

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: P276388

Luminaire Tested: **24CZ2-30HE-S-UNV-L93050-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: P276388
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-L93050-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: 2593.8 lumens
Efficiency: N/A
Efficacy: 129.7 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

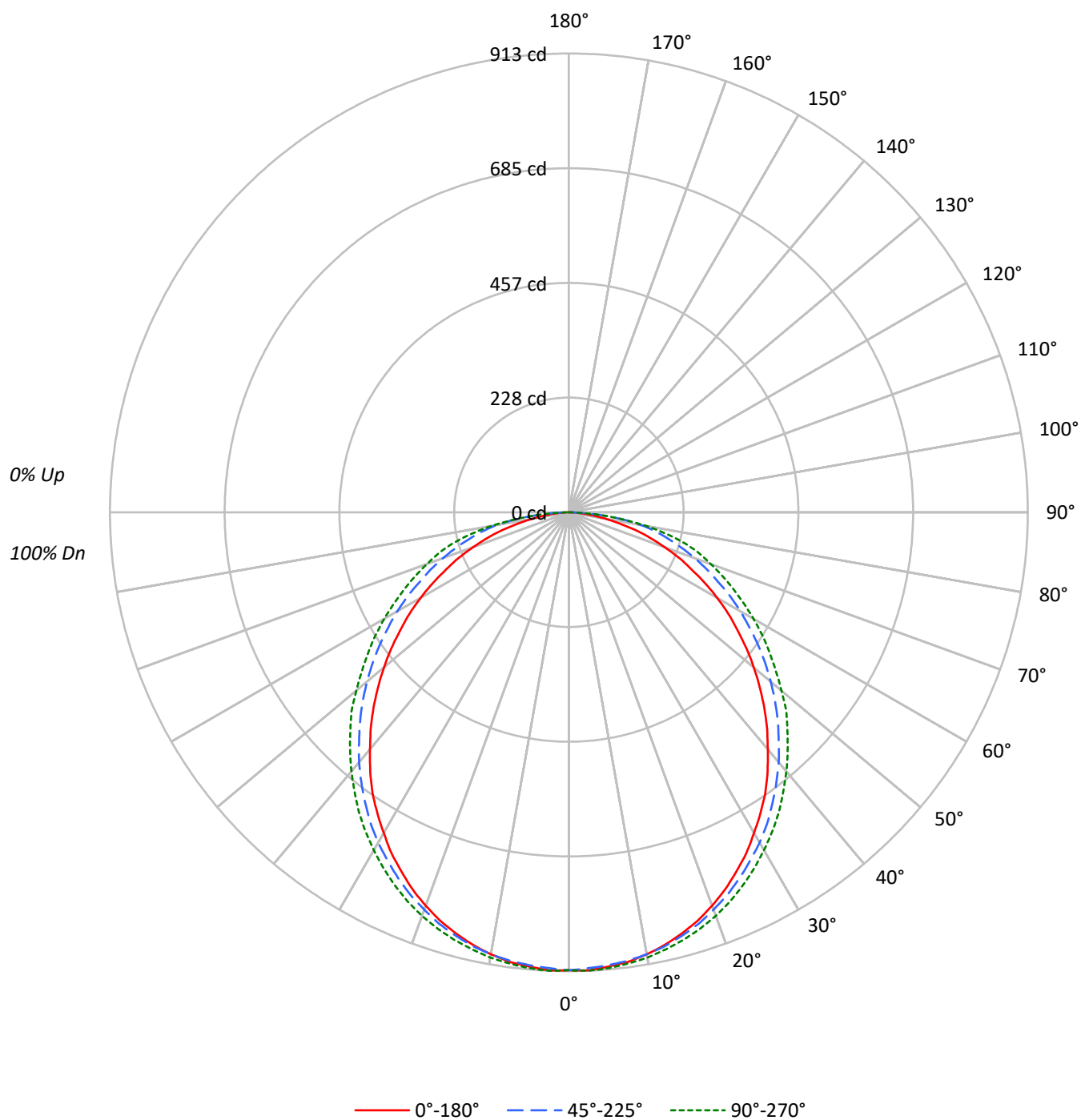
Input Watts (W): 19.995837
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	108	103	99	95	106	101	97	93		97	93	90		93	90	88		89	87	85
2	98	90	83	77	96	88	81	76		84	79	74		81	76	72		78	74	71
3	89	79	70	64	87	77	69	63		74	67	62		71	66	61		69	64	60
4	82	70	61	54	80	68	60	54		66	59	53		63	57	52		61	56	51
5	75	62	53	46	73	61	53	46		59	51	46		57	50	45		55	49	45
6	70	56	47	40	68	55	47	40		53	46	40		52	45	40		50	44	39
7	64	51	42	36	63	50	42	36		48	41	35		47	40	35		46	39	35
8	60	46	38	32	58	46	37	32		44	37	32		43	36	31		42	36	31
9	56	43	34	29	55	42	34	29		41	34	28		40	33	28		39	33	28
10	53	39	31	26	51	39	31	26		38	31	26		37	30	26		36	30	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1226	1226	1226
5°	1225	1222	1230
10°	1220	1220	1229
15°	1209	1214	1227
20°	1193	1204	1223
25°	1171	1193	1216
30°	1144	1179	1206
35°	1119	1160	1196
40°	1081	1140	1182
45°	1046	1118	1169
50°	1005	1097	1155
55°	961	1076	1144
60°	916	1060	1142
65°	858	1041	1149
70°	794	1047	1180
75°	711	1067	1247
80°	575	1130	1220
85°	432	993	966



