

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: P388775

Luminaire Tested: **24CZ2-35VHE-UNV-L930-CD1-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: P388775
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-L930-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

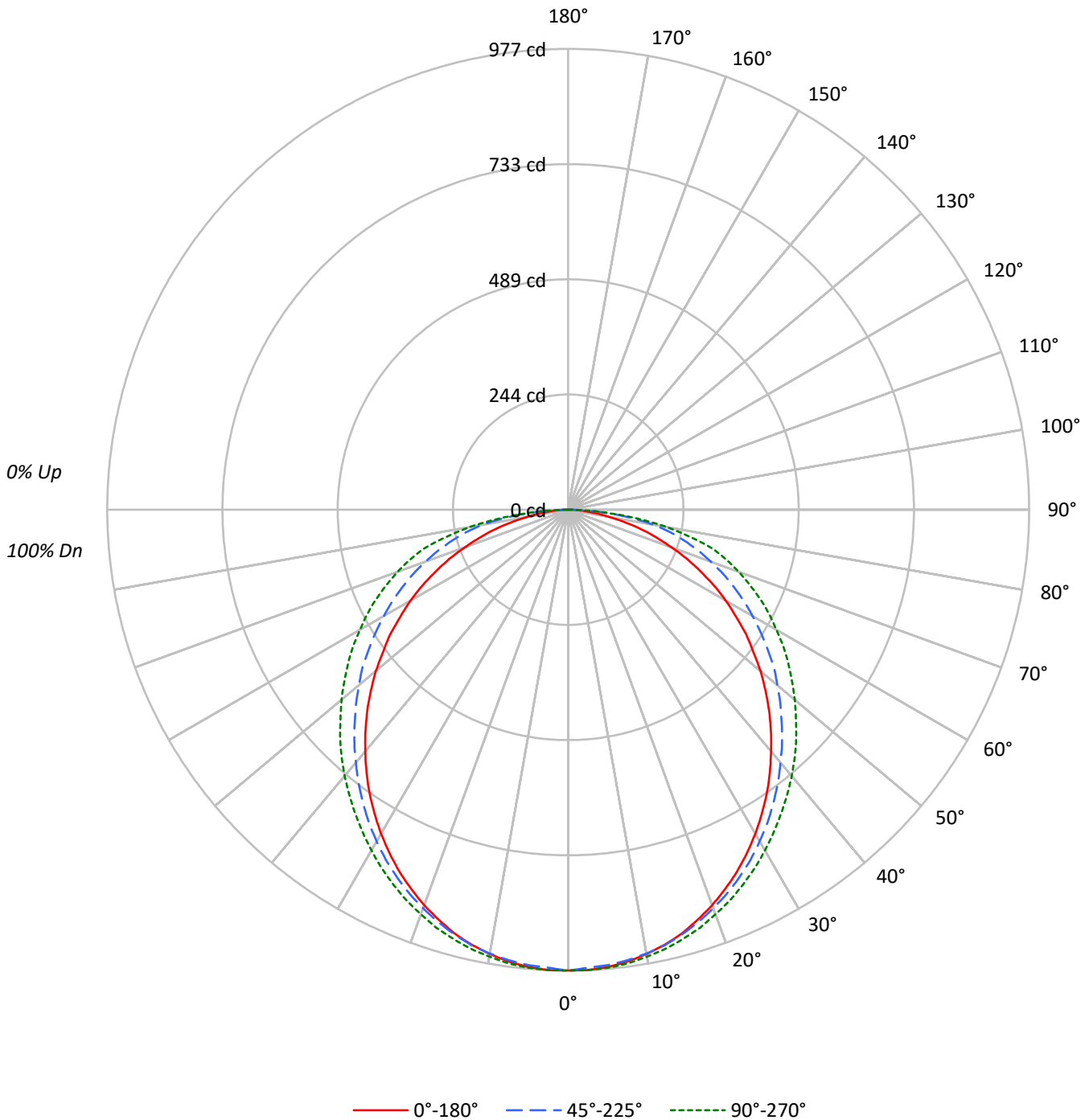
Lumens per Lamp: N/A
Luminaire Lumens: 2909.2 lumens
Efficiency: N/A
Efficacy: 127.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P388775
CATALOG NUMBER: 24CZ2-35VHE-UNV-L930-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388775

