

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: P388780

Luminaire Tested: **24CZ2-35VHE-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: P388780
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-SWPD1-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: 2974.6 lumens
Efficiency: N/A
Efficacy: 130.5 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

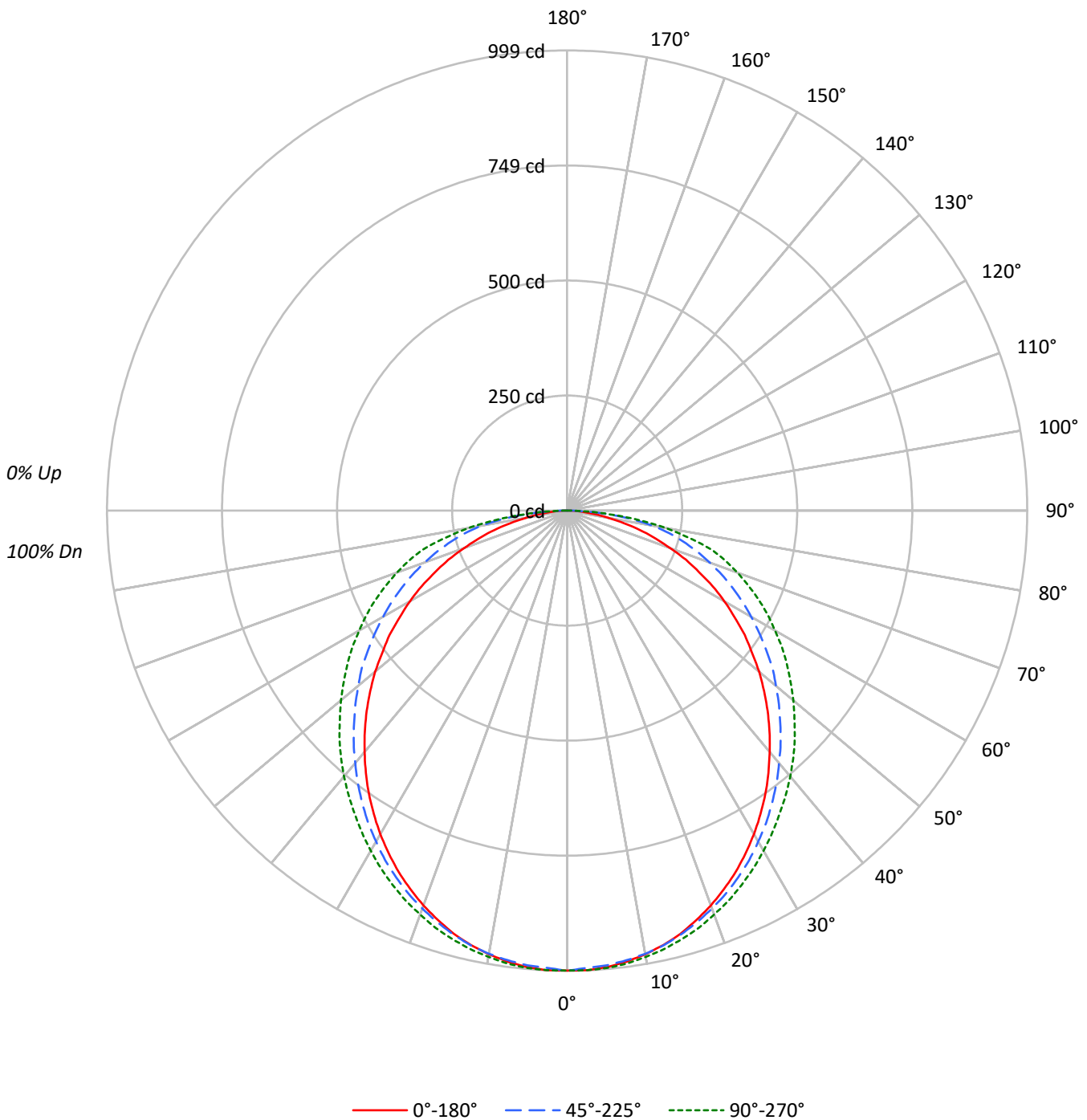
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1344	1344	1344
5°	1343	1338	1346
10°	1336	1335	1344
15°	1325	1327	1341
20°	1306	1316	1336
25°	1285	1304	1331
30°	1260	1289	1325
35°	1233	1273	1321
40°	1201	1257	1323
45°	1171	1245	1330
50°	1139	1239	1342
55°	1104	1237	1367
60°	1061	1242	1403
65°	1005	1261	1463
70°	934	1293	1546
75°	852	1357	1677
80°	700	1461	1677
85°	536	1349	1440



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.5	3.2
10°-20°	269.7	9.1
20°-30°	405.8	13.6
30°-40°	486.3	16.3
40°-50°	506.8	17.0
50°-60°	471.5	15.9
60°-70°	388.3	13.1
70°-80°	264.5	8.9
80°-90°	87.3	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°	769.9	25.9
0°-40°	1256.2	42.2
0°-60°	2234.5	75.1
0°-90°	2974.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2974.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	999	999	999	999	999	
5°	995	995	991	996	997	94
15°	951	952	953	962	963	268
25°	866	870	879	894	896	399
35°	750	760	775	796	804	469
45°	616	628	654	687	699	475
55°	471	486	527	569	583	419
65°	316	342	396	443	460	313
75°	164	200	261	308	323	173
85°	35	68	87	93	93	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	998.7	998.7	998.7	998.7	998.7
2.5°	998.7	998.7	993.7	998.7	998.7
5°	994.7	994.7	990.8	995.7	996.7
7.5°	987.8	988.8	984.8	990.8	991.8
10°	977.9	978.9	976.9	982.8	983.8
12.5°	966.0	966.9	966.9	973.9	974.9
15°	951.1	952.1	953.0	962.0	963.0
17.5°	932.2	935.2	937.2	948.1	950.1
20°	912.3	915.3	919.3	931.2	933.2
22.5°	889.5	893.5	900.4	913.3	916.3
25°	865.7	869.7	878.6	893.5	896.5
27.5°	838.9	844.8	855.8	871.6	875.6
30°	811.1	817.0	829.9	846.8	852.8
32.5°	781.3	789.2	804.1	823.0	829.0
35°	750.5	759.5	775.3	796.2	804.1
37.5°	717.8	727.7	746.6	769.4	779.3
40°	684.0	695.9	715.8	742.6	753.5
42.5°	650.3	661.2	686.0	714.8	726.7
45°	615.5	628.4	654.2	687.0	698.9
47.5°	579.8	592.7	623.5	658.2	669.1
50°	544.0	556.9	591.7	628.4	641.3
52.5°	505.3	522.2	561.9	598.6	611.5
55°	470.6	486.4	527.2	568.8	582.7
57.5°	430.9	449.7	494.4	538.1	553.0
60°	394.1	414.0	461.6	506.3	521.2
62.5°	356.4	378.2	428.9	474.5	491.4
65°	315.7	342.5	396.1	442.8	459.6
67.5°	279.0	306.8	363.3	411.0	425.9
70°	237.3	271.0	328.6	376.3	393.1
72.5°	201.5	235.3	295.8	342.5	359.4
75°	163.8	200.5	261.1	307.8	322.6
77.5°	126.1	166.8	227.3	263.1	268.0
80°	90.3	133.0	188.6	209.5	216.4
82.5°	63.5	102.3	139.0	152.9	156.9
85°	34.7	67.5	87.4	93.3	93.3
87.5°	14.9	28.8	34.7	35.7	36.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)