

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: P276440

Luminaire Tested: **24CZ2-30-S-UNV-L93050-W2A1-U-4500K**

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: P276440
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: 24CZ2-30-S-UNV-L93050-W2A1-U-4500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2815.8 lumens
Efficiency: N/A
Efficacy: 124.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

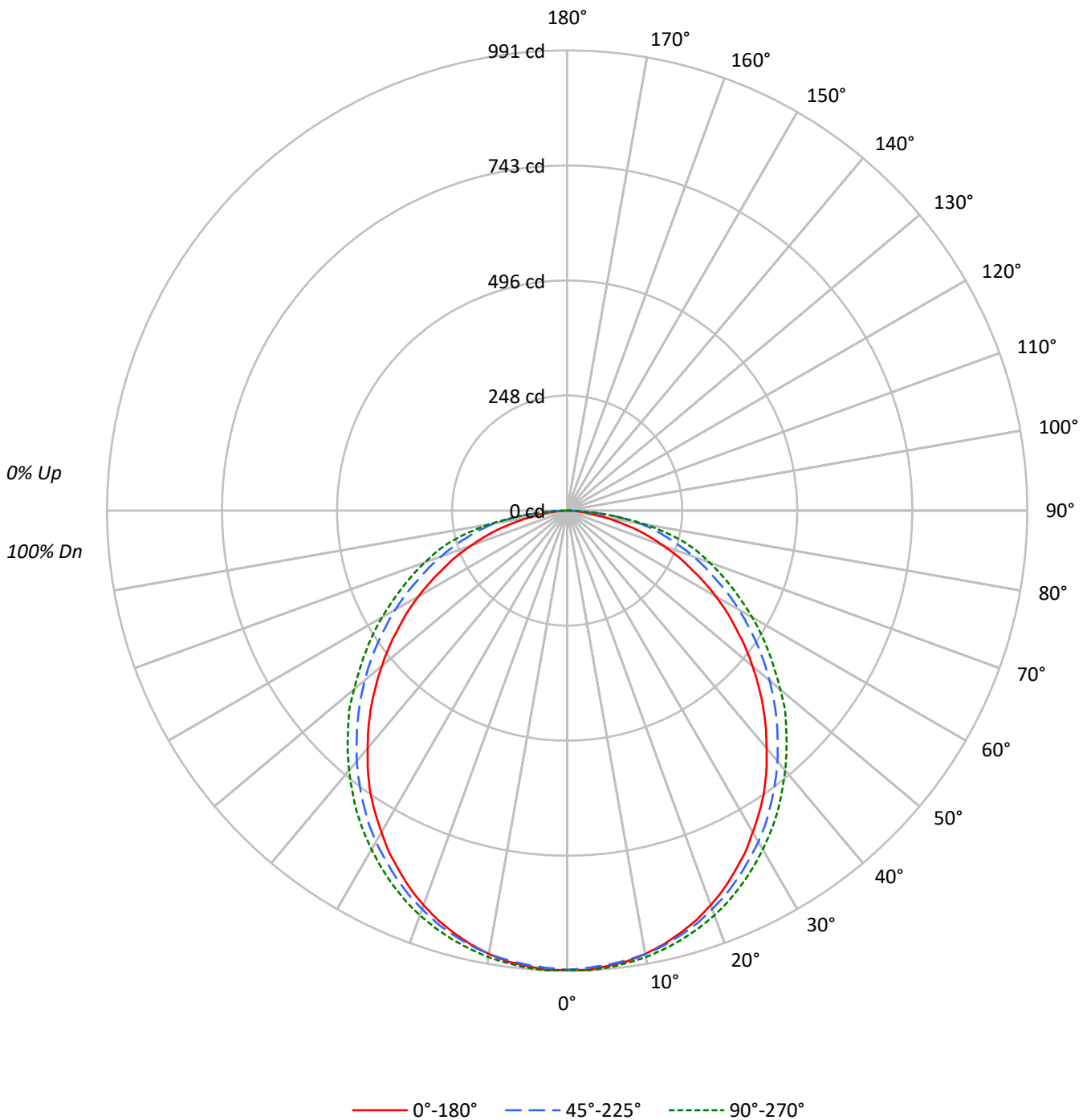
Input Watts (W): 22.676004
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P276440

