

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: P388540

Luminaire Tested: **24CZ2-35-SQR-UNV-L935-CD1-SWPD1-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: P388540
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: 24CZ2-35-SQR-UNV-L935-CD1-SWPD1-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: 2917.3 lumens
Efficiency: N/A
Efficacy: 96.9 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

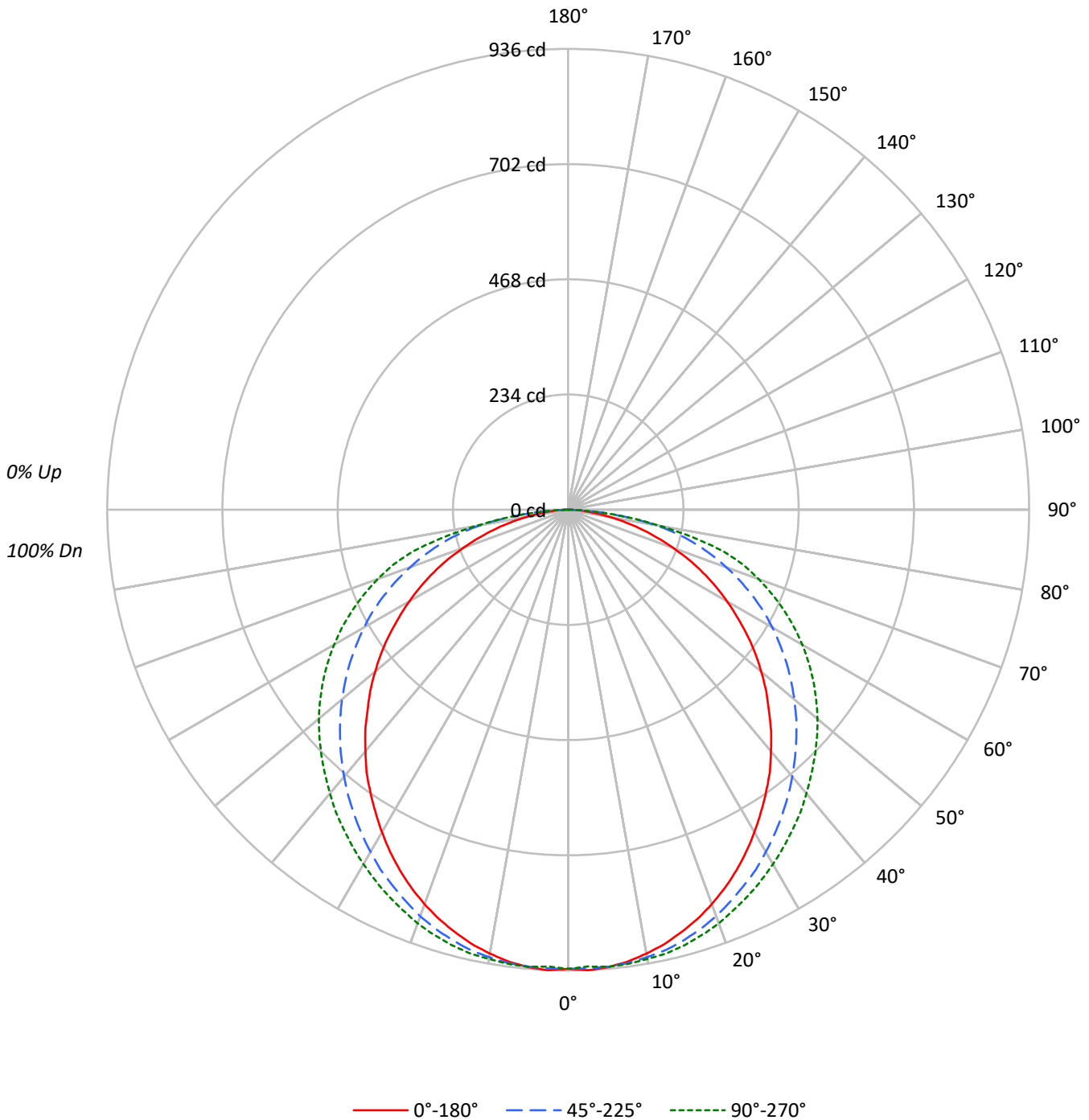
Input Watts (W): 30.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1255	1255	1255
5°	1259	1258	1258
10°	1250	1261	1266
15°	1237	1261	1275
20°	1221	1258	1280
25°	1200	1251	1284
30°	1175	1247	1292
35°	1150	1244	1304
40°	1125	1244	1322
45°	1096	1247	1347
50°	1071	1254	1383
55°	1039	1268	1426
60°	1003	1288	1478
65°	960	1313	1540
70°	891	1345	1618
75°	806	1392	1693
80°	680	1395	1456
85°	520	1056	1056



