

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: P276599

Luminaire Tested: **24CZ2-30HE-S-UNV-L92765-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: P276599  
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-3500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 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: 2611.2 lumens  
Efficiency: N/A  
Efficacy: 133.1 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

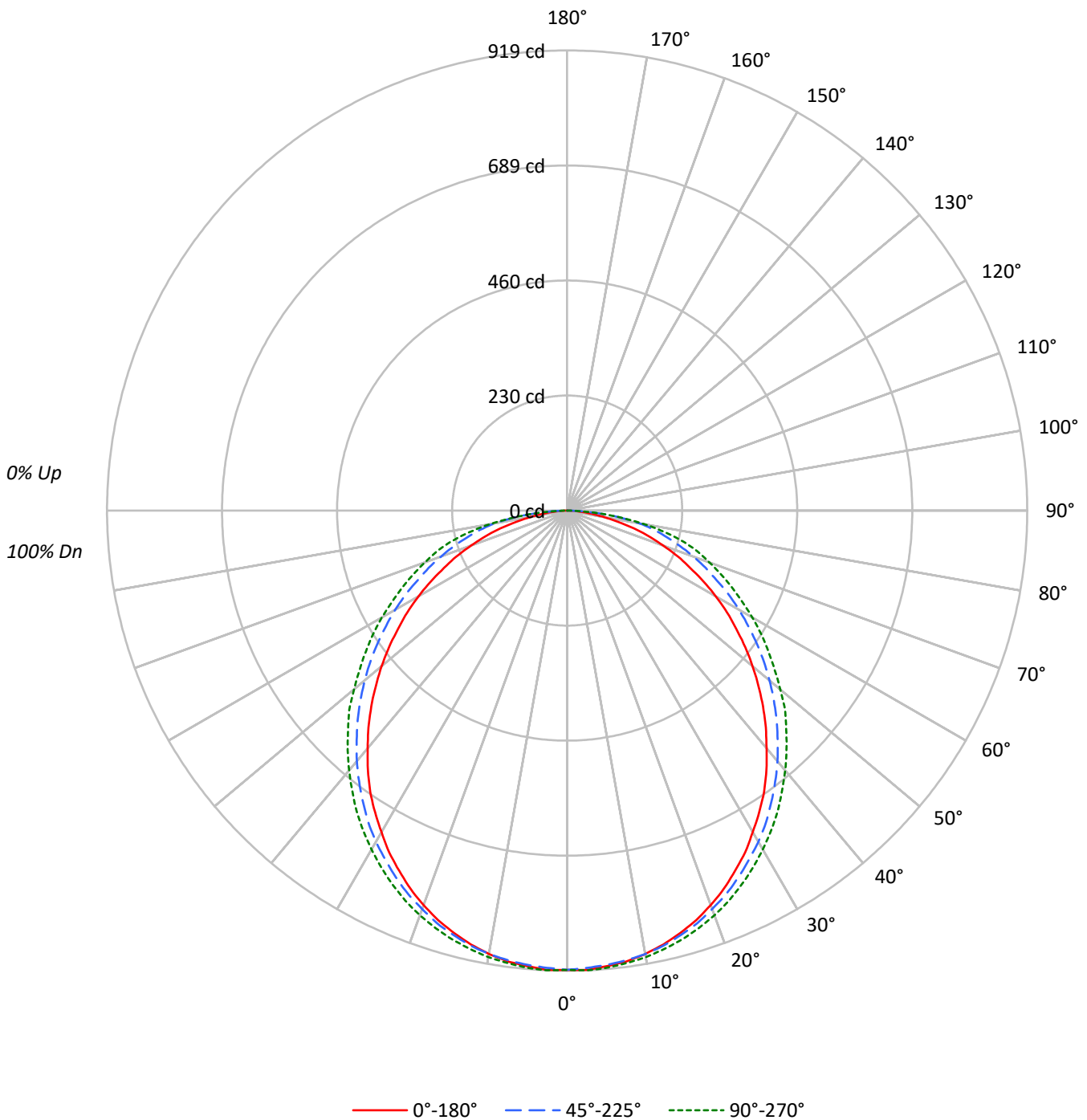
Input Watts (W): 19.623  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1234	1234	1234
5°	1233	1230	1238
10°	1228	1228	1237
15°	1217	1222	1235
20°	1201	1212	1232
25°	1178	1201	1224
30°	1152	1187	1214
35°	1127	1168	1204
40°	1088	1148	1190
45°	1053	1125	1177
50°	1012	1104	1163
55°	967	1084	1152
60°	922	1067	1150
65°	863	1048	1157
70°	799	1054	1188
75°	716	1074	1255
80°	578	1137	1227
85°	435	999	973



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.8	3.3
10°-20°	248.1	9.5
20°-30°	373.0	14.3
30°-40°	444.3	17.0
40°-50°	454.8	17.4
50°-60°	409.4	15.7
60°-70°	321.5	12.3
70°-80°	208.7	8.0
80°-90°	64.5	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°	708.0	27.1
0°-40°	1152.3	44.1
0°-60°	2016.5	77.2
0°-90°	2611.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2611.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	917	917	917	917	917	
5°	913	915	911	916	916	87
15°	873	876	878	885	887	246
25°	794	800	809	822	824	366
35°	686	694	711	728	733	428
45°	553	566	591	614	619	427
55°	412	430	462	486	491	370
65°	271	292	329	357	363	270
75°	138	164	206	235	241	146
85°	28	52	65	63	63	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	917.3	917.3	917.3	917.3	917.3
2.5°	918.2	918.2	914.0	918.2	919.0
5°	913.2	914.9	910.7	915.7	916.5
7.5°	908.2	908.2	905.7	910.7	911.5
10°	899.1	899.9	899.1	904.9	905.7
12.5°	887.5	889.1	890.0	895.8	896.6
15°	873.4	875.9	877.5	885.0	886.7
17.5°	857.6	860.1	864.3	872.6	874.2
20°	838.5	841.9	846.8	857.6	860.1
22.5°	817.8	821.1	829.4	839.4	843.5
25°	793.8	800.4	808.7	822.0	824.4
27.5°	769.7	775.5	786.3	800.4	803.7
30°	741.5	750.6	763.9	778.0	781.3
32.5°	714.1	723.3	739.0	753.9	758.1
35°	685.9	694.2	710.8	728.2	733.2
37.5°	653.6	664.4	682.6	700.0	705.0
40°	619.6	632.8	653.6	671.8	677.6
42.5°	587.2	601.3	622.1	642.0	648.6
45°	553.2	566.5	591.4	613.8	618.7
47.5°	518.4	533.3	559.9	582.3	590.5
50°	483.6	499.3	527.5	550.7	555.7
52.5°	448.7	465.3	495.2	520.0	522.5
55°	412.2	430.5	462.0	486.0	491.0
57.5°	379.0	394.8	428.8	453.7	459.5
60°	342.6	360.0	396.5	419.7	427.2
62.5°	307.7	326.0	364.1	387.3	394.0
65°	271.2	292.0	329.3	356.7	363.3
67.5°	239.7	259.6	299.4	326.0	332.6
70°	203.2	225.6	267.9	295.3	301.9
72.5°	171.7	194.9	237.2	263.8	273.7
75°	137.7	164.2	206.5	234.7	241.4
77.5°	104.5	135.2	178.3	199.9	199.9
80°	74.6	107.0	146.8	156.8	158.4
82.5°	48.9	80.5	108.7	107.8	107.8
85°	28.2	52.3	64.7	63.0	63.0
87.5°	10.8	21.6	23.2	23.2	22.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)