

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: STREETWORKS

Report Number: P226214

Luminaire Tested: **MLN-B1-D-U-T3-8030-XX**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226214
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29662)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: MLN-B1-D-U-T3-8030-XX
Description: METROLINE ARCHITECTURAL LED LUMINAIRE
80 CRI, 3000K LEDS AND TYPE III DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4561 lumens
Efficiency: N/A
Efficacy: 108.3 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 3.75' x H: 0.17')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U1 - G1

Input Watts (W): 42.1
Input Voltage (V): NR
Input Current (A_{in}): 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: 28.75 FT

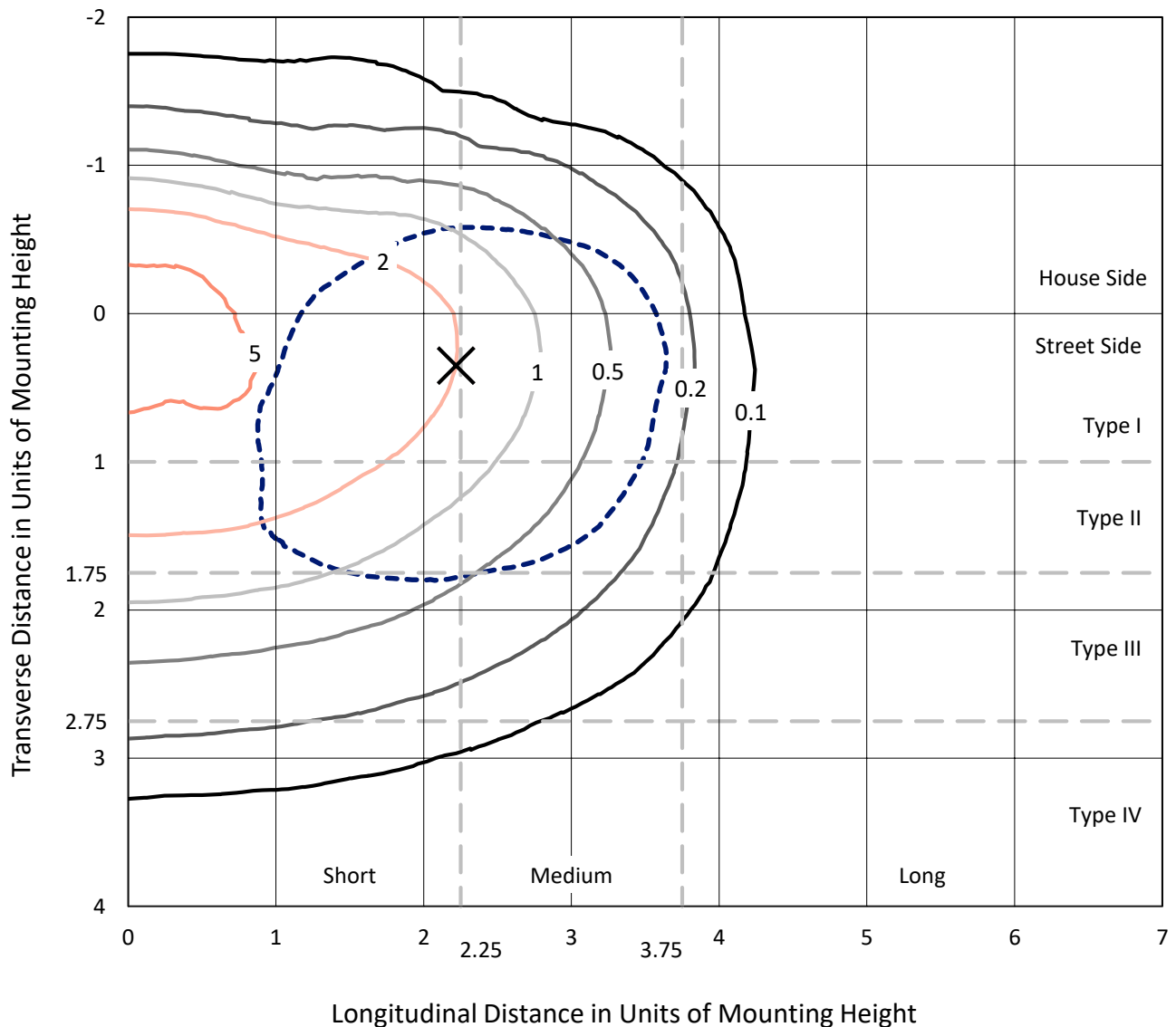


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

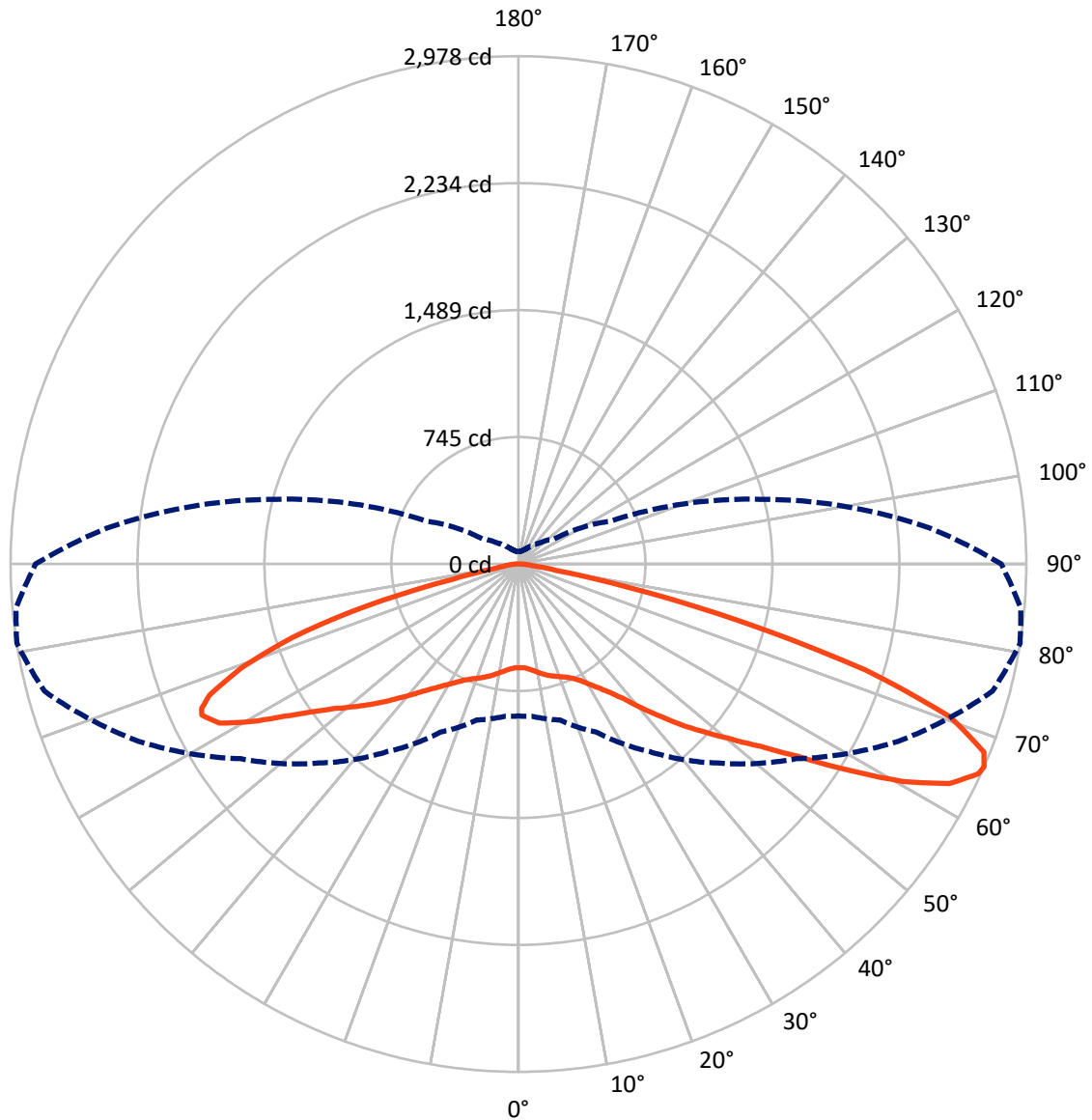


Based on 10 foot mounting height. Maximum calculated value = 6.4 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 81-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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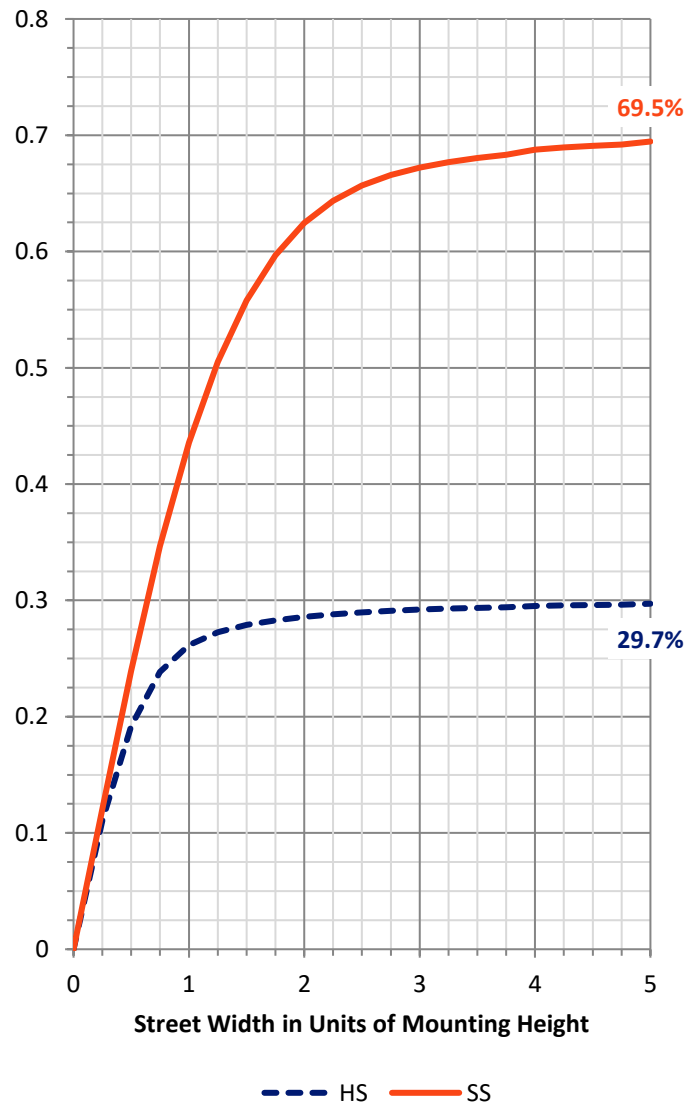
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1371.7	1.6	1373.3
	% Fixture	30.1	0.0	30.1
Street Side	Lumens	3185.2	2.4	3187.7
	% Fixture	69.8	0.1	69.9
Total	Lumens	4556.9	4.1	4561.0
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.8	1.3
10°-20°	189.6	4.2
20°-30°	323.7	7.1
30°-40°	484.0	10.6
40°-50°	693.4	15.2
50°-60°	950.5	20.8
60°-70°	1164.1	25.5
70°-80°	590.7	13.0
80°-90°	101.1	2.2
90°-100°	4.0	0.1
100°-110°	0.1	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°-90°	4556.9	99.9
0°-180°	4561.0	100.0



