

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: P276691

Luminaire Tested: **24CZ2-30-S-UNV-L92765-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: P276691  
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-L92765-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: 2731.5 lumens  
Efficiency: N/A  
Efficacy: 123.4 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

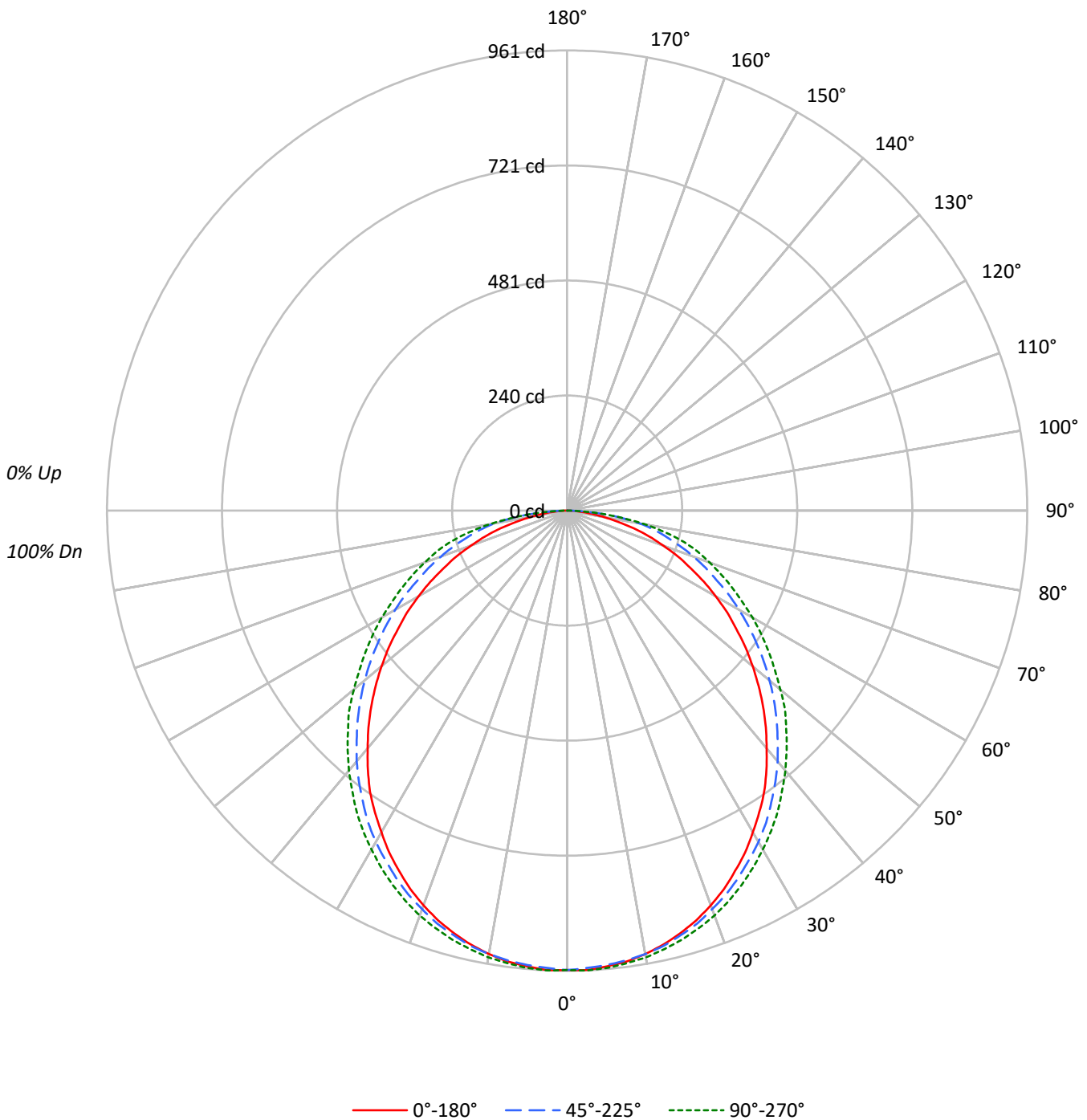
Input Watts (W): 22.134  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**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°	1291	1291	1291
5°	1290	1287	1295
10°	1285	1285	1294
15°	1273	1279	1292
20°	1256	1268	1288
25°	1233	1256	1280
30°	1205	1242	1270
35°	1179	1221	1260
40°	1138	1201	1245
45°	1101	1177	1231
50°	1059	1155	1217
55°	1012	1134	1205
60°	964	1116	1202
65°	903	1096	1210
70°	836	1102	1242
75°	749	1123	1313
80°	605	1190	1284
85°	455	1045	1017



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.8	3.3
10°-20°	259.6	9.5
20°-30°	390.2	14.3
30°-40°	464.8	17.0
40°-50°	475.7	17.4
50°-60°	428.3	15.7
60°-70°	336.3	12.3
70°-80°	218.3	8.0
80°-90°	67.5	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°	740.6	27.1
0°-40°	1205.4	44.1
0°-60°	2109.4	77.2
0°-90°	2731.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2731.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	960	960	960	960	960	
5°	955	957	953	958	959	91
15°	914	916	918	926	928	258
25°	830	837	846	860	862	383
35°	718	726	744	762	767	448
45°	579	593	619	642	647	446
55°	431	450	483	508	514	387
65°	284	305	344	373	380	282
75°	144	172	216	246	252	152
85°	30	55	68	66	66	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	959.6	959.6	959.6	959.6	959.6
2.5°	960.5	960.5	956.1	960.5	961.3
5°	955.3	957.0	952.7	957.9	958.7
7.5°	950.0	950.0	947.4	952.7	953.5
10°	940.5	941.4	940.5	946.6	947.4
12.5°	928.4	930.1	931.0	937.0	937.9
15°	913.6	916.2	917.9	925.8	927.5
17.5°	897.1	899.7	904.1	912.7	914.5
20°	877.2	880.6	885.8	897.1	899.7
22.5°	855.5	858.9	867.6	878.0	882.4
25°	830.3	837.3	845.9	859.8	862.4
27.5°	805.2	811.2	822.5	837.3	840.7
30°	775.7	785.2	799.1	813.8	817.3
32.5°	747.0	756.6	773.1	788.7	793.0
35°	717.5	726.2	743.6	761.8	767.0
37.5°	683.7	695.0	714.1	732.3	737.5
40°	648.1	662.0	683.7	702.8	708.8
42.5°	614.3	629.0	650.7	671.5	678.5
45°	578.7	592.6	618.6	642.0	647.2
47.5°	542.3	557.9	585.6	609.1	617.7
50°	505.8	522.3	551.8	576.1	581.3
52.5°	469.4	486.7	518.0	544.0	546.6
55°	431.2	450.3	483.3	508.4	513.6
57.5°	396.5	413.0	448.6	474.6	480.7
60°	358.3	376.5	414.7	439.0	446.8
62.5°	321.9	341.0	380.9	405.2	412.1
65°	283.7	305.4	344.4	373.1	380.0
67.5°	250.7	271.6	313.2	341.0	347.9
70°	212.6	236.0	280.2	308.9	315.8
72.5°	179.6	203.9	248.1	275.9	286.3
75°	144.0	171.8	216.0	245.5	252.5
77.5°	109.3	141.4	186.5	209.1	209.1
80°	78.1	111.9	153.6	164.0	165.7
82.5°	51.2	84.2	113.7	112.8	112.8
85°	29.5	54.7	67.7	65.9	65.9
87.5°	11.3	22.6	24.3	24.3	23.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)