

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: P388656

Luminaire Tested: **24CZ2-40VHE-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: P388656
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: 24CZ2-40VHE-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: 3124.9 lumens
Efficiency: N/A
Efficacy: 119.3 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

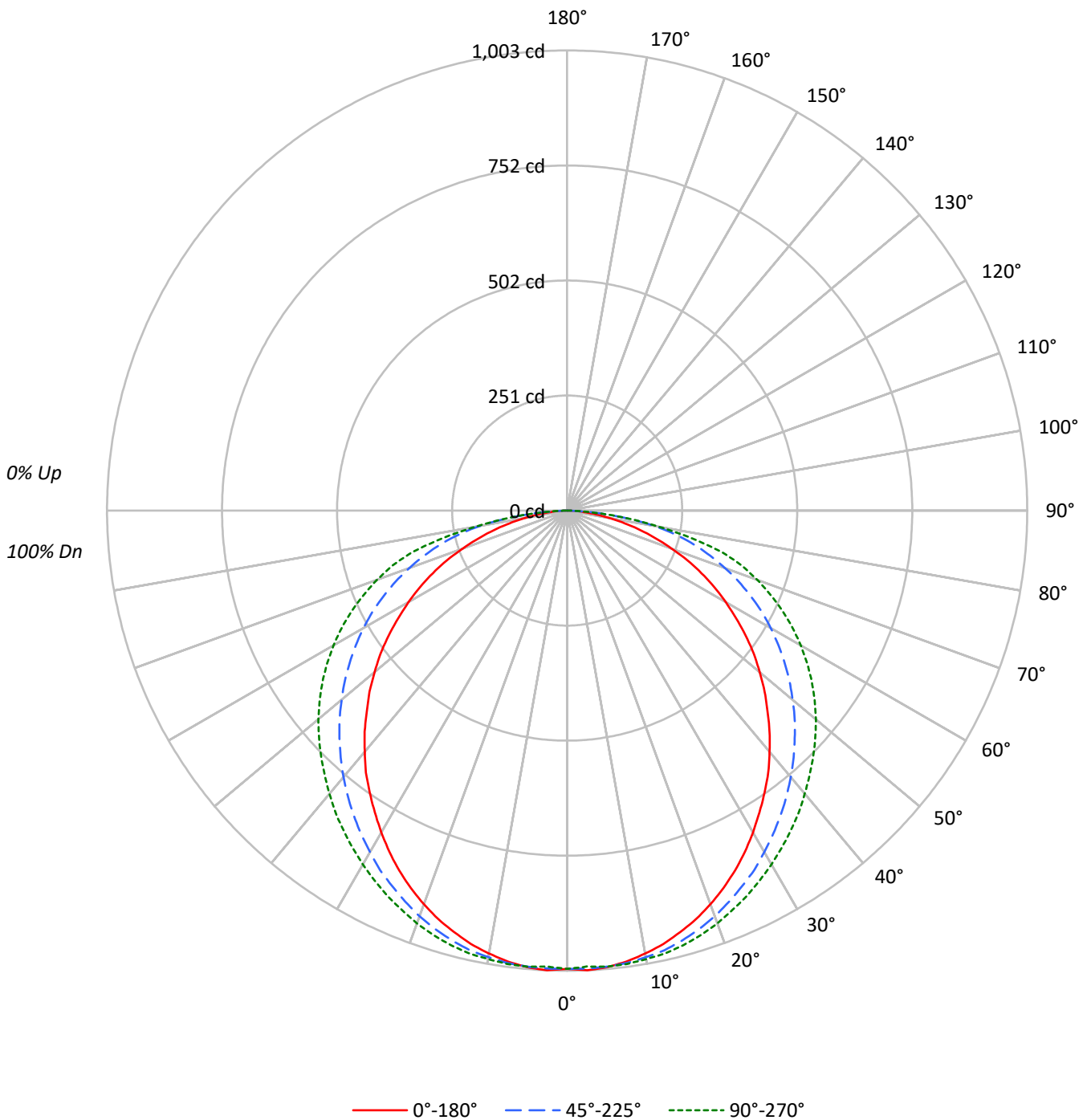
Input Watts (W): 26.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1344	1344	1344
5°	1349	1348	1348
10°	1339	1351	1356
15°	1325	1351	1366
20°	1308	1348	1371
25°	1285	1340	1376
30°	1258	1336	1384
35°	1232	1332	1397
40°	1205	1332	1415
45°	1174	1335	1443
50°	1147	1343	1482
55°	1114	1358	1527
60°	1075	1380	1583
65°	1028	1406	1649
70°	954	1441	1733
75°	863	1491	1813
80°	728	1495	1559
85°	557	1132	1132



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.8	3.0
10°-20°	272.8	8.7
20°-30°	414.4	13.3
30°-40°	504.0	16.1
40°-50°	536.6	17.2
50°-60°	511.1	16.4
60°-70°	427.4	13.7
70°-80°	285.0	9.1
80°-90°	78.8	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°	782.0	25.0
0°-40°	1286.0	41.2
0°-60°	2333.7	74.7
0°-90°	3124.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3124.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	999	999	999	999	999	
5°	999	993	998	998	998	95
15°	951	954	970	977	980	268
25°	866	877	903	918	927	399
35°	750	772	811	838	850	469
45°	617	650	702	741	758	477
55°	475	516	579	630	651	424
65°	323	370	442	496	518	319
75°	166	219	287	335	349	176
85°	36	67	73	72	73	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	998.9	998.9	998.9	998.9	998.9
2.5°	1003.0	995.8	998.9	998.9	994.7
5°	998.9	992.7	997.8	997.8	997.8
7.5°	991.6	986.5	994.7	996.8	996.8
10°	980.3	978.2	988.6	991.6	992.7
12.5°	967.9	966.9	981.3	985.5	988.6
15°	951.4	953.5	970.0	977.2	980.3
17.5°	933.9	938.0	956.6	966.9	970.0
20°	913.2	919.4	941.1	951.4	957.6
22.5°	890.5	899.8	922.5	934.9	942.1
25°	865.8	877.1	902.9	918.4	926.6
27.5°	838.9	853.4	883.3	900.8	909.1
30°	810.0	826.5	859.6	880.2	890.5
32.5°	780.1	799.7	835.8	858.5	870.9
35°	750.2	771.9	811.1	837.9	850.3
37.5°	720.3	741.9	785.3	814.2	829.6
40°	686.2	712.0	758.4	790.4	805.9
42.5°	653.2	681.0	730.6	765.7	782.2
45°	617.1	650.1	701.7	740.9	758.4
47.5°	584.1	617.1	672.8	714.1	733.7
50°	547.9	583.0	641.8	687.2	707.9
52.5°	512.8	549.0	610.9	659.4	680.0
55°	474.7	515.9	578.9	629.5	651.1
57.5°	436.5	480.9	545.9	598.5	620.2
60°	399.3	444.7	512.8	565.5	588.2
62.5°	362.2	407.6	478.8	532.5	554.1
65°	323.0	370.4	441.6	496.3	518.0
67.5°	283.8	333.3	404.5	459.2	479.8
70°	242.5	295.1	366.3	420.0	440.6
72.5°	204.3	256.9	327.1	379.7	399.3
75°	166.1	218.8	286.9	335.4	348.8
77.5°	129.0	181.6	242.5	274.5	277.6
80°	93.9	143.4	193.0	202.3	201.2
82.5°	62.9	107.3	133.1	134.1	137.2
85°	36.1	67.1	73.3	72.2	73.3
87.5°	14.4	23.7	20.6	15.5	15.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)