

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: P388662

Luminaire Tested: **24CZ2-40VHE-SQR-UNV-L940-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: P388662
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-L940-CD1-SDWPD1-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: 3235.4 lumens
Efficiency: N/A
Efficacy: 123.5 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

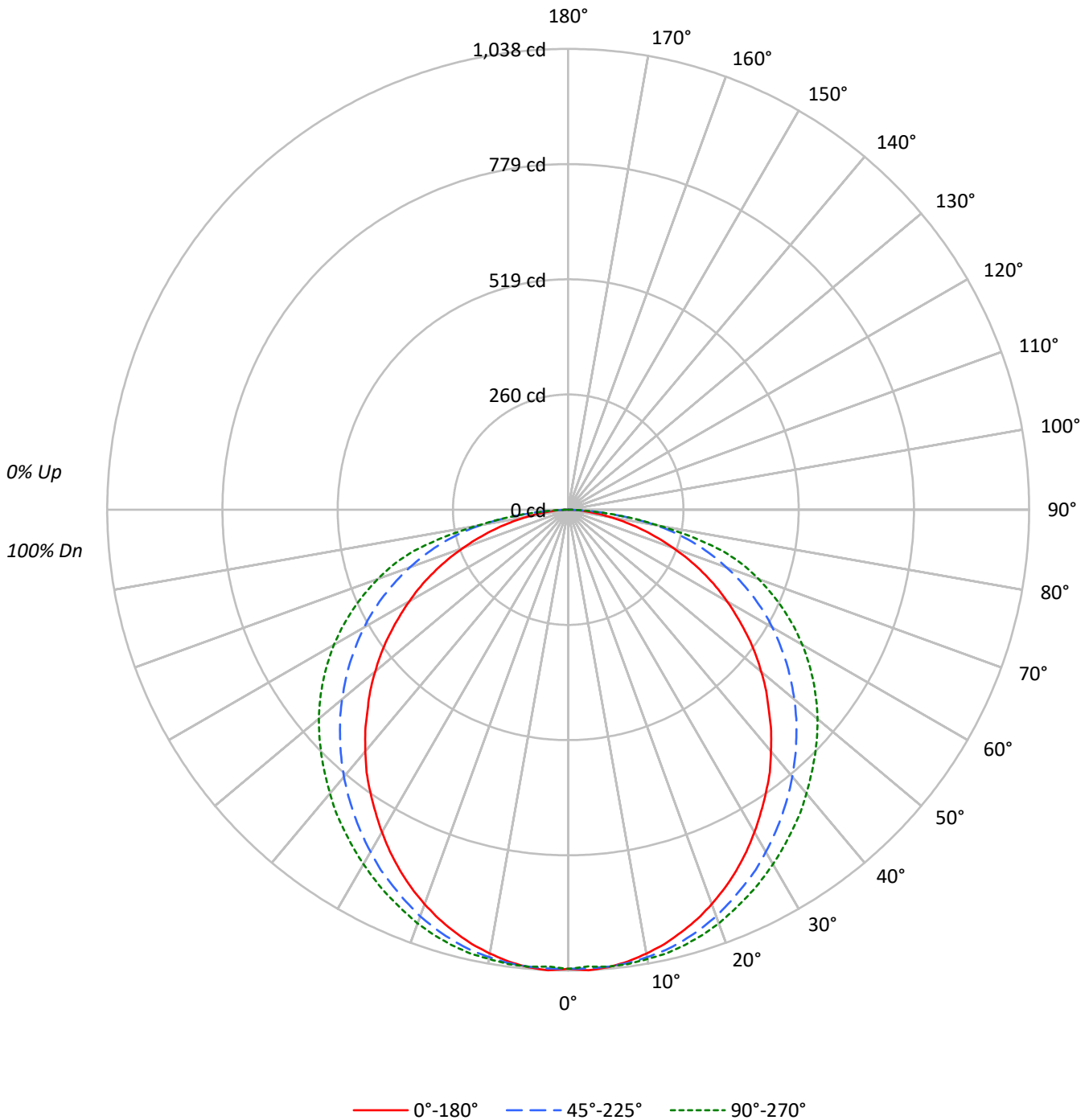
Input Watts (W): 26.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1392	1392	1392
5°	1397	1395	1395
10°	1387	1398	1404
15°	1372	1399	1414
20°	1354	1395	1420
25°	1331	1388	1424
30°	1303	1383	1432
35°	1276	1379	1446
40°	1248	1379	1466
45°	1216	1382	1494
50°	1187	1391	1534
55°	1153	1406	1581
60°	1113	1429	1639
65°	1065	1456	1707
70°	988	1492	1795
75°	894	1544	1877
80°	753	1548	1614
85°	577	1172	1172



