

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: P276018

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276018  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-30-UNV-L93050-W2A1-U-3500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2438.8 lumens  
Efficiency: N/A  
Efficacy: 110.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

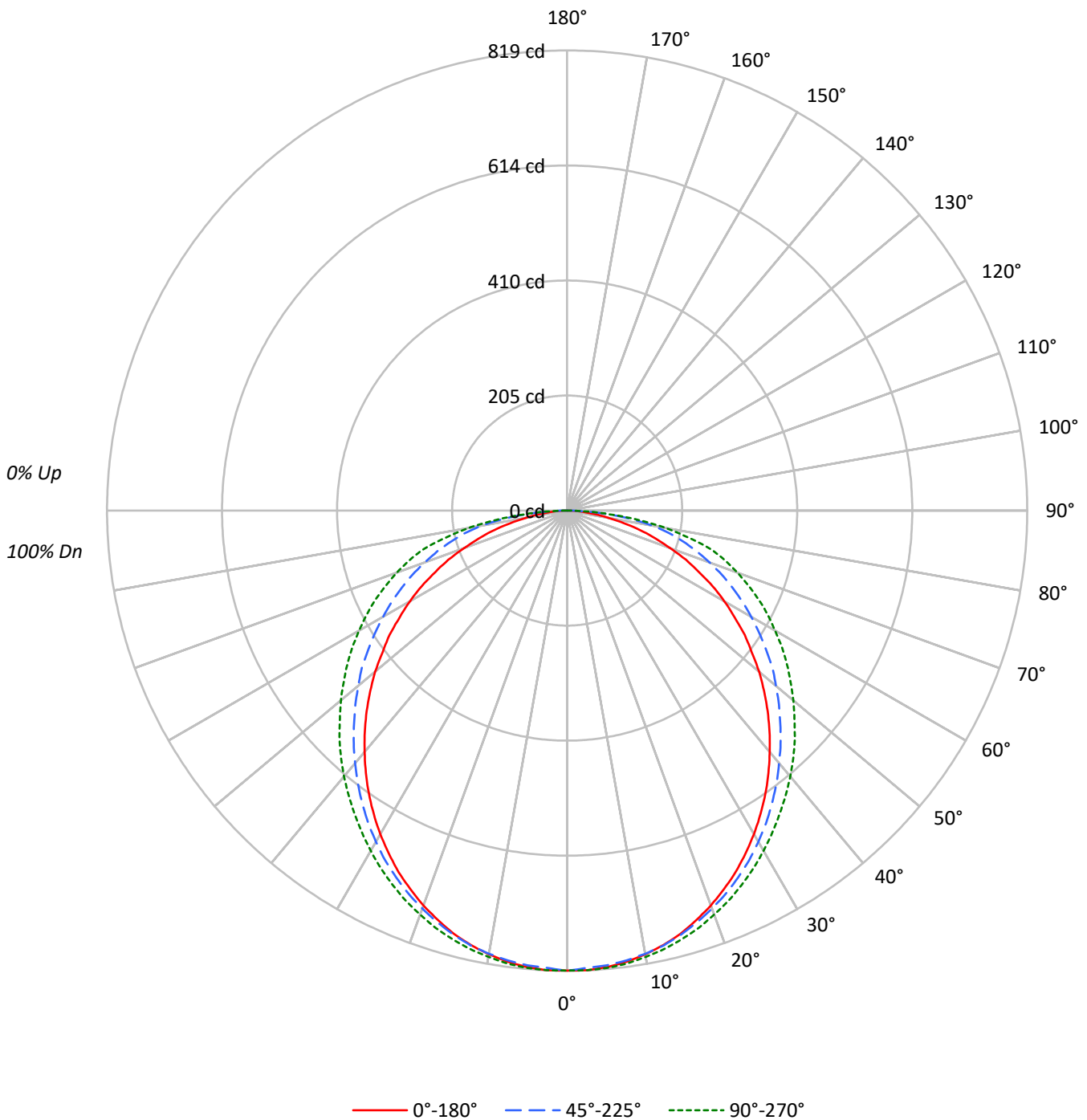
Input Watts (W): 22.175478  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P276018

