

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: P388779

Luminaire Tested: **24CZ2-35VHE-UNV-L940-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: P388779
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: 24CZ2-35VHE-UNV-L940-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2938.8 lumens
Efficiency: N/A
Efficacy: 128.9 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

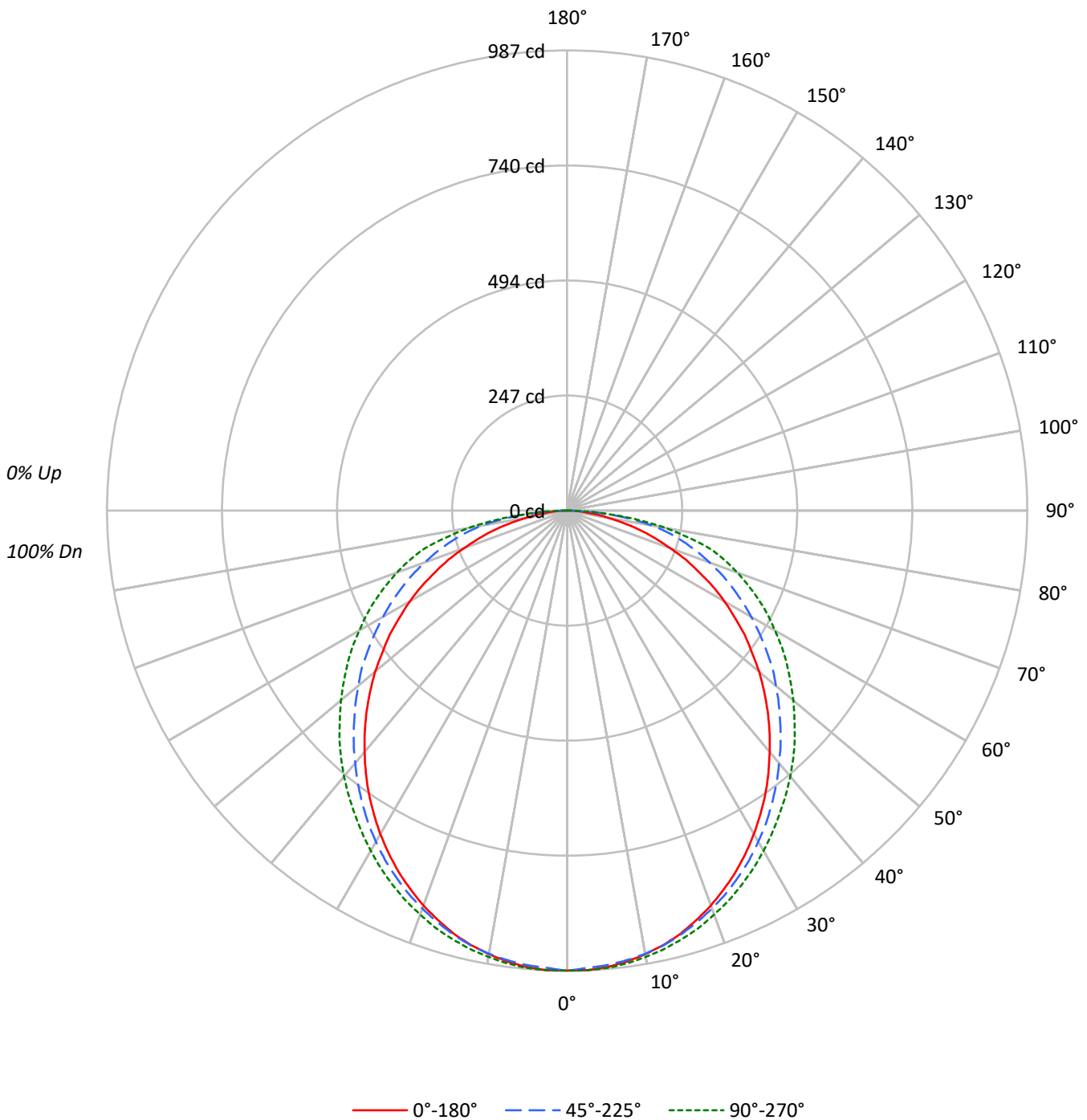
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1328	1328	1328
5°	1327	1322	1330
10°	1320	1319	1328
15°	1309	1312	1325
20°	1291	1300	1320
25°	1270	1289	1315
30°	1245	1274	1309
35°	1218	1258	1305
40°	1187	1242	1307
45°	1157	1230	1314
50°	1125	1224	1326
55°	1091	1222	1350
60°	1048	1227	1386
65°	993	1246	1446
70°	922	1277	1528
75°	841	1341	1657
80°	692	1444	1657
85°	530	1332	1423



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.3	3.2
10°-20°	266.4	9.1
20°-30°	400.9	13.6
30°-40°	480.4	16.3
40°-50°	500.7	17.0
50°-60°	465.8	15.9
60°-70°	383.7	13.1
70°-80°	261.3	8.9
80°-90°	86.3	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°	760.6	25.9
0°-40°	1241.1	42.2
0°-60°	2207.6	75.1
0°-90°	2938.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2938.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	987	987	987	987	987	
5°	983	983	979	984	985	93
15°	940	941	942	950	951	265
25°	855	859	868	883	886	394
35°	742	750	766	787	794	463
45°	608	621	646	679	690	469
55°	465	481	521	562	576	414
65°	312	338	391	437	454	310
75°	162	198	258	304	319	171
85°	34	67	86	92	92	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	986.7	986.7	986.7	986.7	986.7
2.5°	986.7	986.7	981.8	986.7	986.7
5°	982.8	982.8	978.8	983.7	984.7
7.5°	975.9	976.9	973.0	978.8	979.8
10°	966.1	967.1	965.1	971.0	972.0
12.5°	954.3	955.3	955.3	962.2	963.2
15°	939.6	940.6	941.6	950.4	951.4
17.5°	921.0	923.9	925.9	936.7	938.6
20°	901.4	904.3	908.2	920.0	922.0
22.5°	878.8	882.7	889.6	902.3	905.3
25°	855.3	859.2	868.0	882.7	885.7
27.5°	828.8	834.7	845.5	861.1	865.1
30°	801.3	807.2	820.0	836.6	842.5
32.5°	771.9	779.7	794.5	813.1	819.0
35°	741.5	750.3	766.0	786.6	794.5
37.5°	709.1	718.9	737.6	760.1	769.9
40°	675.8	687.5	707.2	733.6	744.4
42.5°	642.4	653.2	677.7	706.2	718.0
45°	608.1	620.9	646.4	678.7	690.5
47.5°	572.8	585.5	615.9	650.3	661.1
50°	537.5	550.2	584.6	620.9	633.6
52.5°	499.2	515.9	555.1	591.4	604.2
55°	464.9	480.6	520.8	562.0	575.7
57.5°	425.7	444.3	488.4	531.6	546.3
60°	389.4	409.0	456.1	500.2	514.9
62.5°	352.1	373.7	423.7	468.8	485.5
65°	311.9	338.4	391.3	437.4	454.1
67.5°	275.6	303.1	359.0	406.1	420.8
70°	234.4	267.8	324.6	371.7	388.4
72.5°	199.1	232.5	292.3	338.4	355.1
75°	161.8	198.1	258.0	304.1	318.8
77.5°	124.6	164.8	224.6	259.9	264.8
80°	89.3	131.4	186.4	207.0	213.8
82.5°	62.8	101.0	137.3	151.0	155.0
85°	34.3	66.7	86.3	92.2	92.2
87.5°	14.7	28.4	34.3	35.3	36.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)