

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: P276597

Luminaire Tested: **24CZ2-30HE-S-UNV-L92765-W2A1-U-2700K**

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: P276597  
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: 24CZ2-30HE-S-UNV-L92765-W2A1-U-2700K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2391.6 lumens  
Efficiency: N/A  
Efficacy: 121.9 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

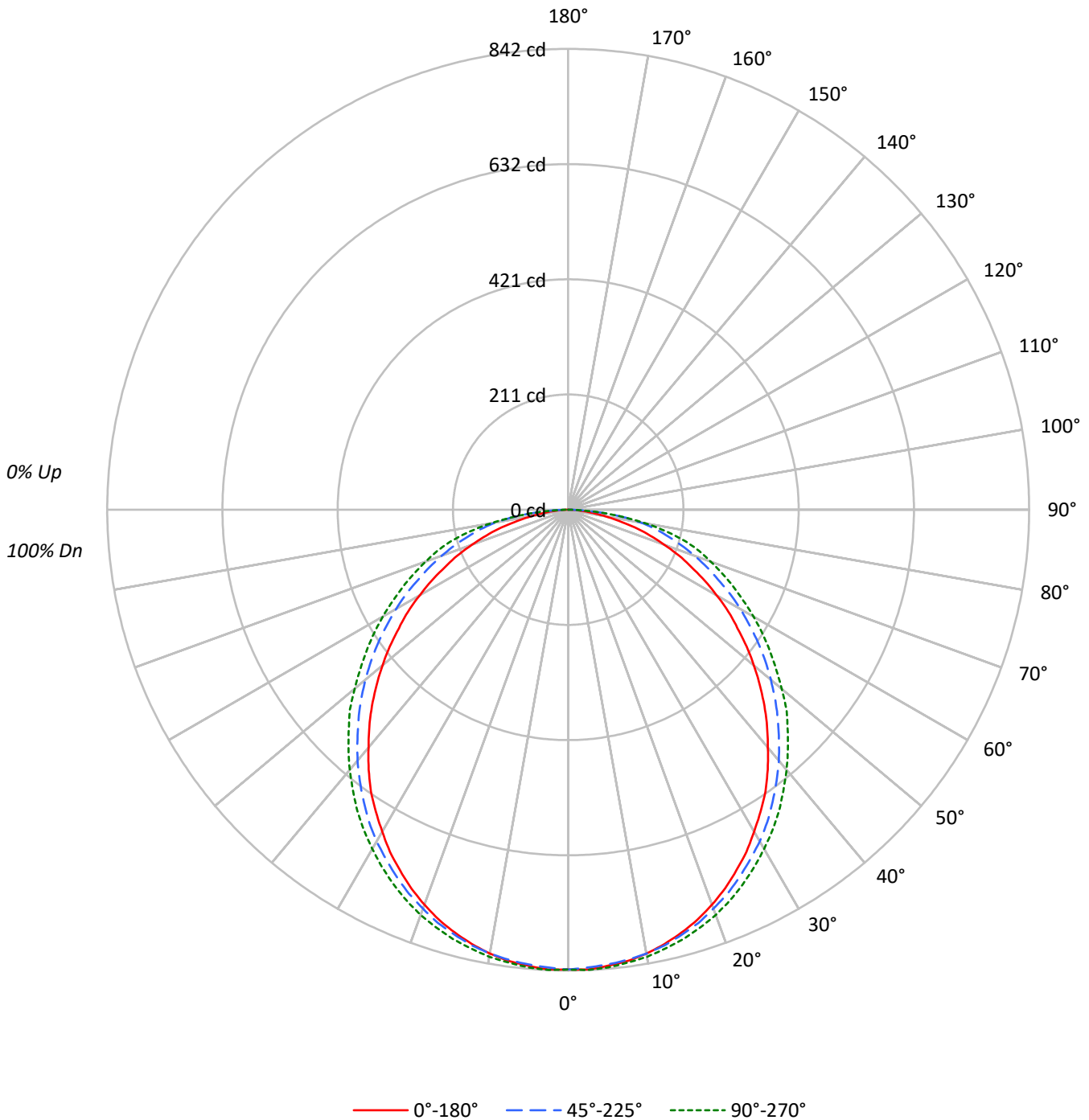
Input Watts (W): 19.623  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P276597