CATALOG NUMBER: 24CZ2-30-S-UNV-L93050-W2A1-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P276440

CATALOG NUMBER: 24CZ2-30-S-UNV-L93050-W2A1-U-4500K

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°	1331	1331	1331
5°	1330	1326	1335
10°	1325	1325	1334
15°	1312	1318	1332
20°	1295	1308	1328
25°	1271	1295	1320
30°	1242	1280	1309
35°	1215	1259	1299
40°	1173	1238	1283
45°	1135	1213	1270
50°	1091	1191	1254
55°	1043	1169	1242
60°	994	1150	1239
65°	931	1131	1247
70°	862	1137	1281
75°	772	1158	1353
80°	624	1227	1323
85°	469	1078	1050



TEST NUMBER: P276440

CATALOG NUMBER: 24CZ2-30-S-UNV-L93050-W2A1-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.6	3.3
10°-20°	267.6	9.5
20°-30°	402.2	14.3
30°-40°	479.1	17.0
40°-50°	490.4	17.4
50°-60°	441.5	15.7
60°-70°	346.7	12.3
70°-80°	225.0	8.0
80°-90°	69.6	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°	763.5	27.1
0°-40°	1242.6	44.1
0°-60°	2174.5	77.2
0°-90°	2815.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2815.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	989	989	989	989	989	
5°	985	986	982	987	988	94
15°	942	944	946	954	956	266
25°	856	863	872	886	889	394
35°	740	749	766	785	791	461
45°	597	611	638	662	667	460
55°	444	464	498	524	530	398
65°	292	315	355	385	392	291
75°	148	177	223	253	260	157
85°	30	56	70	68	68	37
90°	0	0	0	0	0	



TEST NUMBER: P276440

CATALOG NUMBER: 24CZ2-30-S-UNV-L93050-W2A1-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	989.2	989.2	989.2	989.2	989.2
2.5°	990.1	990.1	985.6	990.1	991.0
5°	984.7	986.5	982.1	987.4	988.3
7.5°	979.4	979.4	976.7	982.1	983.0
10°	969.5	970.4	969.5	975.8	976.7
12.5°	957.0	958.8	959.7	966.0	966.9
15°	941.8	944.5	946.3	954.3	956.1
17.5°	924.8	927.5	932.0	940.9	942.7
20°	904.2	907.8	913.2	924.8	927.5
22.5°	881.9	885.5	894.4	905.1	909.6
25°	855.9	863.1	872.0	886.4	889.0
27.5°	830.0	836.3	847.9	863.1	866.7
30°	799.6	809.4	823.7	839.0	842.5
32.5°	770.1	779.9	796.9	813.0	817.5
35°	739.7	748.6	766.5	785.3	790.7
37.5°	704.8	716.4	736.1	754.9	760.2
40°	668.1	682.4	704.8	724.5	730.7
42.5°	633.2	648.4	670.8	692.3	699.4
45°	596.6	610.9	637.7	661.9	667.2
47.5°	559.0	575.1	603.7	627.9	636.8
50°	521.4	538.4	568.8	593.9	599.3
52.5°	483.9	501.8	534.0	560.8	563.5
55°	444.5	464.2	498.2	524.1	529.5
57.5°	408.7	425.7	462.4	489.2	495.5
60°	369.4	388.2	427.5	452.6	460.6
62.5°	331.8	351.5	392.6	417.7	424.8
65°	292.5	314.8	355.1	384.6	391.7
67.5°	258.5	279.9	322.9	351.5	358.7
70°	219.1	243.3	288.9	318.4	325.6
72.5°	185.1	210.2	255.8	284.4	295.2
75°	148.5	177.1	222.7	253.1	260.3
77.5°	112.7	145.8	192.3	215.6	215.6
80°	80.5	115.4	158.3	169.0	170.8
82.5°	52.8	86.8	117.2	116.3	116.3
85°	30.4	56.3	69.8	68.0	68.0
87.5°	11.6	23.3	25.0	25.0	24.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)