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.2	3.0
10°-20°	282.4	8.7
20°-30°	429.0	13.3
30°-40°	521.8	16.1
40°-50°	555.6	17.2
50°-60°	529.2	16.4
60°-70°	442.5	13.7
70°-80°	295.0	9.1
80°-90°	81.6	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°	809.6	25.0
0°-40°	1331.4	41.2
0°-60°	2416.2	74.7
0°-90°	3235.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3235.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1034	1034	1034	1034	1034	
5°	1034	1028	1033	1033	1033	98
15°	985	987	1004	1012	1015	278
25°	896	908	935	951	959	413
35°	777	799	840	868	880	486
45°	639	673	726	767	785	494
55°	492	534	599	652	674	439
65°	334	384	457	514	536	330
75°	172	226	297	347	361	182
85°	37	69	76	75	76	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1034.2	1034.2	1034.2	1034.2	1034.2
2.5°	1038.5	1031.0	1034.2	1034.2	1029.9
5°	1034.2	1027.8	1033.1	1033.1	1033.1
7.5°	1026.7	1021.4	1029.9	1032.1	1032.1
10°	1015.0	1012.8	1023.5	1026.7	1027.8
12.5°	1002.1	1001.1	1016.0	1020.3	1023.5
15°	985.0	987.2	1004.3	1011.8	1015.0
17.5°	966.9	971.2	990.4	1001.1	1004.3
20°	945.5	951.9	974.4	985.0	991.5
22.5°	922.0	931.6	955.1	968.0	975.4
25°	896.4	908.1	934.8	950.9	959.4
27.5°	868.6	883.5	914.5	932.7	941.2
30°	838.7	855.8	890.0	911.3	922.0
32.5°	807.7	828.0	865.4	888.9	901.7
35°	776.7	799.1	839.7	867.5	880.3
37.5°	745.7	768.2	813.0	843.0	859.0
40°	710.5	737.2	785.3	818.4	834.4
42.5°	676.3	705.1	756.4	792.7	809.8
45°	638.9	673.1	726.5	767.1	785.3
47.5°	604.7	638.9	696.6	739.3	759.6
50°	567.3	603.6	664.5	711.5	732.9
52.5°	531.0	568.4	632.5	682.7	704.1
55°	491.5	534.2	599.4	651.7	674.1
57.5°	451.9	497.9	565.2	619.7	642.1
60°	413.5	460.5	531.0	585.5	609.0
62.5°	375.0	422.0	495.7	551.3	573.7
65°	334.4	383.5	457.3	513.9	536.3
67.5°	293.8	345.1	418.8	475.4	496.8
70°	251.1	305.6	379.3	434.8	456.2
72.5°	211.5	266.0	338.7	393.2	413.5
75°	172.0	226.5	297.0	347.2	361.1
77.5°	133.5	188.0	251.1	284.2	287.4
80°	97.2	148.5	199.8	209.4	208.3
82.5°	65.2	111.1	137.8	138.9	142.1
85°	37.4	69.4	75.9	74.8	75.9
87.5°	15.0	24.6	21.4	16.0	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)