

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: P388512

Luminaire Tested: **24CZ2-30VHE-SQR-UNV-L930-CD1-SDWPD1-U**

Issue Date: 2/28/2020

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: P388512
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30VHE-SQR-UNV-L930-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2327.9 lumens
Efficiency: N/A
Efficacy: 114.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

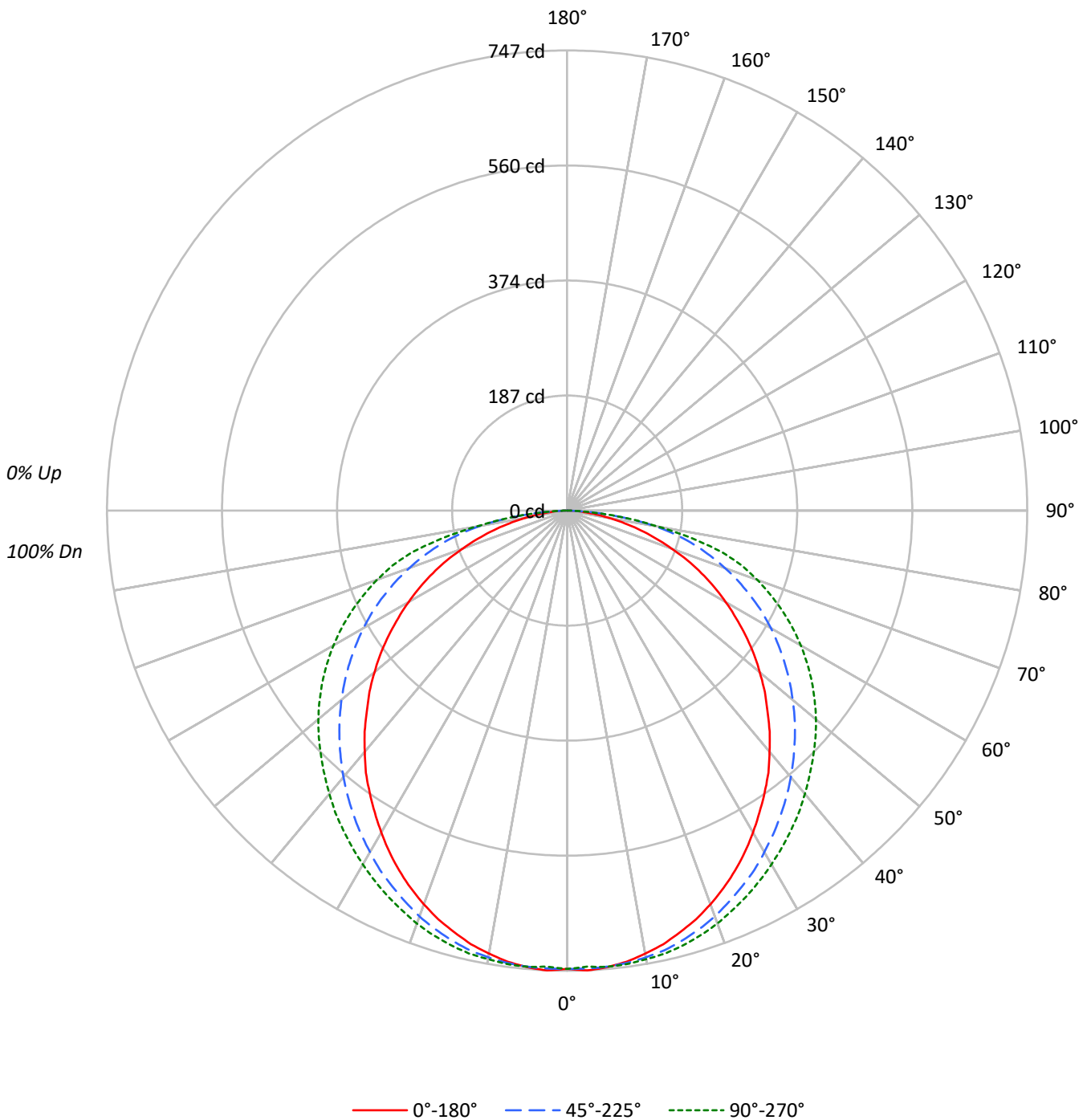
Input Watts (W): 20.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1001	1001	1001
5°	1005	1004	1004
10°	998	1006	1010
15°	987	1007	1017
20°	974	1004	1021
25°	957	999	1025
30°	937	995	1031
35°	918	992	1040
40°	898	992	1055
45°	875	995	1075
50°	854	1001	1104
55°	829	1012	1138
60°	801	1028	1179
65°	766	1047	1229
70°	710	1074	1291
75°	644	1111	1351
80°	542	1113	1161
85°	415	843	843



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.6	3.0
10°-20°	203.2	8.7
20°-30°	308.7	13.3
30°-40°	375.5	16.1
40°-50°	399.7	17.2
50°-60°	380.7	16.4
60°-70°	318.4	13.7
70°-80°	212.3	9.1
80°-90°	58.7	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°	582.5	25.0
0°-40°	958.0	41.2
0°-60°	1738.5	74.7
0°-90°	2327.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2327.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	744	744	744	744	744	
5°	744	740	743	743	743	71
15°	709	710	723	728	730	200
25°	645	653	673	684	690	297
35°	559	575	604	624	633	350
45°	460	484	523	552	565	355
55°	354	384	431	469	485	316
65°	241	276	329	370	386	238
75°	124	163	214	250	260	131
85°	27	50	55	54	55	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	744.1	744.1	744.1	744.1	744.1
2.5°	747.2	741.8	744.1	744.1	741.0
5°	744.1	739.5	743.3	743.3	743.3
7.5°	738.7	734.9	741.0	742.6	742.6
10°	730.3	728.7	736.4	738.7	739.5
12.5°	721.0	720.3	731.0	734.1	736.4
15°	708.7	710.3	722.6	728.0	730.3
17.5°	695.7	698.8	712.6	720.3	722.6
20°	680.3	684.9	701.1	708.7	713.4
22.5°	663.4	670.3	687.2	696.5	701.8
25°	644.9	653.4	672.6	684.2	690.3
27.5°	625.0	635.7	658.0	671.1	677.2
30°	603.4	615.7	640.3	655.7	663.4
32.5°	581.1	595.7	622.7	639.6	648.8
35°	558.9	575.0	604.2	624.2	633.4
37.5°	536.6	552.7	585.0	606.5	618.0
40°	511.2	530.4	565.0	588.8	600.4
42.5°	486.6	507.3	544.2	570.4	582.7
45°	459.7	484.3	522.7	551.9	565.0
47.5°	435.1	459.7	501.2	531.9	546.6
50°	408.2	434.3	478.1	512.0	527.3
52.5°	382.0	409.0	455.1	491.2	506.6
55°	353.6	384.4	431.2	468.9	485.1
57.5°	325.2	358.2	406.6	445.9	462.0
60°	297.5	331.3	382.0	421.3	438.2
62.5°	269.8	303.6	356.7	396.7	412.8
65°	240.6	276.0	329.0	369.7	385.9
67.5°	211.4	248.3	301.3	342.1	357.4
70°	180.6	219.9	272.9	312.9	328.2
72.5°	152.2	191.4	243.7	282.9	297.5
75°	123.8	163.0	213.7	249.8	259.8
77.5°	96.1	135.3	180.6	204.5	206.8
80°	70.0	106.9	143.7	150.7	149.9
82.5°	46.9	79.9	99.2	99.9	102.2
85°	26.9	50.0	54.6	53.8	54.6
87.5°	10.8	17.7	15.4	11.5	11.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)