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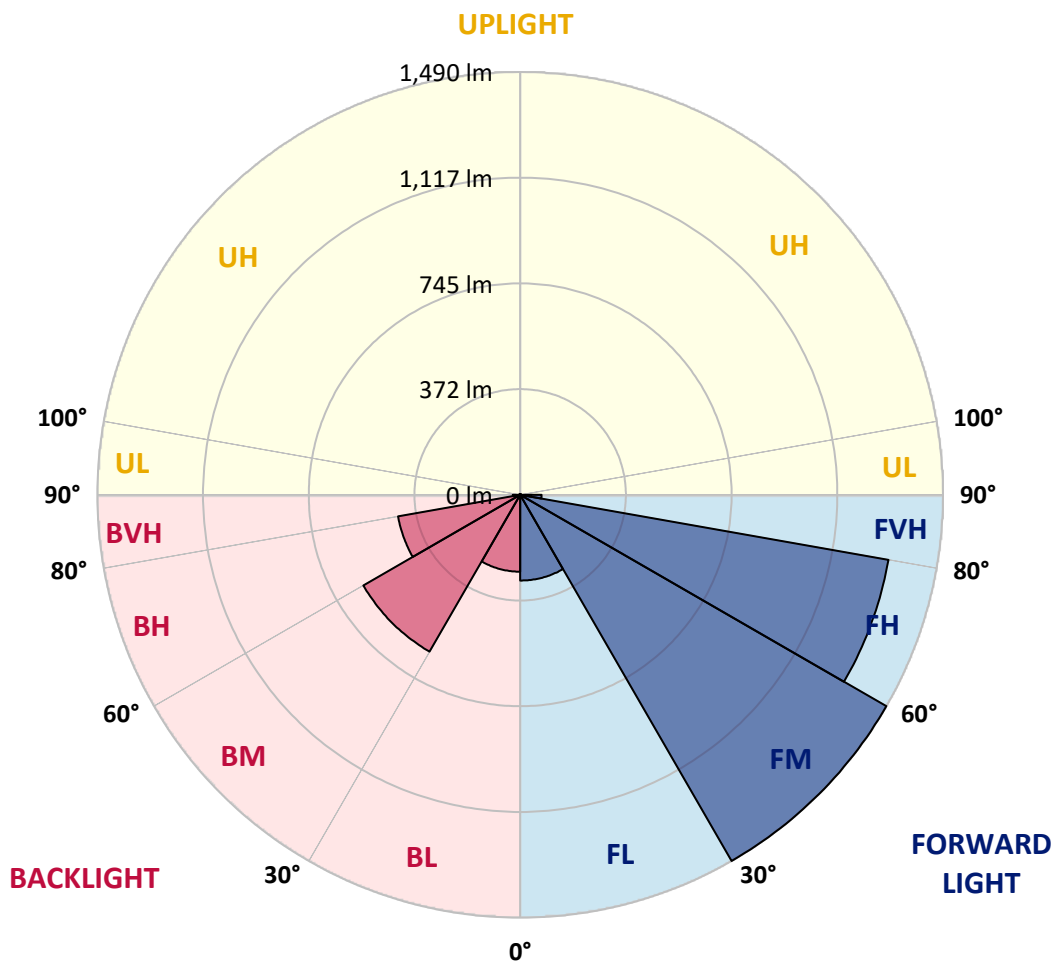
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	302.1	6.6			
FM	(30°-60°)	1489.9	32.7			
FH	(60°-80°)	1317.8	28.9			G1/1800
FVH	(80°-90°)	75.4	1.7			G1/100
BL	(0°-30°)	271.0	5.9	B1/500		
BM	(30°-60°)	638.0	14.0	B1/1000		
BH	(60°-80°)	437.0	9.6	B1/500		G1/500
BVH	(80°-90°)	25.8	0.6			G1/100
UL	(90°-100°)	4.0	0.1		U1/10	
UH	(100°-180°)	1.6	0.0		U1/10	

