

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: P388563

Luminaire Tested: **24CZ2-35HE-SQR-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: P388563
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: 24CZ2-35HE-SQR-UNV-L935-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2838.6 lumens
Efficiency: N/A
Efficacy: 105.5 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

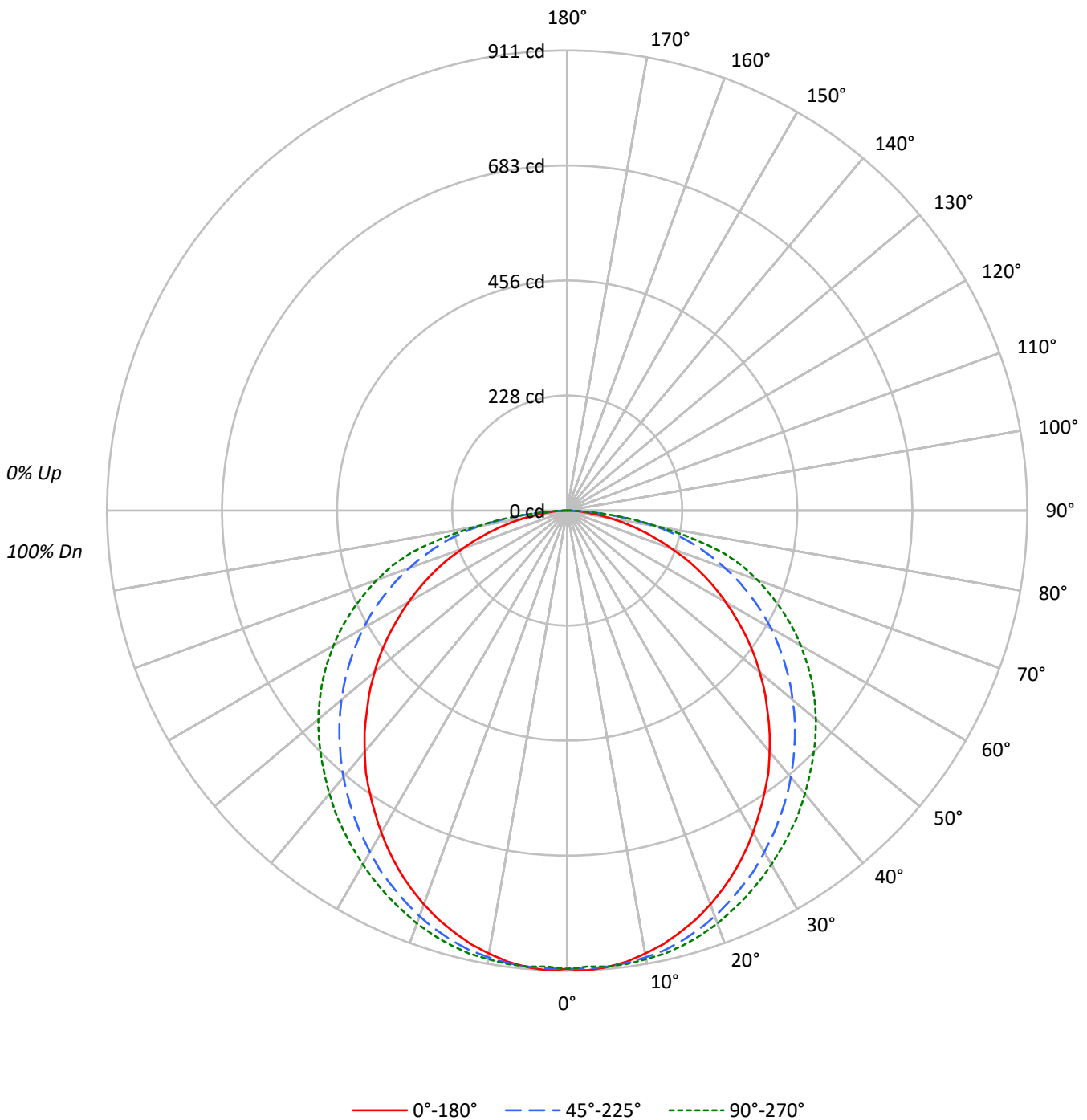
Input Watts (W): 26.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1221	1221	1221
5°	1226	1224	1224
10°	1217	1227	1232
15°	1204	1227	1240
20°	1188	1224	1246
25°	1167	1218	1250
30°	1143	1213	1257
35°	1119	1210	1269
40°	1095	1210	1286
45°	1067	1213	1311
50°	1042	1220	1346
55°	1012	1234	1388
60°	976	1254	1438
65°	934	1277	1498
70°	867	1309	1574
75°	784	1355	1647
80°	661	1358	1416
85°	506	1028	1028



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.1	3.0
10°-20°	247.8	8.7
20°-30°	376.4	13.3
30°-40°	457.8	16.1
40°-50°	487.4	17.2
50°-60°	464.3	16.4
60°-70°	388.3	13.7
70°-80°	258.9	9.1
80°-90°	71.6	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°	710.3	25.0
0°-40°	1168.2	41.2
0°-60°	2119.9	74.7
0°-90°	2838.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2838.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	907	907	907	907	907	
5°	907	902	906	906	906	86
15°	864	866	881	888	890	244
25°	786	797	820	834	842	362
35°	682	701	737	761	772	426
45°	560	590	637	673	689	433
55°	431	469	526	572	592	385
65°	293	336	401	451	470	290
75°	151	199	261	305	317	160
85°	33	61	67	66	67	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	907.4	907.4	907.4	907.4	907.4
2.5°	911.1	904.5	907.4	907.4	903.6
5°	907.4	901.7	906.4	906.4	906.4
7.5°	900.8	896.1	903.6	905.5	905.5
10°	890.5	888.6	898.0	900.8	901.7
12.5°	879.2	878.3	891.4	895.2	898.0
15°	864.2	866.1	881.1	887.7	890.5
17.5°	848.3	852.1	868.9	878.3	881.1
20°	829.6	835.2	854.9	864.2	869.9
22.5°	808.9	817.4	838.0	849.2	855.8
25°	786.4	796.7	820.2	834.2	841.7
27.5°	762.1	775.2	802.4	818.3	825.8
30°	735.8	750.8	780.8	799.6	808.9
32.5°	708.6	726.4	759.3	779.9	791.1
35°	681.5	701.1	736.8	761.1	772.4
37.5°	654.3	674.0	713.3	739.6	753.6
40°	623.3	646.8	689.0	718.0	732.1
42.5°	593.3	618.7	663.6	695.5	710.5
45°	560.5	590.5	637.4	673.0	689.0
47.5°	530.5	560.5	611.2	648.6	666.5
50°	497.7	529.6	583.0	624.3	643.0
52.5°	465.9	498.7	554.9	599.0	617.7
55°	431.2	468.7	525.9	571.8	591.5
57.5°	396.5	436.8	495.9	543.7	563.3
60°	362.8	404.0	465.9	513.7	534.3
62.5°	329.0	370.3	434.9	483.7	503.4
65°	293.4	336.5	401.2	450.9	470.5
67.5°	257.8	302.8	367.4	417.1	435.9
70°	220.3	268.1	332.8	381.5	400.2
72.5°	185.6	233.4	297.1	344.9	362.8
75°	150.9	198.7	260.6	304.6	316.8
77.5°	117.2	165.0	220.3	249.3	252.1
80°	85.3	130.3	175.3	183.7	182.8
82.5°	57.2	97.5	120.9	121.9	124.7
85°	32.8	60.9	66.6	65.6	66.6
87.5°	13.1	21.6	18.7	14.1	14.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)