	944.5
15°	920.0	922.7	924.4	932.3	934.0
17.5°	903.4	906.1	910.4	919.2	920.9
20°	883.3	886.8	892.1	903.4	906.1
22.5°	861.5	865.0	873.7	884.2	888.6
25°	836.2	843.2	851.9	865.9	868.5
27.5°	810.8	816.9	828.3	843.2	846.6
30°	781.1	790.7	804.7	819.6	823.1
32.5°	752.3	761.9	778.5	794.2	798.6
35°	722.6	731.3	748.8	767.1	772.4
37.5°	688.5	699.9	719.1	737.4	742.7
40°	652.7	666.7	688.5	707.7	713.8
42.5°	618.6	633.5	655.3	676.3	683.3
45°	582.8	596.8	623.0	646.6	651.8
47.5°	546.1	561.8	589.8	613.4	622.1
50°	509.4	526.0	555.7	580.2	585.4
52.5°	472.7	490.2	521.6	547.8	550.5
55°	434.2	453.5	486.7	512.0	517.2
57.5°	399.3	415.9	451.7	477.9	484.0
60°	360.9	379.2	417.6	442.1	450.0
62.5°	324.2	343.4	383.6	408.0	415.0
65°	285.7	307.6	346.9	375.7	382.7
67.5°	252.5	273.5	315.4	343.4	350.4
70°	214.1	237.7	282.2	311.0	318.0
72.5°	180.9	205.3	249.9	277.8	288.3
75°	145.0	173.0	217.6	247.3	254.3
77.5°	110.1	142.4	187.9	210.6	210.6
80°	78.6	112.7	154.7	165.1	166.9
82.5°	51.6	84.8	114.5	113.6	113.6
85°	29.7	55.0	68.2	66.4	66.4
87.5°	11.4	22.7	24.5	24.5	23.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)