

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: P389688

Luminaire Tested: **24CZ2-30VHE-S-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: P389688
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30VHE-S-UNV-L935-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2609.9 lumens
Efficiency: N/A
Efficacy: 127.9 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

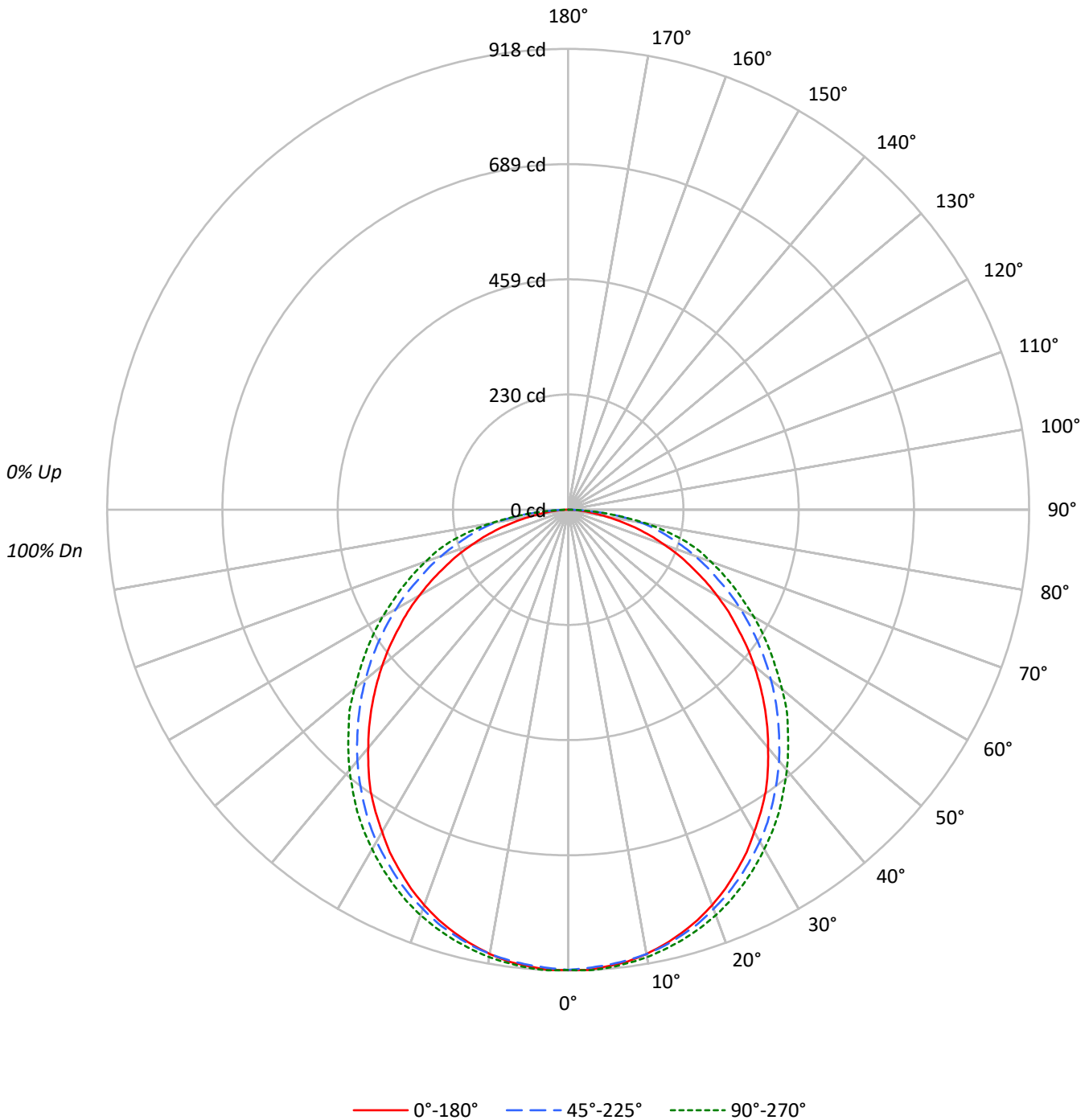
Input Watts (W): 20.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1234	1234	1234
5°	1233	1229	1237
10°	1228	1228	1237
15°	1216	1222	1234
20°	1200	1212	1231
25°	1178	1200	1223
30°	1151	1186	1213
35°	1126	1167	1204
40°	1088	1147	1190
45°	1052	1125	1177
50°	1012	1104	1163
55°	966	1083	1151
60°	921	1066	1149
65°	863	1048	1156
70°	799	1054	1187
75°	715	1073	1254
80°	578	1137	1227
85°	435	999	973



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.8	3.3
10°-20°	248.0	9.5
20°-30°	372.8	14.3
30°-40°	444.1	17.0
40°-50°	454.5	17.4
50°-60°	409.2	15.7
60°-70°	321.4	12.3
70°-80°	208.6	8.0
80°-90°	64.5	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°	707.6	27.1
0°-40°	1151.8	44.1
0°-60°	2015.5	77.2
0°-90°	2609.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2609.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	917	917	917	917	917	
5°	913	914	910	915	916	87
15°	873	875	877	884	886	246
25°	793	800	808	822	824	365
35°	686	694	710	728	733	428
45°	553	566	591	614	618	426
55°	412	430	462	486	491	369
65°	271	292	329	356	363	270
75°	138	164	206	235	241	146
85°	28	52	65	63	63	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	916.9	916.9	916.9	916.9	916.9
2.5°	917.7	917.7	913.6	917.7	918.5
5°	912.7	914.4	910.2	915.2	916.0
7.5°	907.8	907.8	905.3	910.2	911.1
10°	898.6	899.5	898.6	904.4	905.3
12.5°	887.0	888.7	889.5	895.3	896.1
15°	872.9	875.4	877.1	884.5	886.2
17.5°	857.2	859.7	863.8	872.1	873.8
20°	838.1	841.4	846.4	857.2	859.7
22.5°	817.4	820.7	829.0	838.9	843.1
25°	793.4	800.0	808.3	821.5	824.0
27.5°	769.3	775.1	785.9	800.0	803.3
30°	741.1	750.2	763.5	777.6	780.9
32.5°	713.8	722.9	738.6	753.6	757.7
35°	685.6	693.9	710.5	727.9	732.8
37.5°	653.3	664.0	682.3	699.7	704.7
40°	619.3	632.5	653.3	671.5	677.3
42.5°	586.9	601.0	621.8	641.6	648.3
45°	552.9	566.2	591.1	613.5	618.4
47.5°	518.1	533.0	559.6	582.0	590.2
50°	483.3	499.1	527.2	550.5	555.4
52.5°	448.5	465.1	494.9	519.8	522.3
55°	412.0	430.3	461.8	485.8	490.8
57.5°	378.9	394.6	428.6	453.5	459.3
60°	342.4	359.8	396.3	419.5	426.9
62.5°	307.6	325.8	363.9	387.1	393.8
65°	271.1	291.8	329.1	356.5	363.1
67.5°	239.6	259.5	299.3	325.8	332.4
70°	203.1	225.5	267.8	295.1	301.8
72.5°	171.6	194.8	237.1	263.6	273.6
75°	137.6	164.1	206.4	234.6	241.2
77.5°	104.5	135.1	178.2	199.8	199.8
80°	74.6	106.9	146.7	156.7	158.3
82.5°	48.9	80.4	108.6	107.8	107.8
85°	28.2	52.2	64.7	63.0	63.0
87.5°	10.8	21.6	23.2	23.2	22.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)