

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: P388752

Luminaire Tested: **24CZ2-30VHE-UNV-L935-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: P388752
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30VHE-UNV-L935-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2483.8 lumens
Efficiency: N/A
Efficacy: 121.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

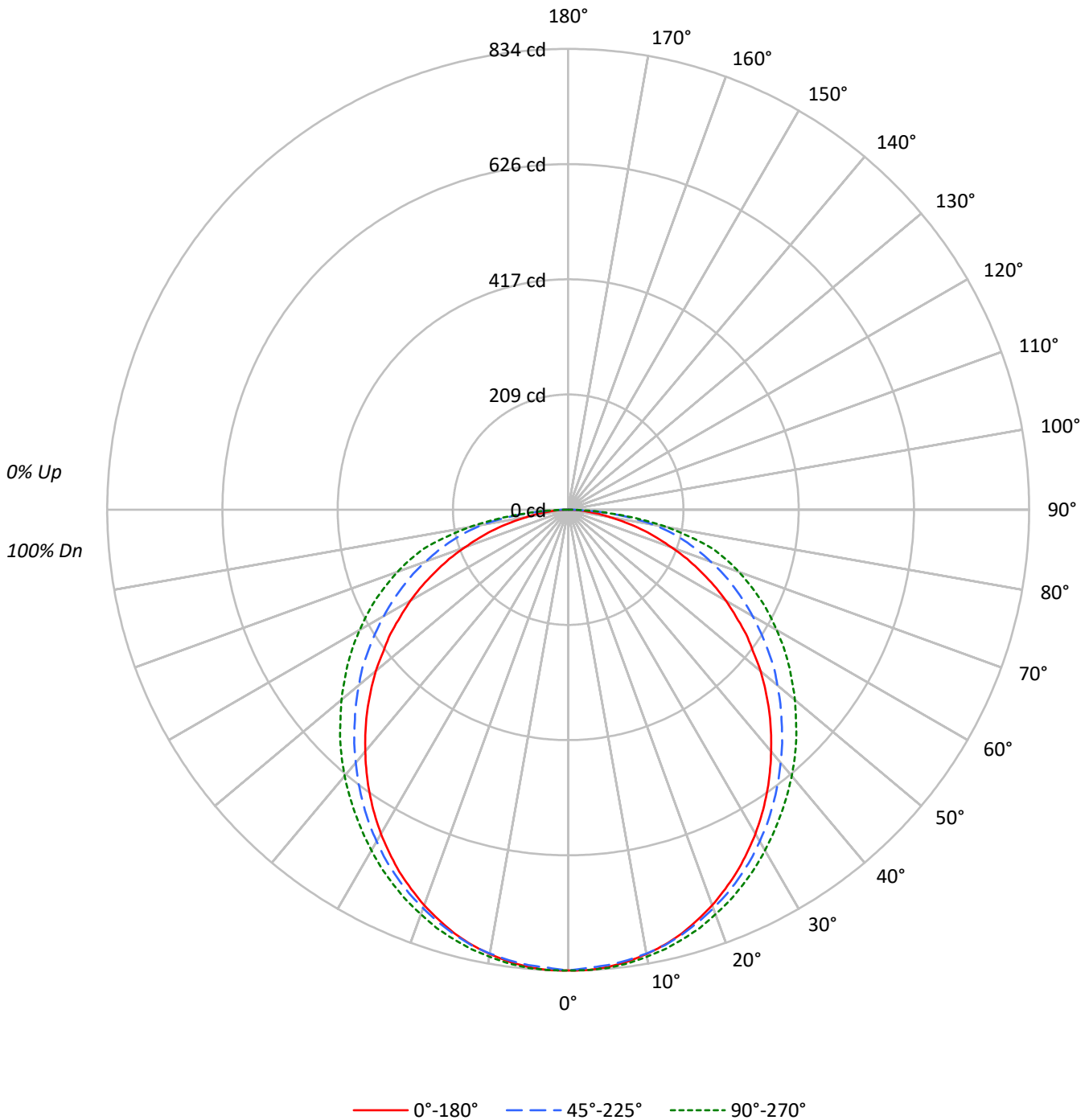
Input Watts (W): 20.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1122	1122	1122
5°	1122	1117	1124
10°	1116	1114	1122
15°	1106	1109	1120
20°	1091	1099	1116
25°	1073	1089	1111
30°	1052	1077	1106
35°	1029	1063	1103
40°	1003	1050	1105
45°	978	1040	1110
50°	951	1034	1121
55°	922	1033	1141
60°	886	1037	1171
65°	839	1053	1222
70°	779	1079	1292
75°	711	1133	1400
80°	584	1220	1400
85°	448	1125	1203



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.9	3.2
10°-20°	225.2	9.1
20°-30°	338.8	13.6
30°-40°	406.1	16.3
40°-50°	423.2	17.0
50°-60°	393.7	15.9
60°-70°	324.3	13.1
70°-80°	220.8	8.9
80°-90°	72.9	2.9
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°	642.9	25.9
0°-40°	1048.9	42.2
0°-60°	1865.8	75.1
0°-90°	2483.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2483.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	834	834	834	834	834	
5°	831	831	827	831	832	79
15°	794	795	796	803	804	224
25°	723	726	734	746	748	333
35°	627	634	647	665	672	392
45°	514	525	546	574	584	396
55°	393	406	440	475	487	350
65°	264	286	331	370	384	262
75°	137	167	218	257	269	144
85°	29	56	73	78	78	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	833.9	833.9	833.9	833.9	833.9
2.5°	833.9	833.9	829.8	833.9	833.9
5°	830.6	830.6	827.3	831.4	832.3
7.5°	824.8	825.6	822.3	827.3	828.1
10°	816.5	817.3	815.7	820.7	821.5
12.5°	806.6	807.4	807.4	813.2	814.0
15°	794.1	795.0	795.8	803.3	804.1
17.5°	778.4	780.9	782.5	791.7	793.3
20°	761.8	764.3	767.6	777.6	779.2
22.5°	742.7	746.1	751.9	762.6	765.1
25°	722.8	726.2	733.6	746.1	748.5
27.5°	700.5	705.4	714.6	727.8	731.1
30°	677.3	682.2	693.0	707.1	712.1
32.5°	652.4	659.0	671.5	687.2	692.2
35°	626.7	634.1	647.4	664.8	671.5
37.5°	599.3	607.6	623.4	642.4	650.7
40°	571.1	581.1	597.7	620.1	629.2
42.5°	543.0	552.1	572.8	596.8	606.8
45°	514.0	524.7	546.3	573.6	583.6
47.5°	484.1	494.9	520.6	549.6	558.7
50°	454.3	465.0	494.1	524.7	535.5
52.5°	421.9	436.0	469.2	499.9	510.6
55°	392.9	406.2	440.2	475.0	486.6
57.5°	359.8	375.5	412.8	449.3	461.7
60°	329.1	345.7	385.5	422.8	435.2
62.5°	297.6	315.8	358.1	396.2	410.3
65°	263.6	286.0	330.8	369.7	383.8
67.5°	232.9	256.1	303.4	343.2	355.6
70°	198.1	226.3	274.4	314.2	328.3
72.5°	168.3	196.5	247.0	286.0	300.1
75°	136.8	167.4	218.0	257.0	269.4
77.5°	105.3	139.3	189.8	219.7	223.8
80°	75.4	111.1	157.5	174.9	180.7
82.5°	53.1	85.4	116.1	127.7	131.0
85°	29.0	56.4	72.9	77.9	77.9
87.5°	12.4	24.0	29.0	29.8	30.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)