

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: P276439

Luminaire Tested: **24CZ2-30-S-UNV-L93050-W2A1-U-4000K**

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: P276439
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-L93050-W2A1-U-4000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2767.6 lumens
Efficiency: N/A
Efficacy: 124.0 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

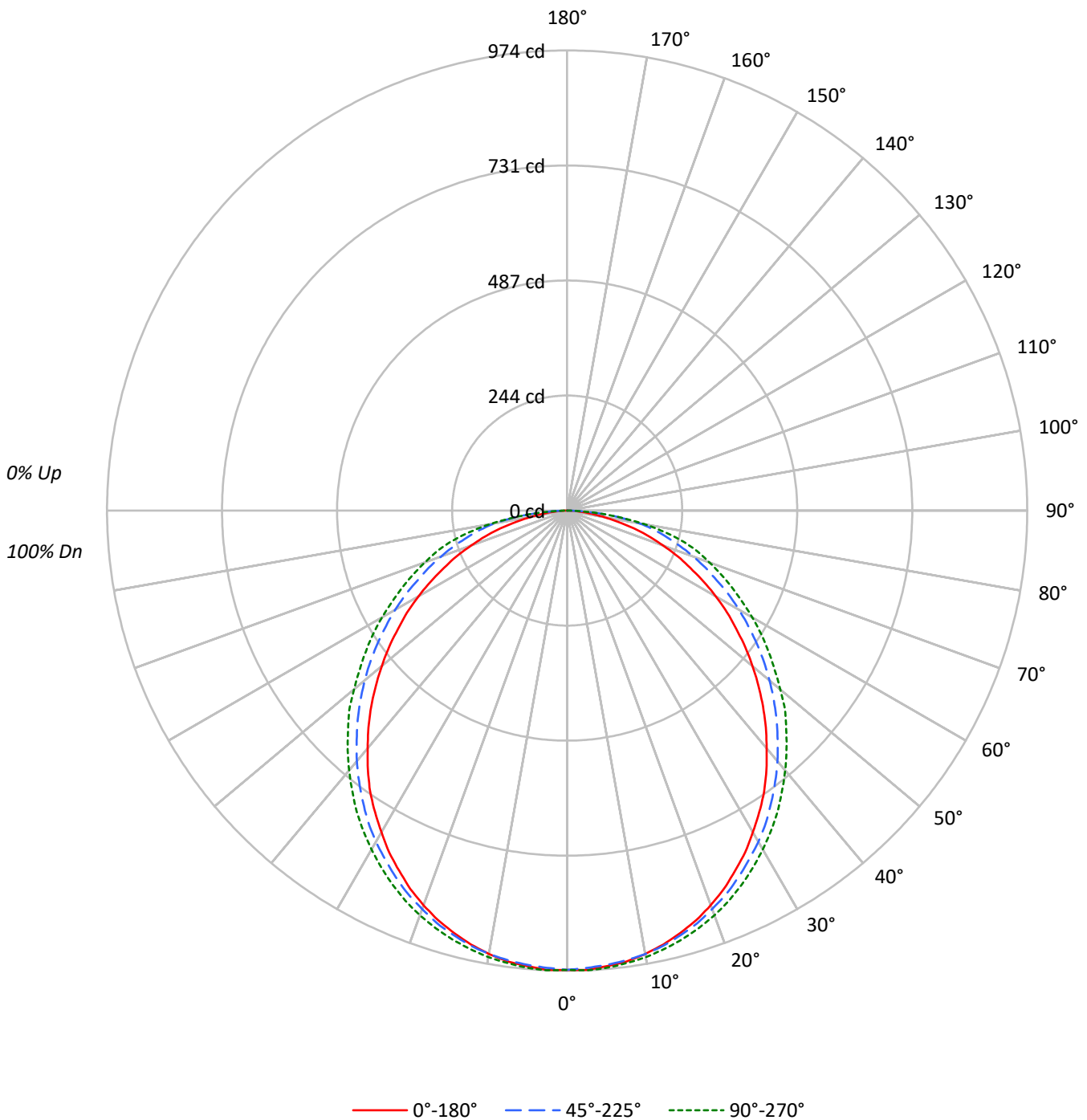
Input Watts (W): 22.327812
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1308	1308	1308
5°	1307	1304	1312
10°	1302	1302	1312
15°	1289	1296	1309
20°	1273	1285	1305
25°	1249	1272	1297
30°	1221	1258	1287
35°	1194	1237	1276
40°	1153	1217	1261
45°	1116	1193	1248
50°	1073	1170	1233
55°	1025	1148	1221
60°	977	1131	1218
65°	915	1111	1226
70°	847	1117	1259
75°	758	1138	1330
80°	613	1206	1301
85°	462	1059	1031



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.0	3.3
10°-20°	263.0	9.5
20°-30°	395.4	14.3
30°-40°	470.9	17.0
40°-50°	482.0	17.4
50°-60°	433.9	15.7
60°-70°	340.8	12.3
70°-80°	221.2	8.0
80°-90°	68.4	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°	750.4	27.1
0°-40°	1221.3	44.1
0°-60°	2137.2	77.2
0°-90°	2767.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2767.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	972	972	972	972	972	
5°	968	970	965	970	971	92
15°	926	928	930	938	940	261
25°	841	848	857	871	874	388
35°	727	736	753	772	777	454
45°	586	600	627	650	656	452
55°	437	456	490	515	520	392
65°	288	309	349	378	385	286
75°	146	174	219	249	256	154
85°	30	55	69	67	67	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	972.3	972.3	972.3	972.3	972.3
2.5°	973.1	973.1	968.7	973.1	974.0
5°	967.9	969.6	965.2	970.5	971.4
7.5°	962.6	962.6	960.0	965.2	966.1
10°	952.9	953.8	952.9	959.1	960.0
12.5°	940.6	942.4	943.3	949.4	950.3
15°	925.7	928.3	930.1	938.0	939.7
17.5°	909.0	911.6	916.0	924.8	926.6
20°	888.8	892.3	897.5	909.0	911.6
22.5°	866.8	870.3	879.1	889.6	894.0
25°	841.3	848.3	857.1	871.2	873.8
27.5°	815.8	821.9	833.4	848.3	851.8
30°	785.9	795.6	809.6	824.6	828.1
32.5°	756.9	766.6	783.3	799.1	803.5
35°	727.0	735.8	753.4	771.8	777.1
37.5°	692.7	704.1	723.5	741.9	747.2
40°	656.7	670.7	692.7	712.1	718.2
42.5°	622.4	637.3	659.3	680.4	687.4
45°	586.3	600.4	626.8	650.5	655.8
47.5°	549.4	565.3	593.4	617.1	625.9
50°	512.5	529.2	559.1	583.7	589.0
52.5°	475.6	493.2	524.8	551.2	553.8
55°	436.9	456.2	489.6	515.1	520.4
57.5°	401.7	418.4	454.5	480.9	487.0
60°	363.1	381.5	420.2	444.8	452.7
62.5°	326.1	345.5	385.9	410.5	417.6
65°	287.5	309.4	349.0	378.0	385.0
67.5°	254.1	275.2	317.3	345.5	352.5
70°	215.4	239.1	283.9	313.0	320.0
72.5°	182.0	206.6	251.4	279.5	290.1
75°	145.9	174.1	218.9	248.8	255.8
77.5°	110.8	143.3	189.0	211.9	211.9
80°	79.1	113.4	155.6	166.1	167.9
82.5°	51.9	85.3	115.2	114.3	114.3
85°	29.9	55.4	68.6	66.8	66.8
87.5°	11.4	22.9	24.6	24.6	23.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)