

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: P388777

Luminaire Tested: **24CZ2-35VHE-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: P388777
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-L935-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2944.2 lumens
Efficiency: N/A
Efficacy: 129.1 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

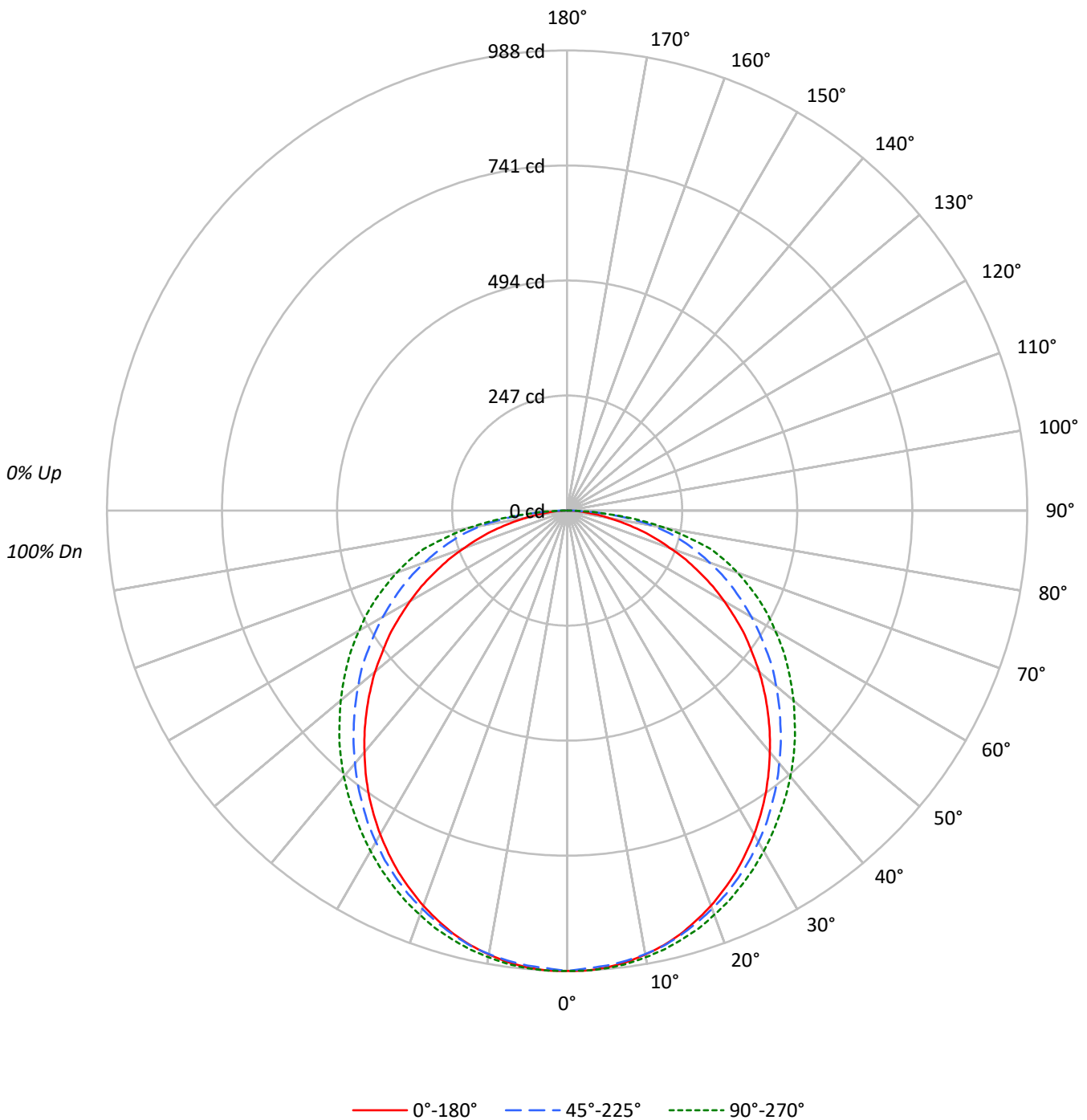
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1330	1330	1330
5°	1330	1324	1332
10°	1322	1321	1330
15°	1311	1314	1328
20°	1293	1303	1323
25°	1272	1291	1317
30°	1247	1276	1311
35°	1220	1260	1307
40°	1189	1244	1310
45°	1159	1232	1316
50°	1127	1226	1329
55°	1093	1224	1353
60°	1050	1230	1388
65°	995	1248	1448
70°	924	1279	1531
75°	843	1343	1660
80°	693	1447	1660
85°	531	1335	1426



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.5	3.2
10°-20°	266.9	9.1
20°-30°	401.6	13.6
30°-40°	481.3	16.3
40°-50°	501.6	17.0
50°-60°	466.7	15.9
60°-70°	384.4	13.1
70°-80°	261.8	8.9
80°-90°	86.4	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°	762.0	25.9
0°-40°	1243.4	42.2
0°-60°	2211.6	75.1
0°-90°	2944.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2944.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	988	988	988	988	988	
5°	985	985	981	986	986	93
15°	941	942	943	952	953	265
25°	857	861	870	884	887	394
35°	743	752	767	788	796	464
45°	609	622	648	680	692	470
55°	466	482	522	563	577	415
65°	312	339	392	438	455	310
75°	162	198	258	305	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°	988.5	988.5	988.5	988.5	988.5
2.5°	988.5	988.5	983.6	988.5	988.5
5°	984.6	984.6	980.6	985.6	986.5
7.5°	977.7	978.7	974.7	980.6	981.6
10°	967.9	968.9	966.9	972.8	973.8
12.5°	956.1	957.1	957.1	963.9	964.9
15°	941.3	942.3	943.3	952.1	953.1
17.5°	922.7	925.6	927.6	938.4	940.4
20°	903.0	906.0	909.9	921.7	923.7
22.5°	880.4	884.3	891.2	904.0	906.9
25°	856.8	860.8	869.6	884.3	887.3
27.5°	830.3	836.2	847.0	862.7	866.7
30°	802.8	808.7	821.5	838.2	844.1
32.5°	773.3	781.2	795.9	814.6	820.5
35°	742.9	751.7	767.4	788.1	795.9
37.5°	710.4	720.3	738.9	761.5	771.3
40°	677.0	688.8	708.5	735.0	745.8
42.5°	643.6	654.4	679.0	707.5	719.3
45°	609.2	622.0	647.5	680.0	691.8
47.5°	573.8	586.6	617.1	651.5	662.3
50°	538.5	551.2	585.6	622.0	634.8
52.5°	500.1	516.9	556.2	592.5	605.3
55°	465.8	481.5	521.8	563.0	576.8
57.5°	426.5	445.1	489.3	532.6	547.3
60°	390.1	409.7	456.9	501.1	515.9
62.5°	352.8	374.4	424.5	469.7	486.4
65°	312.5	339.0	392.1	438.2	454.9
67.5°	276.1	303.6	359.6	406.8	421.5
70°	234.8	268.3	325.2	372.4	389.1
72.5°	199.5	232.9	292.8	339.0	355.7
75°	162.1	198.5	258.4	304.6	319.3
77.5°	124.8	165.1	225.0	260.4	265.3
80°	89.4	131.7	186.7	207.3	214.2
82.5°	62.9	101.2	137.6	151.3	155.3
85°	34.4	66.8	86.5	92.4	92.4
87.5°	14.7	28.5	34.4	35.4	36.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)