BUG Rating: B1-U1-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	81°	85°
0°	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1
2.5°	619.3	617.4	611.7	610.6	608.3	612.9	613.3	613.3	609.9	608.3	607.2
5°	625.3	623.4	617.8	617.4	614.4	619.7	620.0	619.3	617.8	617.8	617.8
7.5°	642.3	640.0	634.0	630.6	626.1	629.9	630.2	630.2	629.9	630.6	631.0
10°	668.4	663.4	656.7	650.6	642.7	644.6	643.8	645.3	645.0	647.2	646.5
12.5°	691.4	688.0	679.7	672.9	662.7	662.3	658.9	658.9	660.8	663.8	663.8
15°	711.4	709.1	700.8	694.8	684.6	680.1	673.6	673.6	676.3	678.9	678.5
17.5°	728.4	728.0	718.5	714.4	703.8	698.9	688.0	686.8	689.9	691.4	691.4
20°	744.6	743.5	734.8	729.9	721.6	719.3	701.2	698.2	702.7	705.3	705.0
22.5°	755.5	753.3	745.3	741.2	737.0	737.8	717.4	710.6	717.4	721.2	720.4
25°	764.2	762.7	752.5	751.0	751.4	758.5	737.8	732.1	739.7	742.7	741.9
27.5°	774.8	772.9	763.5	760.4	768.7	783.8	769.5	761.6	769.9	774.0	774.4
30°	797.8	796.3	783.8	779.3	794.0	822.3	812.1	804.2	805.3	817.0	818.6
32.5°	851.0	848.7	835.5	827.2	843.5	879.7	874.0	863.5	855.2	866.5	869.5
35°	906.1	903.8	895.9	891.8	916.7	963.1	957.8	943.5	917.4	925.4	927.2
37.5°	938.9	941.6	943.8	955.9	997.4	1058.9	1061.2	1042.3	1000.5	1002.3	999.7
40°	967.6	970.6	982.0	1014.8	1079.7	1151.8	1182.0	1155.6	1111.8	1107.6	1097.1
42.5°	991.0	997.4	1017.8	1070.6	1154.8	1239.7	1292.2	1268.0	1234.8	1220.8	1206.9
45°	1018.9	1023.5	1052.5	1123.9	1220.8	1322.4	1390.3	1377.8	1358.6	1348.0	1316.0
47.5°	1040.8	1048.8	1080.1	1165.4	1279.3	1397.8	1483.9	1492.9	1493.7	1471.8	1436.0
50°	1069.9	1079.7	1107.3	1201.6	1319.0	1457.5	1571.4	1608.8	1634.1	1612.2	1558.2
52.5°	1101.6	1114.0	1143.1	1249.5	1357.8	1503.5	1649.9	1727.3	1788.4	1775.2	1717.5
55°	1143.1	1154.1	1186.9	1307.3	1412.6	1557.9	1736.0	1871.8	1998.6	1993.0	1936.4
57.5°	1186.9	1192.9	1229.9	1360.9	1488.0	1649.2	1839.8	2070.0	2273.0	2279.0	2218.3
60°	1154.1	1159.3	1202.7	1357.1	1527.3	1737.1	1950.0	2297.5	2573.4	2588.1	2536.4
62.5°	1061.6	1066.5	1117.1	1285.4	1495.2	1754.1	2023.9	2450.8	2794.2	2835.3	2772.7
65°	943.8	949.1	1001.2	1149.5	1401.6	1695.6	2020.9	2487.0	2882.9	2965.1	2931.2
66°	891.0	895.9	946.9	1088.0	1342.7	1650.3	1989.6	2458.3	2878.3	2978.0	2956.8
67.5°	809.9	797.4	843.1	992.2	1239.3	1558.6	1903.5	2390.4	2821.7	2943.6	2936.1
70°	619.7	609.1	657.8	788.7	1020.1	1341.6	1691.8	2160.2	2578.3	2685.1	2700.2
72.5°	426.4	418.9	463.8	575.5	764.6	1048.0	1372.9	1779.0	2085.4	2130.7	2188.1
75°	300.8	296.2	323.0	383.8	512.9	721.9	1012.2	1265.8	1365.0	1346.9	1403.9
77.5°	175.9	180.0	216.2	265.7	355.5	454.8	688.7	778.9	725.3	646.1	610.2
80°	87.2	87.9	120.0	158.9	253.2	343.4	448.0	504.9	457.0	223.8	165.3
82.5°	40.4	44.2	59.2	73.2	112.8	248.3	378.9	482.7	410.2	91.7	73.2
85°	17.4	23.0	38.1	45.3	47.6	99.3	309.5	435.1	261.2	55.5	44.5
87.5°	5.3	12.5	26.0	31.7	28.7	36.2	115.9	198.5	94.7	27.5	24.9
90°	0.0	7.5	16.2	18.1	15.9	14.7	33.6	61.1	24.5	9.8	9.1
92.5°	0.0	3.4	9.1	8.7	6.4	4.2	4.9	4.9	1.5	1.1	1.1
95°	0.0	0.8	3.4	2.3	1.5	0.8	0.4	0.4	0.4	0.4	0.4
97.5°	0.0	0.0	0.4	0.8	0.8	0.4	0.4	0.4	0.4	0.4	0.4
