

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: P226220

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226220
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-XX
Description: METROLINE ARCHITECTURAL LED LUMINAIRE
70 CRI, 4000K LEDS AND TYPE III DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5590 lumens
Efficiency: N/A
Efficacy: 132.8 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: B2 - U1 - G2

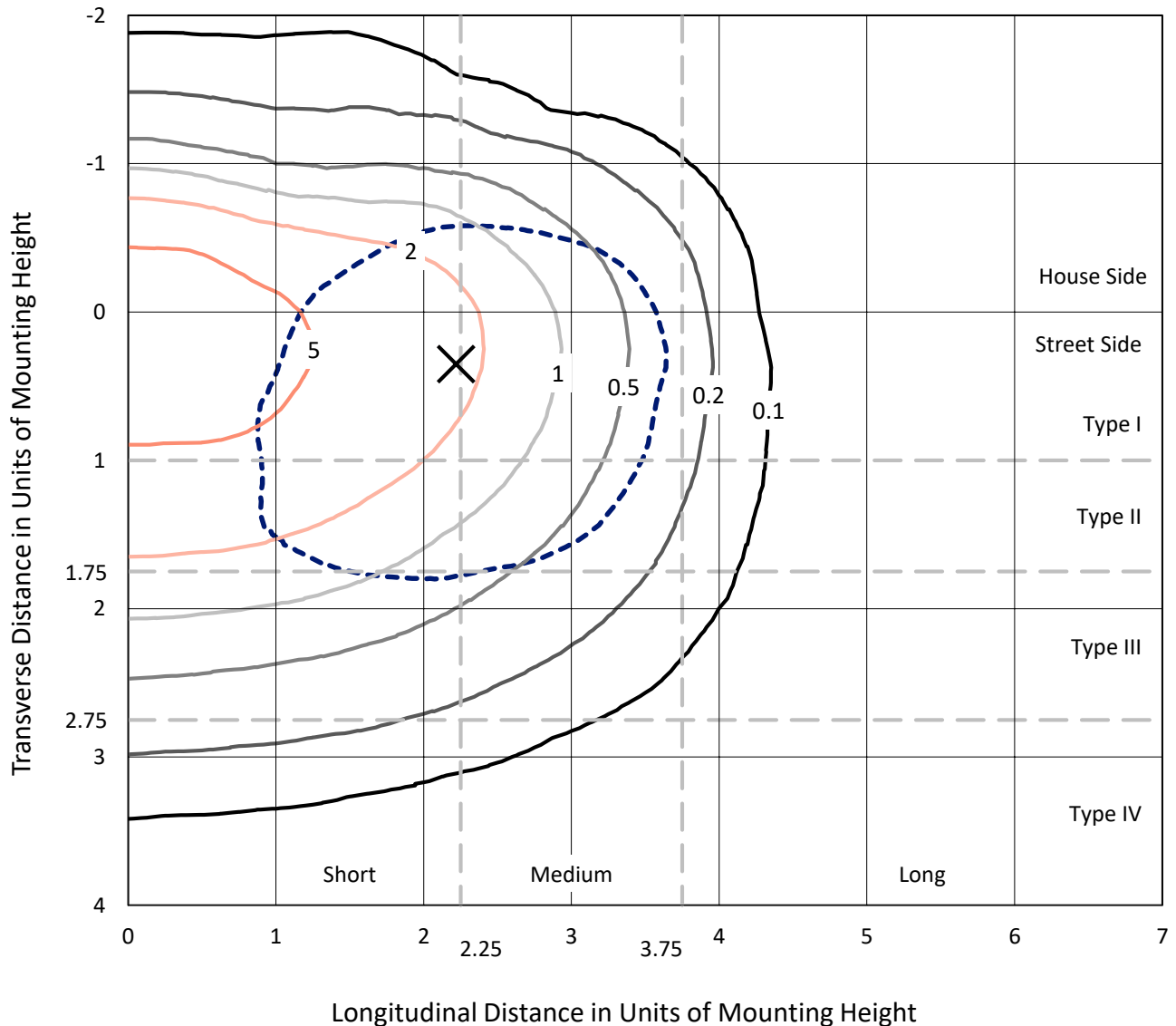
Input Watts (W): 42.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