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.5	3.0
10°-20°	254.7	8.7
20°-30°	386.8	13.3
30°-40°	470.5	16.1
40°-50°	501.0	17.2
50°-60°	477.1	16.4
60°-70°	399.0	13.7
70°-80°	266.0	9.1
80°-90°	73.6	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°	730.0	25.0
0°-40°	1200.5	41.2
0°-60°	2178.6	74.7
0°-90°	2917.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2917.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	932	932	932	932	932	
5°	932	927	932	932	932	88
15°	888	890	906	912	915	250
25°	808	819	843	857	865	372
35°	700	721	757	782	794	438
45°	576	607	655	692	708	445
55°	443	482	540	588	608	396
65°	302	346	412	463	484	298
75°	155	204	268	313	326	164
85°	34	63	68	67	68	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	932.5	932.5	932.5	932.5	932.5
2.5°	936.4	929.6	932.5	932.5	928.7
5°	932.5	926.7	931.5	931.5	931.5
7.5°	925.8	921.0	928.7	930.6	930.6
10°	915.2	913.2	922.9	925.8	926.7
12.5°	903.6	902.6	916.1	920.0	922.9
15°	888.2	890.1	905.5	912.3	915.2
17.5°	871.8	875.7	893.0	902.6	905.5
20°	852.6	858.3	878.6	888.2	894.0
22.5°	831.4	840.0	861.2	872.8	879.5
25°	808.2	818.8	842.9	857.4	865.1
27.5°	783.2	796.7	824.6	841.0	848.7
30°	756.2	771.6	802.5	821.7	831.4
32.5°	728.3	746.6	780.3	801.5	813.1
35°	700.3	720.6	757.2	782.2	793.8
37.5°	672.4	692.6	733.1	760.1	774.5
40°	640.6	664.7	708.1	737.9	752.4
42.5°	609.8	635.8	682.0	714.8	730.2
45°	576.1	606.9	655.1	691.7	708.1
47.5°	545.2	576.1	628.1	666.6	684.9
50°	511.5	544.3	599.2	641.6	660.8
52.5°	478.8	512.5	570.3	615.6	634.8
55°	443.1	481.7	540.4	587.6	607.9
57.5°	407.5	448.9	509.6	558.7	579.0
60°	372.8	415.2	478.8	527.9	549.1
62.5°	338.1	380.5	447.0	497.1	517.3
65°	301.5	345.8	412.3	463.4	483.6
67.5°	264.9	311.2	377.6	428.7	448.0
70°	226.4	275.5	342.0	392.1	411.3
72.5°	190.7	239.9	305.4	354.5	372.8
75°	155.1	204.2	267.8	313.1	325.6
77.5°	120.4	169.5	226.4	256.2	259.1
80°	87.7	133.9	180.1	188.8	187.9
82.5°	58.8	100.2	124.3	125.2	128.1
85°	33.7	62.6	68.4	67.4	68.4
87.5°	13.5	22.2	19.3	14.5	14.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)