

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: P276438

Luminaire Tested: **24CZ2-30-S-UNV-L93050-W2A1-U-3500K**

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: P276438
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-3500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2562.6 lumens
Efficiency: N/A
Efficacy: 115.6 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

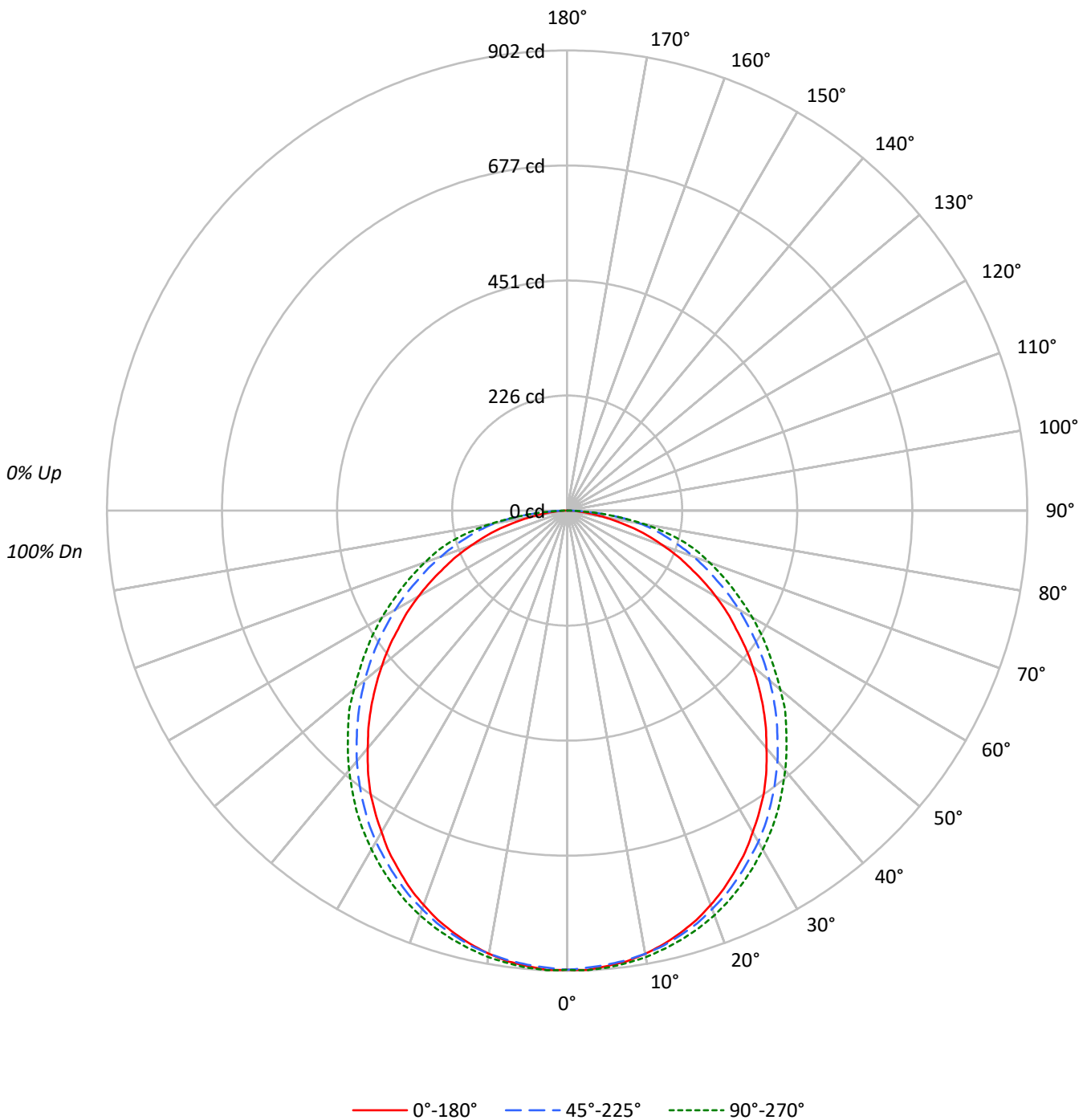
Input Watts (W): 22.175478
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P276438

