

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: P388592

Luminaire Tested: **24CZ2-35VHE-SQR-UNV-L940-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: P388592
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-L940-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2892.7 lumens
Efficiency: N/A
Efficacy: 126.9 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

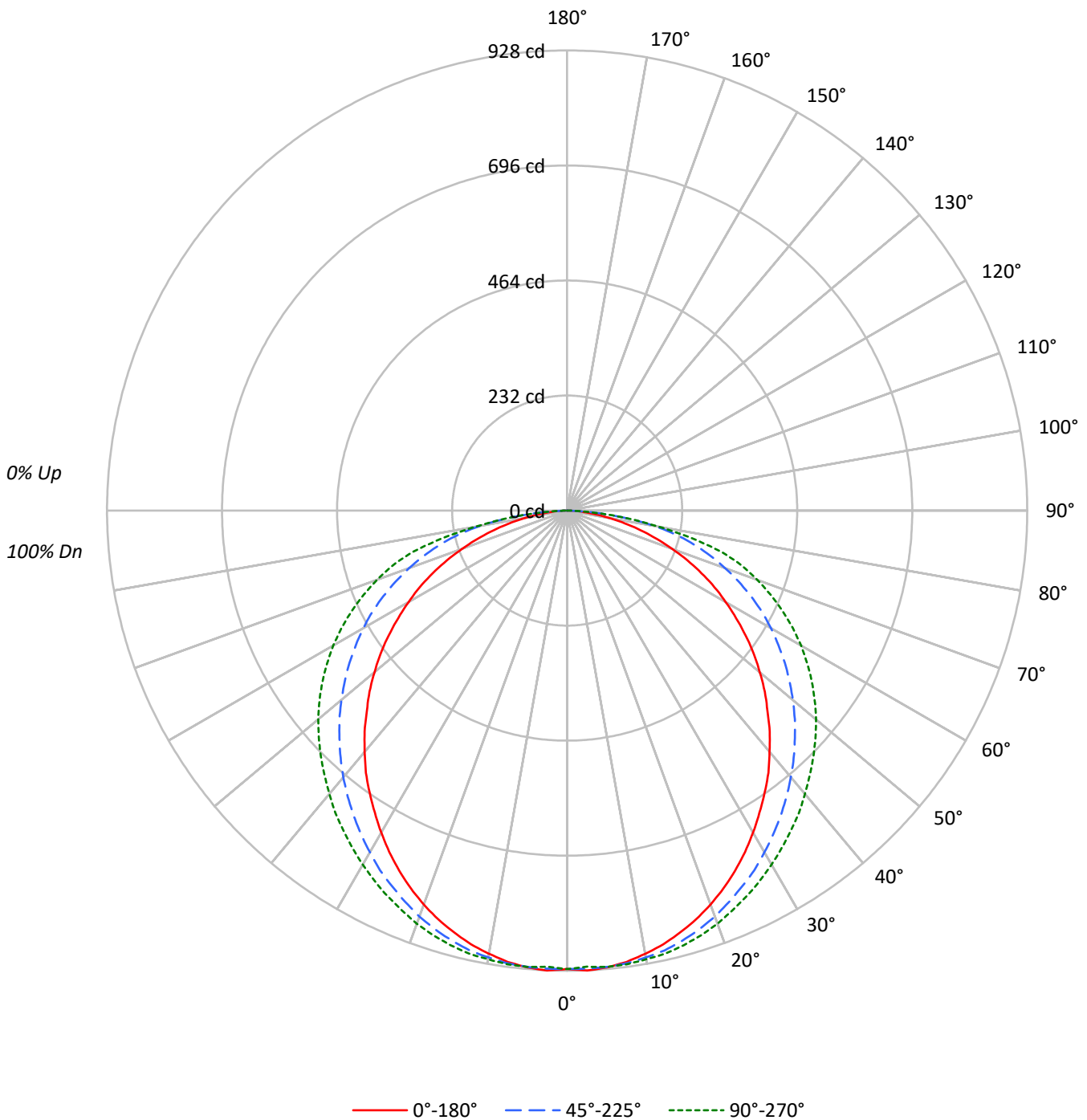
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1244	1244	1244
5°	1249	1248	1248
10°	1240	1250	1255
15°	1227	1251	1264
20°	1210	1247	1269
25°	1190	1241	1273
30°	1165	1236	1281
35°	1141	1233	1293
40°	1116	1233	1310
45°	1087	1236	1336
50°	1062	1244	1372
55°	1031	1257	1414
60°	995	1277	1465
65°	952	1301	1527
70°	883	1334	1605
75°	800	1380	1679
80°	673	1384	1444
85°	516	1047	1047



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.8	3.0
10°-20°	252.5	8.7
20°-30°	383.6	13.3
30°-40°	466.6	16.1
40°-50°	496.7	17.2
50°-60°	473.1	16.4
60°-70°	395.7	13.7
70°-80°	263.8	9.1
80°-90°	73.0	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°	723.9	25.0
0°-40°	1190.4	41.2
0°-60°	2160.3	74.7
0°-90°	2892.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2892.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	925	925	925	925	925	
5°	925	919	924	924	924	88
15°	881	883	898	905	908	248
25°	801	812	836	850	858	369
35°	694	714	751	776	787	435
45°	571	602	650	686	702	442
55°	439	478	536	583	603	393
65°	299	343	409	460	480	295
75°	154	202	266	310	323	163
85°	33	62	68	67	68	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	924.6	924.6	924.6	924.6	924.6
2.5°	928.5	921.8	924.6	924.6	920.8
5°	924.6	918.9	923.7	923.7	923.7
7.5°	918.0	913.2	920.8	922.7	922.7
10°	907.5	905.5	915.1	918.0	918.9
12.5°	896.0	895.0	908.4	912.2	915.1
15°	880.7	882.6	897.9	904.6	907.5
17.5°	864.5	868.3	885.5	895.0	897.9
20°	845.4	851.1	871.2	880.7	886.4
22.5°	824.4	832.9	854.0	865.4	872.1
25°	801.4	811.9	835.8	850.1	857.8
27.5°	776.6	790.0	817.7	833.9	841.5
30°	749.8	765.1	795.7	814.8	824.4
32.5°	722.1	740.3	773.7	794.7	806.2
35°	694.4	714.5	750.8	775.6	787.1
37.5°	666.7	686.8	726.9	753.7	768.0
40°	635.2	659.1	702.1	731.7	746.0
42.5°	604.7	630.4	676.3	708.8	724.1
45°	571.2	601.8	649.5	685.8	702.1
47.5°	540.7	571.2	622.8	661.0	679.2
50°	507.2	539.7	594.1	636.2	655.3
52.5°	474.7	508.2	565.5	610.4	629.5
55°	439.4	477.6	535.9	582.7	602.7
57.5°	404.1	445.1	505.3	554.0	574.1
60°	369.7	411.7	474.7	523.5	544.5
62.5°	335.3	377.3	443.2	492.9	513.0
65°	299.0	342.9	408.8	459.5	479.5
67.5°	262.7	308.5	374.4	425.1	444.2
70°	224.5	273.2	339.1	388.8	407.9
72.5°	189.1	237.8	302.8	351.5	369.7
75°	153.8	202.5	265.5	310.4	322.9
77.5°	119.4	168.1	224.5	254.1	257.0
80°	86.9	132.8	178.6	187.2	186.3
82.5°	58.3	99.3	123.2	124.2	127.0
85°	33.4	62.1	67.8	66.9	67.8
87.5°	13.4	22.0	19.1	14.3	14.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)