

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: P388635

Luminaire Tested: **24CZ2-40HE-SQR-UNV-L935-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: P388635
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: 24CZ2-40HE-SQR-UNV-L935-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3191.9 lumens
Efficiency: N/A
Efficacy: 104.3 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

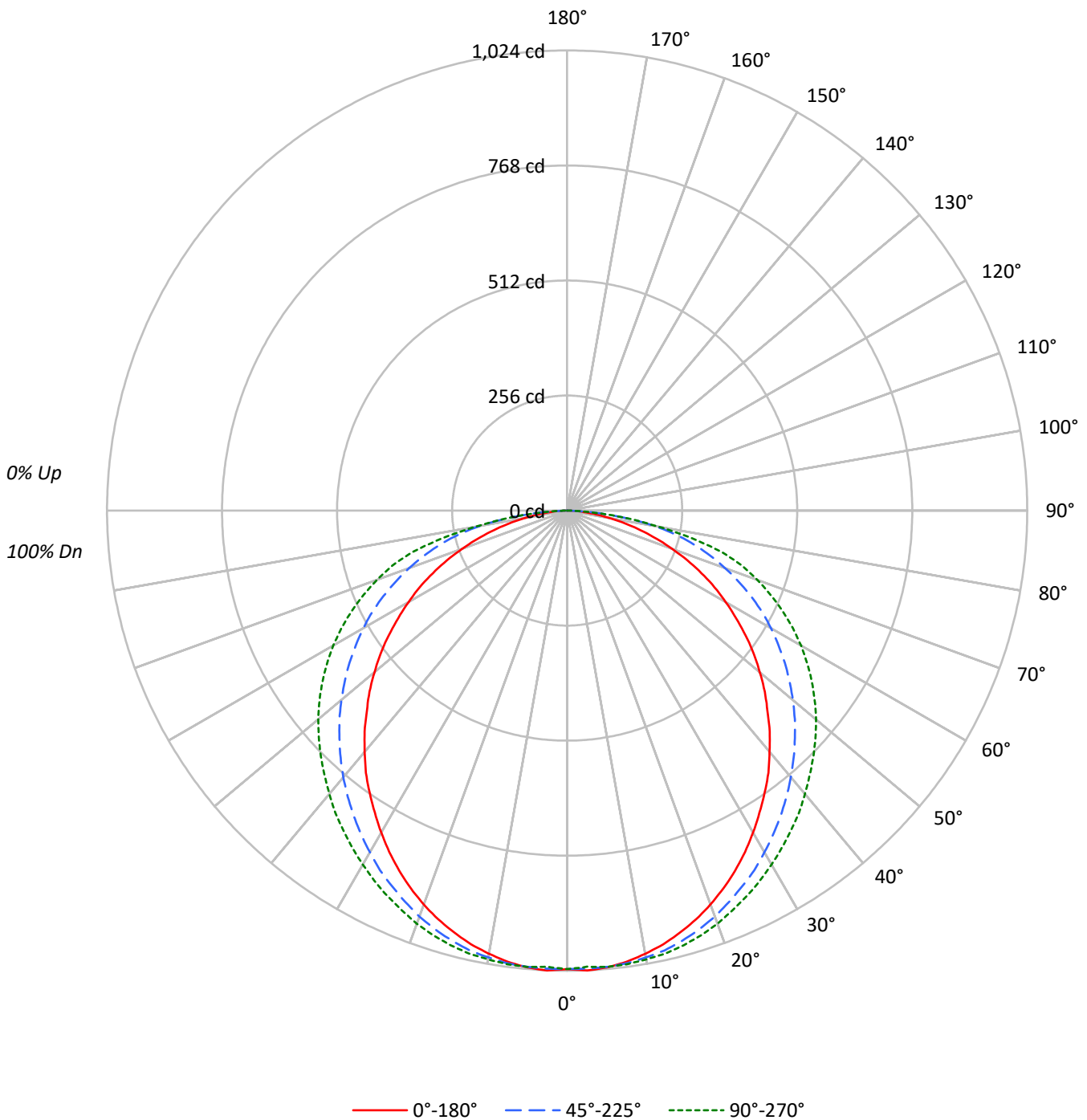
Input Watts (W): 30.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1373	1373	1373
5°	1378	1377	1377
10°	1368	1379	1385
15°	1354	1380	1395
20°	1336	1376	1400
25°	1313	1369	1405
30°	1285	1364	1413
35°	1259	1361	1427
40°	1231	1361	1446
45°	1199	1364	1474
50°	1172	1372	1514
55°	1137	1387	1560
60°	1098	1410	1617
65°	1050	1436	1684
70°	974	1472	1771
75°	882	1523	1852
80°	743	1527	1592
85°	570	1155	1155