CATALOG NUMBER: 24CZ2-30-S-UNV-L93050-W2A1-U-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P276438

CATALOG NUMBER: 24CZ2-30-S-UNV-L93050-W2A1-U-3500K

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°	1211	1211	1211
5°	1210	1207	1215
10°	1205	1205	1214
15°	1194	1200	1212
20°	1178	1190	1209
25°	1156	1178	1201
30°	1131	1165	1191
35°	1106	1146	1182
40°	1068	1127	1168
45°	1033	1104	1155
50°	993	1084	1142
55°	949	1064	1130
60°	905	1047	1128
65°	848	1029	1135
70°	784	1034	1166
75°	702	1054	1232
80°	568	1117	1205
85°	428	980	956



TEST NUMBER: P276438

CATALOG NUMBER: 24CZ2-30-S-UNV-L93050-W2A1-U-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.2	3.3
10°-20°	243.5	9.5
20°-30°	366.1	14.3
30°-40°	436.1	17.0
40°-50°	446.3	17.4
50°-60°	401.8	15.7
60°-70°	315.5	12.3
70°-80°	204.8	8.0
80°-90°	63.3	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°	694.8	27.1
0°-40°	1130.9	44.1
0°-60°	1978.9	77.2
0°-90°	2562.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2562.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	900	900	900	900	900	
5°	896	898	894	899	899	85
15°	857	860	861	868	870	242
25°	779	786	794	807	809	359
35°	673	681	698	715	720	420
45°	543	556	580	602	607	419
55°	404	422	453	477	482	363
65°	266	286	323	350	356	265
75°	135	161	203	230	237	143
85°	28	51	64	62	62	33
90°	0	0	0	0	0	



TEST NUMBER: P276438

CATALOG NUMBER: 24CZ2-30-S-UNV-L93050-W2A1-U-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	900.2	900.2	900.2	900.2	900.2
2.5°	901.1	901.1	897.0	901.1	901.9
5°	896.2	897.8	893.7	898.6	899.4
7.5°	891.3	891.3	888.9	893.7	894.5
10°	882.3	883.2	882.3	888.0	888.9
12.5°	870.9	872.6	873.4	879.1	879.9
15°	857.1	859.5	861.2	868.5	870.1
17.5°	841.6	844.1	848.2	856.3	857.9
20°	822.9	826.2	831.1	841.6	844.1
22.5°	802.6	805.8	814.0	823.7	827.8
25°	779.0	785.5	793.6	806.6	809.1
27.5°	755.4	761.1	771.6	785.5	788.7
30°	727.7	736.6	749.7	763.5	766.8
32.5°	700.8	709.8	725.2	739.9	744.0
35°	673.2	681.3	697.6	714.7	719.5
37.5°	641.4	652.0	669.9	687.0	691.9
40°	608.0	621.1	641.4	659.3	665.0
42.5°	576.3	590.1	610.5	630.0	636.5
45°	542.9	555.9	580.4	602.3	607.2
47.5°	508.7	523.4	549.4	571.4	579.5
50°	474.5	490.0	517.7	540.5	545.4
52.5°	440.4	456.6	485.9	510.4	512.8
55°	404.5	422.4	453.4	477.0	481.9
57.5°	372.0	387.4	420.8	445.2	450.9
60°	336.2	353.3	389.1	411.9	419.2
62.5°	302.0	319.9	357.3	380.1	386.6
65°	266.2	286.5	323.1	350.0	356.5
67.5°	235.2	254.8	293.8	319.9	326.4
70°	199.4	221.4	262.9	289.8	296.3
72.5°	168.5	191.3	232.8	258.8	268.6
75°	135.1	161.2	202.7	230.4	236.9
77.5°	102.6	132.7	175.0	196.2	196.2
80°	73.3	105.0	144.1	153.8	155.5
82.5°	48.0	79.0	106.6	105.8	105.8
85°	27.7	51.3	63.5	61.9	61.9
87.5°	10.6	21.2	22.8	22.8	22.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)