CATALOG NUMBER: 24CZ2-30HE-S-UNV-L92765-W2A1-U-2700K

### Luminous Intensity Polar Plot





TEST NUMBER: P276597

CATALOG NUMBER: 24CZ2-30HE-S-UNV-L92765-W2A1-U-2700K

**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°	1130	1130	1130
5°	1130	1127	1134
10°	1125	1125	1133
15°	1114	1120	1131
20°	1100	1111	1128
25°	1079	1100	1121
30°	1055	1087	1112
35°	1032	1069	1103
40°	997	1051	1090
45°	964	1031	1078
50°	927	1011	1065
55°	886	993	1055
60°	844	977	1053
65°	791	960	1059
70°	732	965	1088
75°	656	984	1149
80°	530	1042	1124
85°	398	915	891



TEST NUMBER: P276597

CATALOG NUMBER: 24CZ2-30HE-S-UNV-L92765-W2A1-U-2700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.5	3.3
10°-20°	227.3	9.5
20°-30°	341.6	14.3
30°-40°	406.9	17.0
40°-50°	416.5	17.4
50°-60°	375.0	15.7
60°-70°	294.5	12.3
70°-80°	191.1	8.0
80°-90°	59.1	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°	648.5	27.1
0°-40°	1055.4	44.1
0°-60°	1846.9	77.2
0°-90°	2391.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2391.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	840	840	840	840	840	
5°	836	838	834	839	839	79
15°	800	802	804	810	812	226
25°	727	733	741	753	755	335
35°	628	636	651	667	672	392
45°	507	519	542	562	567	391
55°	378	394	423	445	450	338
65°	248	267	302	327	333	247
75°	126	150	189	215	221	133
85°	26	48	59	58	58	31
90°	0	0	0	0	0	



TEST NUMBER: P276597

CATALOG NUMBER: 24CZ2-30HE-S-UNV-L92765-W2A1-U-2700K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	840.2	840.2	840.2	840.2	840.2
2.5°	840.9	840.9	837.1	840.9	841.7
5°	836.4	837.9	834.1	838.6	839.4
7.5°	831.8	831.8	829.5	834.1	834.8
10°	823.5	824.2	823.5	828.8	829.5
12.5°	812.8	814.3	815.1	820.4	821.2
15°	799.9	802.2	803.7	810.5	812.1
17.5°	785.5	787.8	791.6	799.1	800.7
20°	768.0	771.0	775.6	785.5	787.8
22.5°	749.0	752.0	759.6	768.8	772.6
25°	727.0	733.1	740.7	752.8	755.1
27.5°	705.0	710.3	720.1	733.1	736.1
30°	679.1	687.5	699.6	712.5	715.6
32.5°	654.1	662.4	676.8	690.5	694.3
35°	628.2	635.8	651.0	667.0	671.5
37.5°	598.6	608.5	625.2	641.1	645.7
40°	567.5	579.6	598.6	615.3	620.6
42.5°	537.8	550.7	569.7	588.0	594.0
45°	506.7	518.8	541.6	562.1	566.7
47.5°	474.8	488.5	512.8	533.3	540.9
50°	442.9	457.3	483.1	504.4	509.0
52.5°	411.0	426.2	453.5	476.3	478.6
55°	377.5	394.3	423.1	445.2	449.7
57.5°	347.2	361.6	392.7	415.5	420.8
60°	313.7	329.7	363.1	384.4	391.2
62.5°	281.8	298.5	333.5	354.8	360.8
65°	248.4	267.4	301.6	326.6	332.7
67.5°	219.5	237.8	274.2	298.5	304.6
70°	186.1	206.6	245.4	270.4	276.5
72.5°	157.2	178.5	217.3	241.6	250.7
75°	126.1	150.4	189.2	215.0	221.1
77.5°	95.7	123.8	163.3	183.1	183.1
80°	68.4	98.0	134.5	143.6	145.1
82.5°	44.8	73.7	99.5	98.8	98.8
85°	25.8	47.9	59.3	57.7	57.7
87.5°	9.9	19.8	21.3	21.3	20.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)