

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: P388567

Luminaire Tested: **24CZ2-35HE-SQR-UNV-L940-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: P388567
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-L940-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2903.0 lumens
Efficiency: N/A
Efficacy: 107.9 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

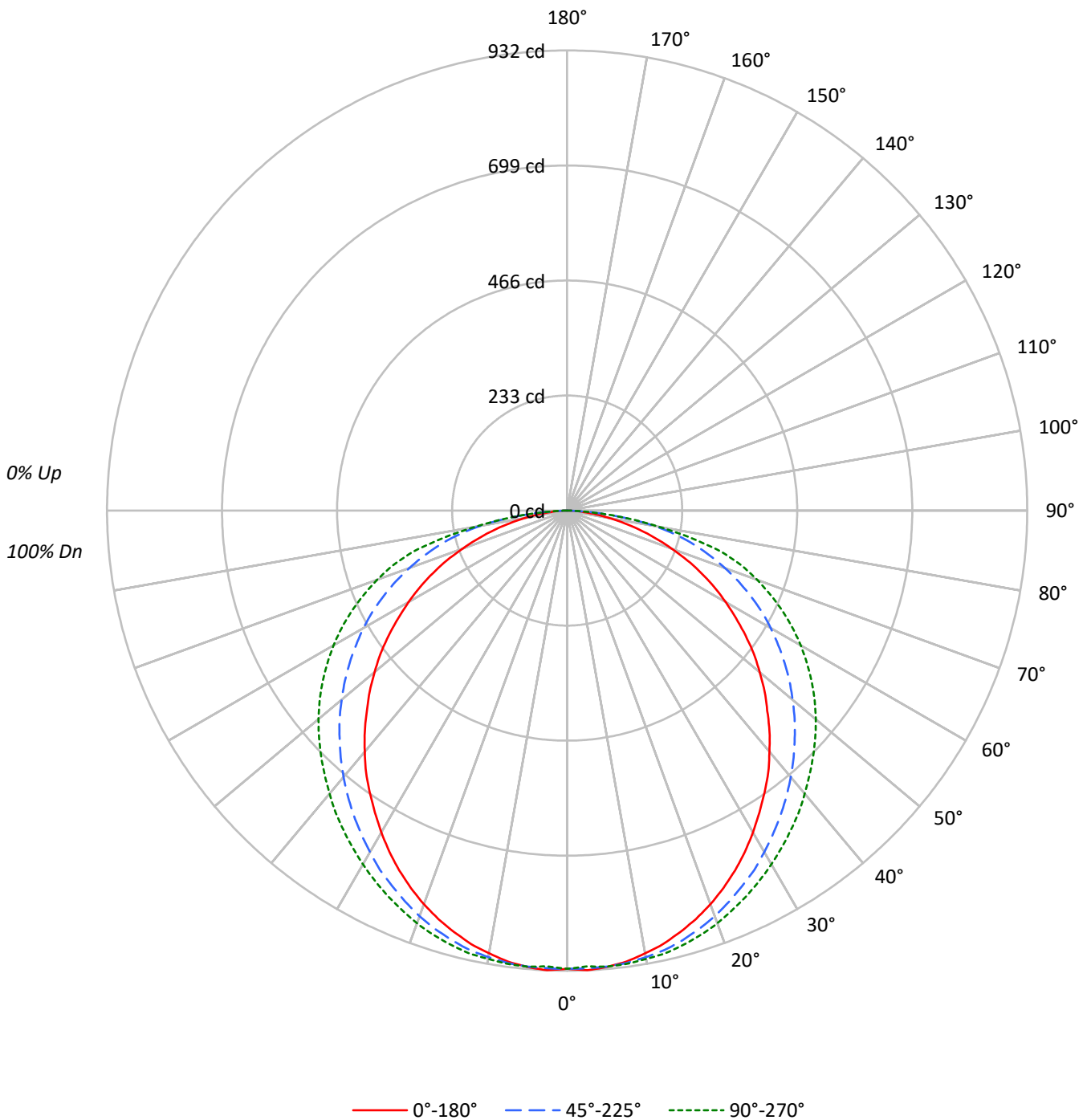
Input Watts (W): 26.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1248	1248	1248
5°	1253	1252	1252
10°	1244	1255	1260
15°	1231	1255	1269
20°	1215	1252	1274
25°	1194	1245	1278
30°	1169	1241	1285
35°	1145	1238	1297
40°	1120	1238	1315
45°	1091	1240	1341
50°	1065	1248	1376
55°	1034	1262	1419
60°	998	1282	1470
65°	955	1306	1532
70°	886	1339	1610
75°	802	1385	1684
80°	676	1389	1448
85°	519	1051	1051



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.1	3.0
10°-20°	253.4	8.7
20°-30°	384.9	13.3
30°-40°	468.2	16.1
40°-50°	498.5	17.2
50°-60°	474.8	16.4
60°-70°	397.1	13.7
70°-80°	264.7	9.1
80°-90°	73.3	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°	726.4	25.0
0°-40°	1194.7	41.2
0°-60°	2168.0	74.7
0°-90°	2903.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2903.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	928	928	928	928	928	
5°	928	922	927	927	927	88
15°	884	886	901	908	911	249
25°	804	815	839	853	861	370
35°	697	717	754	778	790	436
45°	573	604	652	688	705	443
55°	441	479	538	585	605	394
65°	300	344	410	461	481	296
75°	154	203	266	312	324	163
85°	34	62	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°	927.9	927.9	927.9	927.9	927.9
2.5°	931.8	925.1	927.9	927.9	924.1
5°	927.9	922.2	927.0	927.0	927.0
7.5°	921.2	916.4	924.1	926.0	926.0
10°	910.7	908.8	918.4	921.2	922.2
12.5°	899.2	898.2	911.6	915.5	918.4
15°	883.8	885.8	901.1	907.8	910.7
17.5°	867.5	871.4	888.6	898.2	901.1
20°	848.4	854.1	874.3	883.8	889.6
22.5°	827.3	835.9	857.0	868.5	875.2
25°	804.3	814.8	838.8	853.2	860.8
27.5°	779.4	792.8	820.6	836.9	844.5
30°	752.5	767.9	798.5	817.7	827.3
32.5°	724.7	742.9	776.5	797.6	809.1
35°	696.9	717.0	753.5	778.4	789.9
37.5°	669.1	689.2	729.5	756.3	770.7
40°	637.5	661.4	704.6	734.3	748.7
42.5°	606.8	632.7	678.7	711.3	726.6
45°	573.3	603.9	651.9	688.3	704.6
47.5°	542.6	573.3	625.0	663.4	681.6
50°	509.0	541.6	596.3	638.4	657.6
52.5°	476.4	510.0	567.5	612.6	631.7
55°	441.0	479.3	537.8	584.8	604.9
57.5°	405.5	446.7	507.1	556.0	576.1
60°	371.0	413.2	476.4	525.3	546.4
62.5°	336.5	378.7	444.8	494.6	514.8
65°	300.0	344.1	410.3	461.1	481.2
67.5°	263.6	309.6	375.8	426.6	445.8
70°	225.3	274.2	340.3	390.2	409.3
72.5°	189.8	238.7	303.9	352.8	371.0
75°	154.3	203.2	266.5	311.6	324.0
77.5°	119.8	168.7	225.3	255.0	257.9
80°	87.2	133.2	179.3	187.9	186.9
82.5°	58.5	99.7	123.7	124.6	127.5
85°	33.6	62.3	68.1	67.1	68.1
87.5°	13.4	22.0	19.2	14.4	14.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)