100°	0.0	0.0	0.4	0.8	0.8	0.4	0.4	0.4	0.4	0.4	0.4
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	81°	85°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1
2.5°	609.1	608.3	609.9	611.7	612.5	613.3	607.2	607.2	609.1	616.3	616.7
5°	619.3	617.8	617.0	617.8	618.9	620.0	613.6	613.3	615.1	621.9	623.1
7.5°	631.7	630.6	629.5	628.4	628.4	629.1	621.6	620.4	622.7	629.5	630.2
10°	647.6	646.1	643.8	642.3	641.6	640.4	628.7	624.6	625.0	631.4	632.5
12.5°	662.7	662.3	660.8	661.2	658.9	653.3	634.0	623.8	620.0	624.6	626.1
15°	677.4	677.4	680.1	682.7	677.0	663.4	637.0	618.9	609.1	612.5	613.3
17.5°	690.6	692.1	697.8	701.2	691.8	672.9	636.7	609.5	593.3	593.6	593.6
20°	705.7	707.2	714.8	715.9	702.7	678.2	631.4	593.6	572.9	570.6	568.7
22.5°	720.4	723.1	730.2	728.4	709.5	677.8	620.4	575.9	550.6	546.5	544.6
25°	740.1	744.6	749.1	740.4	713.6	671.0	603.8	555.9	524.6	517.0	514.8
27.5°	769.9	774.4	772.1	752.5	714.4	656.7	586.8	531.4	491.7	480.4	479.3
30°	812.1	812.5	797.8	764.2	711.4	642.3	562.3	498.5	453.6	441.2	440.4
32.5°	862.3	854.4	825.3	772.9	703.5	620.0	527.2	458.9	415.5	403.1	400.8
35°	917.1	905.7	855.2	782.3	688.7	585.3	484.9	418.5	378.5	366.8	364.9
37.5°	983.1	965.4	888.7	788.7	664.2	540.8	440.8	378.5	339.3	327.6	324.9
40°	1068.0	1040.8	927.2	789.1	626.8	488.0	395.9	335.9	298.1	286.1	284.9
42.5°	1169.9	1123.1	966.1	782.3	583.4	443.1	351.7	290.6	254.7	241.2	241.5
45°	1277.8	1219.0	1008.0	769.1	542.7	392.1	299.6	244.5	212.5	202.3	201.9
47.5°	1388.4	1316.7	1052.5	754.4	497.4	343.4	253.2	201.5	176.6	171.3	168.3
50°	1503.5	1420.9	1096.7	739.3	446.8	295.5	208.7	166.4	146.0	140.8	138.9
52.5°	1647.7	1534.5	1139.3	726.8	397.8	248.7	172.1	139.3	120.8	115.1	113.6
55°	1854.1	1694.8	1191.0	711.0	355.5	207.6	146.4	117.4	102.6	97.4	95.9
57.5°	2122.8	1893.7	1259.3	689.5	317.4	180.4	127.2	103.4	93.6	88.3	87.2
60°	2423.2	2127.0	1361.2	668.4	286.4	166.1	117.0	98.1	88.7	83.4	82.6
62.5°	2690.0	2327.7	1474.8	649.1	270.2	163.0	116.6	96.2	84.5	78.9	78.1
65°	2824.7	2430.4	1497.5	617.8	262.3	171.0	124.2	95.9	81.1	74.7	74.0
66°	2831.2	2422.1	1467.7	594.8	256.2	173.6	127.2	95.5	79.6	73.2	72.5
67.5°	2778.3	2354.1	1385.0	537.0	240.8	172.5	130.2	94.7	77.4	70.6	70.2
70°	2515.7	2100.2	1167.3	417.4	203.8	156.6	124.2	91.0	73.2	66.4	65.3
72.5°	2019.0	1720.5	903.5	298.9	167.9	136.2	113.2	85.7	69.4	62.3	61.1
75°	1297.5	1144.6	616.3	214.7	142.3	119.3	99.6	81.5	65.3	57.7	57.0
77.5°	456.3	445.7	323.4	165.7	123.4	103.0	86.0	73.2	59.2	47.2	44.9
80°	118.5	124.5	149.4	142.3	104.2	86.0	71.3	62.3	50.9	37.4	36.6
82.5°	64.2	68.7	92.5	112.8	83.8	68.3	56.6	47.6	40.4	30.2	27.9
85°	40.8	43.0	60.0	68.7	54.7	50.6	41.9	34.3	29.8	19.2	17.4
87.5°	25.7	29.8	38.1	37.0	28.3	21.5	27.9	23.0	20.8	11.7	8.7
90°	7.5	10.2	15.1	15.5	11.7	8.7	13.6	13.6	13.2	6.4	0.0
92.5°	0.8	0.8	1.1	2.6	3.0	3.4	5.7	7.2	7.2	1.5	0.0
95°	0.4	0.4	0.4	0.8	1.1	1.5	1.9	3.0	3.0	0.4	0.0
97.5°	0.4	0.4	0.8	0.8	0.8	0.8	0.4	0.8	0.4	0.0	0.0
100°	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P226214

CATALOG NUMBER: MLN-B1-D-U-T3-8030-XX

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)