

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: P276602

Luminaire Tested: **24CZ2-30HE-S-UNV-L92765-W2A1-U-5000K**

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: P276602
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-5000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2821.0 lumens
Efficiency: N/A
Efficacy: 140.4 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

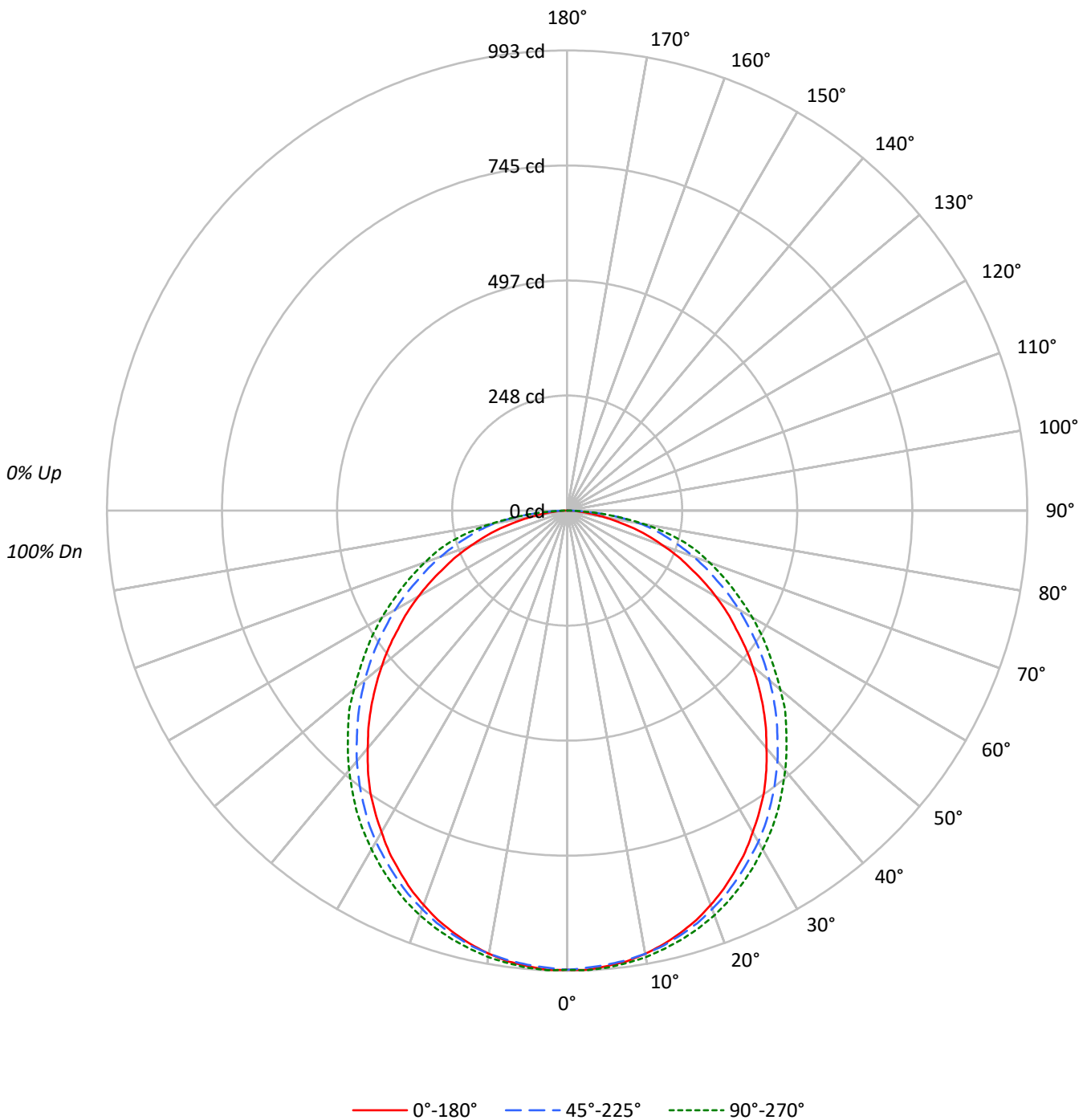
Input Watts (W): 20.088
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1333	1333	1333
5°	1332	1329	1337
10°	1327	1327	1337
15°	1314	1321	1334
20°	1297	1310	1330
25°	1273	1297	1322
30°	1245	1282	1311
35°	1217	1261	1301
40°	1176	1240	1286
45°	1137	1216	1272
50°	1093	1193	1257
55°	1045	1171	1244
60°	996	1153	1242
65°	933	1132	1250
70°	864	1138	1283
75°	773	1160	1355
80°	625	1229	1326
85°	471	1079	1051



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.8	3.3
10°-20°	268.1	9.5
20°-30°	403.0	14.3
30°-40°	480.0	17.0
40°-50°	491.3	17.4
50°-60°	442.3	15.7
60°-70°	347.3	12.3
70°-80°	225.4	8.0
80°-90°	69.7	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°	764.9	27.1
0°-40°	1244.9	44.1
0°-60°	2178.5	77.2
0°-90°	2821.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2821.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	991	991	991	991	991	
5°	986	988	984	989	990	94
15°	944	946	948	956	958	266
25°	858	865	874	888	891	395
35°	741	750	768	787	792	462
45°	598	612	639	663	668	461
55°	445	465	499	525	530	399
65°	293	315	356	385	392	292
75°	149	177	223	254	261	157
85°	30	56	70	68	68	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	991.0	991.0	991.0	991.0	991.0
2.5°	991.9	991.9	987.4	991.9	992.8
5°	986.5	988.3	983.9	989.2	990.1
7.5°	981.2	981.2	978.5	983.9	984.7
10°	971.3	972.2	971.3	977.6	978.5
12.5°	958.8	960.6	961.5	967.7	968.6
15°	943.5	946.2	948.0	956.1	957.9
17.5°	926.5	929.2	933.7	942.6	944.4
20°	905.9	909.5	914.9	926.5	929.2
22.5°	883.5	887.1	896.0	906.8	911.3
25°	857.5	864.7	873.6	888.0	890.7
27.5°	831.5	837.8	849.4	864.7	868.3
30°	801.1	810.9	825.3	840.5	844.1
32.5°	771.5	781.3	798.4	814.5	819.0
35°	741.0	750.0	767.9	786.7	792.1
37.5°	706.1	717.7	737.4	756.3	761.6
40°	669.3	683.7	706.1	725.8	732.1
42.5°	634.4	649.6	672.0	693.5	700.7
45°	597.7	612.0	638.9	663.1	668.4
47.5°	560.0	576.2	604.8	629.0	638.0
50°	522.4	539.4	569.9	595.0	600.3
52.5°	484.8	502.7	534.9	561.8	564.5
55°	445.3	465.0	499.1	525.1	530.5
57.5°	409.5	426.5	463.3	490.1	496.4
60°	370.1	388.9	428.3	453.4	461.5
62.5°	332.4	352.1	393.4	418.5	425.6
65°	293.0	315.4	355.7	385.3	392.5
67.5°	259.0	280.5	323.5	352.1	359.3
70°	219.5	243.7	289.4	319.0	326.2
72.5°	185.5	210.6	256.3	284.9	295.7
75°	148.7	177.4	223.1	253.6	260.7
77.5°	112.9	146.1	192.6	215.9	215.9
80°	80.6	115.6	158.6	169.4	171.1
82.5°	52.9	86.9	117.4	116.5	116.5
85°	30.5	56.5	69.9	68.1	68.1
87.5°	11.6	23.3	25.1	25.1	24.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)