

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: P388584

Luminaire Tested: **24CZ2-35VHE-SQR-UNV-L930-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: P388584
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: 24CZ2-35VHE-SQR-UNV-L930-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2726.0 lumens
Efficiency: N/A
Efficacy: 119.6 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

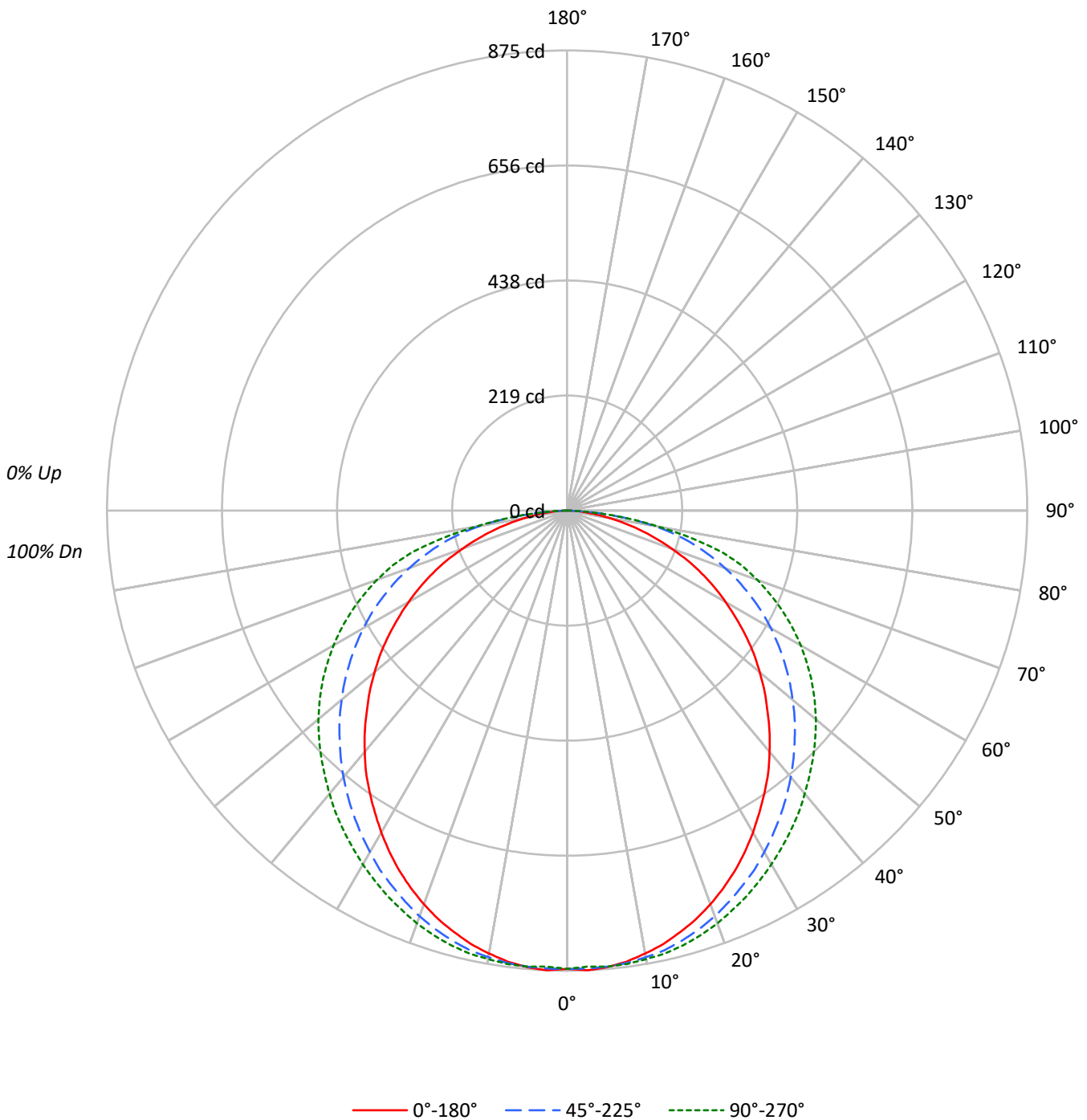
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1172	1172	1172
5°	1177	1176	1176
10°	1168	1178	1183
15°	1156	1179	1191
20°	1141	1176	1196
25°	1121	1169	1200
30°	1098	1165	1207
35°	1075	1162	1218
40°	1051	1162	1235
45°	1024	1165	1259
50°	1001	1172	1293
55°	971	1185	1332
60°	938	1204	1381
65°	897	1227	1439
70°	832	1257	1512
75°	753	1301	1582
80°	635	1304	1360
85°	486	986	986



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.7	3.0
10°-20°	238.0	8.7
20°-30°	361.5	13.3
30°-40°	439.7	16.1
40°-50°	468.1	17.2
50°-60°	445.9	16.4
60°-70°	372.9	13.7
70°-80°	248.6	9.1
80°-90°	68.8	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°	682.1	25.0
0°-40°	1121.8	41.2
0°-60°	2035.8	74.7
0°-90°	2726.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2726.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	871	871	871	871	871	
5°	871	866	870	870	870	83
15°	830	832	846	852	855	234
25°	755	765	788	801	808	348
35°	654	673	708	731	742	410
45°	538	567	612	646	662	416
55°	414	450	505	549	568	370
65°	282	323	385	433	452	278
75°	145	191	250	293	304	154
85°	32	58	64	63	64	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	871.4	871.4	871.4	871.4	871.4
2.5°	875.0	868.7	871.4	871.4	867.8
5°	871.4	866.0	870.5	870.5	870.5
7.5°	865.1	860.6	867.8	869.6	869.6
10°	855.2	853.4	862.4	865.1	866.0
12.5°	844.4	843.5	856.1	859.7	862.4
15°	830.0	831.8	846.2	852.5	855.2
17.5°	814.7	818.3	834.5	843.5	846.2
20°	796.6	802.0	821.0	830.0	835.4
22.5°	776.8	784.9	804.7	815.6	821.9
25°	755.2	765.1	787.6	801.1	808.4
27.5°	731.8	744.4	770.5	785.8	793.0
30°	706.6	721.0	749.8	767.8	776.8
32.5°	680.5	697.6	729.1	748.9	759.7
35°	654.4	673.3	707.5	730.9	741.7
37.5°	628.3	647.2	685.0	710.2	723.7
40°	598.6	621.1	661.6	689.5	703.0
42.5°	569.8	594.1	637.3	667.9	682.3
45°	538.3	567.1	612.1	646.3	661.6
47.5°	509.5	538.3	586.9	622.9	640.0
50°	478.0	508.6	559.9	599.5	617.5
52.5°	447.4	478.9	532.9	575.2	593.2
55°	414.1	450.1	505.0	549.1	568.0
57.5°	380.8	419.5	476.2	522.1	541.0
60°	348.4	388.0	447.4	493.3	513.1
62.5°	316.0	355.6	417.7	464.5	483.4
65°	281.8	323.2	385.3	433.0	451.9
67.5°	247.5	290.8	352.9	400.6	418.6
70°	211.5	257.4	319.6	366.4	384.4
72.5°	178.2	224.1	285.4	331.3	348.4
75°	144.9	190.8	250.2	292.6	304.3
77.5°	112.5	158.4	211.5	239.4	242.1
80°	81.9	125.1	168.3	176.4	175.5
82.5°	54.9	93.6	116.1	117.0	119.7
85°	31.5	58.5	63.9	63.0	63.9
87.5°	12.6	20.7	18.0	13.5	13.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)