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.3	3.3
10°-20°	246.5	9.5
20°-30°	370.5	14.3
30°-40°	441.4	17.0
40°-50°	451.7	17.4
50°-60°	406.7	15.7
60°-70°	319.4	12.3
70°-80°	207.3	8.0
80°-90°	64.1	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°	703.3	27.1
0°-40°	1144.7	44.1
0°-60°	2003.1	77.2
0°-90°	2593.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2593.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	911	911	911	911	911	
5°	907	909	905	910	910	86
15°	868	870	872	879	881	245
25°	788	795	803	816	819	363
35°	681	690	706	723	728	425
45°	550	563	587	610	615	424
55°	410	428	459	483	488	367
65°	269	290	327	354	361	268
75°	137	163	205	233	240	145
85°	28	52	64	63	63	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	911.2	911.2	911.2	911.2	911.2
2.5°	912.1	912.1	907.9	912.1	912.9
5°	907.1	908.8	904.6	909.6	910.4
7.5°	902.2	902.2	899.7	904.6	905.5
10°	893.1	893.9	893.1	898.9	899.7
12.5°	881.6	883.2	884.0	889.8	890.6
15°	867.6	870.0	871.7	879.1	880.7
17.5°	851.9	854.4	858.5	866.7	868.4
20°	833.0	836.3	841.2	851.9	854.4
22.5°	812.4	815.7	823.9	833.8	837.9
25°	788.5	795.1	803.3	816.5	819.0
27.5°	764.6	770.3	781.1	795.1	798.4
30°	736.6	745.6	758.8	772.8	776.1
32.5°	709.4	718.4	734.1	748.9	753.0
35°	681.4	689.6	706.1	723.4	728.3
37.5°	649.2	659.9	678.1	695.4	700.3
40°	615.5	628.6	649.2	667.4	673.1
42.5°	583.3	597.3	617.9	637.7	644.3
45°	549.5	562.7	587.4	609.7	614.6
47.5°	514.9	529.8	556.1	578.4	586.6
50°	480.3	496.0	524.0	547.1	552.0
52.5°	445.7	462.2	491.9	516.6	519.1
55°	409.5	427.6	458.9	482.8	487.7
57.5°	376.5	392.2	426.0	450.7	456.4
60°	340.3	357.6	393.8	416.9	424.3
62.5°	305.7	323.8	361.7	384.8	391.4
65°	269.4	290.0	327.1	354.3	360.9
67.5°	238.1	257.9	297.4	323.8	330.4
70°	201.9	224.1	266.1	293.3	299.9
72.5°	170.5	193.6	235.6	262.0	271.9
75°	136.8	163.1	205.2	233.2	239.8
77.5°	103.8	134.3	177.1	198.6	198.6
80°	74.2	106.3	145.8	155.7	157.4
82.5°	48.6	79.9	107.9	107.1	107.1
85°	28.0	51.9	64.3	62.6	62.6
87.5°	10.7	21.4	23.1	23.1	22.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)