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

### Luminous Intensity Polar Plot





TEST NUMBER: P276018

CATALOG NUMBER: 24CZ2-30-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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	1102	1102	1102
5°	1102	1097	1104
10°	1095	1094	1102
15°	1086	1088	1100
20°	1071	1079	1096
25°	1054	1069	1091
30°	1033	1057	1086
35°	1011	1044	1083
40°	985	1031	1085
45°	960	1021	1090
50°	934	1015	1101
55°	905	1014	1121
60°	869	1019	1150
65°	824	1034	1200
70°	765	1060	1268
75°	698	1113	1375
80°	574	1198	1375
85°	440	1105	1181



TEST NUMBER: P276018

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

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.4	3.2
10°-20°	221.1	9.1
20°-30°	332.7	13.6
30°-40°	398.7	16.3
40°-50°	415.5	17.0
50°-60°	386.6	15.9
60°-70°	318.4	13.1
70°-80°	216.8	8.9
80°-90°	71.6	2.9
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°	631.2	25.9
0°-40°	1030.0	42.2
0°-60°	1832.0	75.1
0°-90°	2438.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2438.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	819	819	819	819	819	
5°	816	816	812	816	817	77
15°	780	781	781	789	790	220
25°	710	713	720	733	735	327
35°	615	623	636	653	659	385
45°	505	515	536	563	573	389
55°	386	399	432	466	478	344
65°	259	281	325	363	377	257
75°	134	164	214	252	264	142
85°	28	55	72	76	76	35
90°	0	0	0	0	0	



TEST NUMBER: P276018

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

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	818.8	818.8	818.8	818.8	818.8
2.5°	818.8	818.8	814.8	818.8	818.8
5°	815.6	815.6	812.3	816.4	817.2
7.5°	809.9	810.7	807.4	812.3	813.1
10°	801.7	802.6	800.9	805.8	806.6
12.5°	792.0	792.8	792.8	798.5	799.3
15°	779.8	780.6	781.4	788.7	789.5
17.5°	764.3	766.7	768.4	777.3	778.9
20°	748.0	750.5	753.7	763.5	765.1
22.5°	729.3	732.6	738.2	748.8	751.3
25°	709.8	713.0	720.3	732.6	735.0
27.5°	687.8	692.7	701.6	714.6	717.9
30°	665.0	669.9	680.5	694.3	699.2
32.5°	640.6	647.1	659.3	674.8	679.6
35°	615.3	622.7	635.7	652.8	659.3
37.5°	588.5	596.6	612.1	630.8	638.9
40°	560.8	570.6	586.9	608.8	617.8
42.5°	533.1	542.1	562.4	586.0	595.8
45°	504.6	515.2	536.4	563.3	573.0
47.5°	475.3	485.9	511.2	539.6	548.6
50°	446.0	456.6	485.1	515.2	525.8
52.5°	414.3	428.1	460.7	490.8	501.4
55°	385.8	398.8	432.2	466.4	477.8
57.5°	353.3	368.7	405.3	441.2	453.4
60°	323.1	339.4	378.5	415.1	427.3
62.5°	292.2	310.1	351.6	389.1	402.9
65°	258.8	280.8	324.8	363.0	376.9
67.5°	228.7	251.5	297.9	337.0	349.2
70°	194.5	222.2	269.4	308.5	322.3
72.5°	165.2	192.9	242.6	280.8	294.6
75°	134.3	164.4	214.1	252.3	264.5
77.5°	103.4	136.7	186.4	215.7	219.8
80°	74.1	109.1	154.6	171.7	177.4
82.5°	52.1	83.8	114.0	125.3	128.6
85°	28.5	55.3	71.6	76.5	76.5
87.5°	12.2	23.6	28.5	29.3	30.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)