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.8	3.0
10°-20°	278.6	8.7
20°-30°	423.2	13.3
30°-40°	514.8	16.1
40°-50°	548.1	17.2
50°-60°	522.0	16.4
60°-70°	436.6	13.7
70°-80°	291.1	9.1
80°-90°	80.5	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°	798.7	25.0
0°-40°	1313.6	41.2
0°-60°	2383.7	74.7
0°-90°	3191.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3191.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1020	1020	1020	1020	1020	
5°	1020	1014	1019	1019	1019	97
15°	972	974	991	998	1001	274
25°	884	896	922	938	946	407
35°	766	788	828	856	868	480
45°	630	664	717	757	775	487
55°	485	527	591	643	665	433
65°	330	378	451	507	529	326
75°	170	224	293	343	356	180
85°	37	68	75	74	75	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1020.3	1020.3	1020.3	1020.3	1020.3
2.5°	1024.5	1017.1	1020.3	1020.3	1016.1
5°	1020.3	1014.0	1019.2	1019.2	1019.2
7.5°	1012.9	1007.6	1016.1	1018.2	1018.2
10°	1001.3	999.2	1009.7	1012.9	1014.0
12.5°	988.7	987.6	1002.4	1006.6	1009.7
15°	971.8	973.9	990.8	998.2	1001.3
17.5°	953.9	958.1	977.1	987.6	990.8
20°	932.8	939.1	961.3	971.8	978.1
22.5°	909.6	919.1	942.3	954.9	962.3
25°	884.3	895.9	922.3	938.1	946.5
27.5°	856.9	871.7	902.2	920.2	928.6
30°	827.4	844.3	878.0	899.1	909.6
32.5°	796.8	816.9	853.8	876.9	889.6
35°	766.3	788.4	828.5	855.9	868.5
37.5°	735.7	757.8	802.1	831.6	847.4
40°	700.9	727.3	774.7	807.4	823.2
42.5°	667.2	695.6	746.2	782.1	798.9
45°	630.3	664.0	716.7	756.8	774.7
47.5°	596.6	630.3	687.2	729.4	749.4
50°	559.7	595.5	655.6	702.0	723.1
52.5°	523.8	560.7	624.0	673.5	694.6
55°	484.8	527.0	591.3	642.9	665.1
57.5°	445.8	491.2	557.6	611.3	633.5
60°	407.9	454.3	523.8	577.6	600.8
62.5°	370.0	416.3	489.1	543.9	566.0
65°	329.9	378.4	451.1	507.0	529.1
67.5°	289.9	340.4	413.2	469.0	490.1
70°	247.7	301.4	374.2	429.0	450.1
72.5°	208.7	262.4	334.1	387.9	407.9
75°	169.7	223.5	293.0	342.6	356.3
77.5°	131.8	185.5	247.7	280.4	283.5
80°	95.9	146.5	197.1	206.6	205.5
82.5°	64.3	109.6	136.0	137.0	140.2
85°	36.9	68.5	74.8	73.8	74.8
87.5°	14.8	24.2	21.1	15.8	15.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)