CATALOG NUMBER: 24CZ2-35VHE-UNV-L930-CD1-U

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°	1314	1314	1314
5°	1314	1309	1317
10°	1307	1305	1315
15°	1296	1298	1312
20°	1278	1287	1307
25°	1257	1276	1302
30°	1232	1261	1296
35°	1206	1246	1292
40°	1175	1229	1294
45°	1145	1217	1301
50°	1114	1211	1313
55°	1080	1209	1337
60°	1037	1215	1372
65°	983	1233	1431
70°	913	1264	1513
75°	833	1328	1641
80°	685	1430	1640
85°	525	1318	1409



TEST NUMBER: P388775

CATALOG NUMBER: 24CZ2-35VHE-UNV-L930-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.4	3.2
10°-20°	263.7	9.1
20°-30°	396.9	13.6
30°-40°	475.6	16.3
40°-50°	495.6	17.0
50°-60°	461.1	15.9
60°-70°	379.8	13.1
70°-80°	258.7	8.9
80°-90°	85.4	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°	753.0	25.9
0°-40°	1228.6	42.2
0°-60°	2185.3	75.1
0°-90°	2909.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2909.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	977	977	977	977	977	
5°	973	973	969	974	975	92
15°	930	931	932	941	942	262
25°	847	850	859	874	877	390
35°	734	743	758	779	786	459
45°	602	615	640	672	684	464
55°	460	476	516	556	570	410
65°	309	335	387	433	450	306
75°	160	196	255	301	316	169
85°	34	66	85	91	91	42
90°	0	0	0	0	0	



TEST NUMBER: P388775

CATALOG NUMBER: 24CZ2-35VHE-UNV-L930-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	976.8	976.8	976.8	976.8	976.8
2.5°	976.8	976.8	971.9	976.8	976.8
5°	972.9	972.9	969.0	973.8	974.8
7.5°	966.1	967.0	963.2	969.0	970.0
10°	956.4	957.3	955.4	961.2	962.2
12.5°	944.7	945.7	945.7	952.5	953.5
15°	930.1	931.1	932.1	940.8	941.8
17.5°	911.7	914.6	916.6	927.2	929.2
20°	892.3	895.2	899.1	910.7	912.7
22.5°	870.0	873.8	880.6	893.3	896.2
25°	846.6	850.5	859.3	873.8	876.7
27.5°	820.4	826.3	836.9	852.5	856.4
30°	793.2	799.1	811.7	828.2	834.0
32.5°	764.1	771.9	786.5	804.9	810.7
35°	734.0	742.8	758.3	778.7	786.5
37.5°	702.0	711.7	730.1	752.5	762.2
40°	669.0	680.6	700.0	726.3	736.9
42.5°	636.0	646.6	670.9	699.1	710.7
45°	602.0	614.6	639.8	671.9	683.5
47.5°	567.0	579.6	609.7	643.7	654.4
50°	532.1	544.7	578.7	614.6	627.2
52.5°	494.2	510.7	549.5	585.5	598.1
55°	460.2	475.8	515.6	556.3	569.9
57.5°	421.4	439.8	483.5	526.2	540.8
60°	385.5	404.9	451.5	495.2	509.7
62.5°	348.6	369.9	419.4	464.1	480.6
65°	308.8	335.0	387.4	433.0	449.5
67.5°	272.8	300.0	355.4	402.0	416.5
70°	232.1	265.1	321.4	368.0	384.5
72.5°	197.1	230.1	289.3	335.0	351.5
75°	160.2	196.1	255.4	301.0	315.6
77.5°	123.3	163.1	222.3	257.3	262.2
80°	88.4	130.1	184.5	204.9	211.7
82.5°	62.1	100.0	135.9	149.5	153.4
85°	34.0	66.0	85.4	91.3	91.3
87.5°	14.6	28.2	34.0	35.0	35.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)