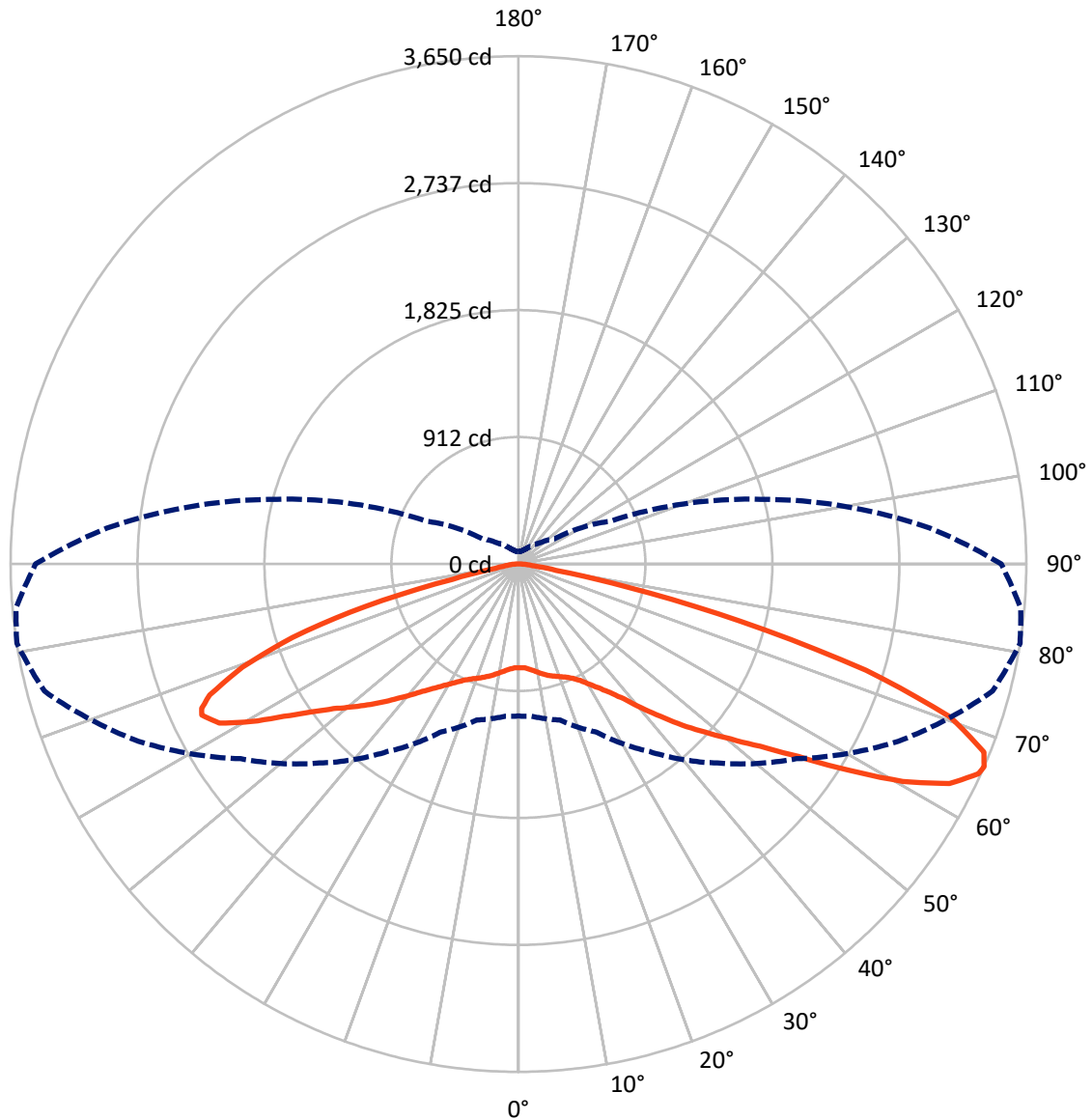
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.9 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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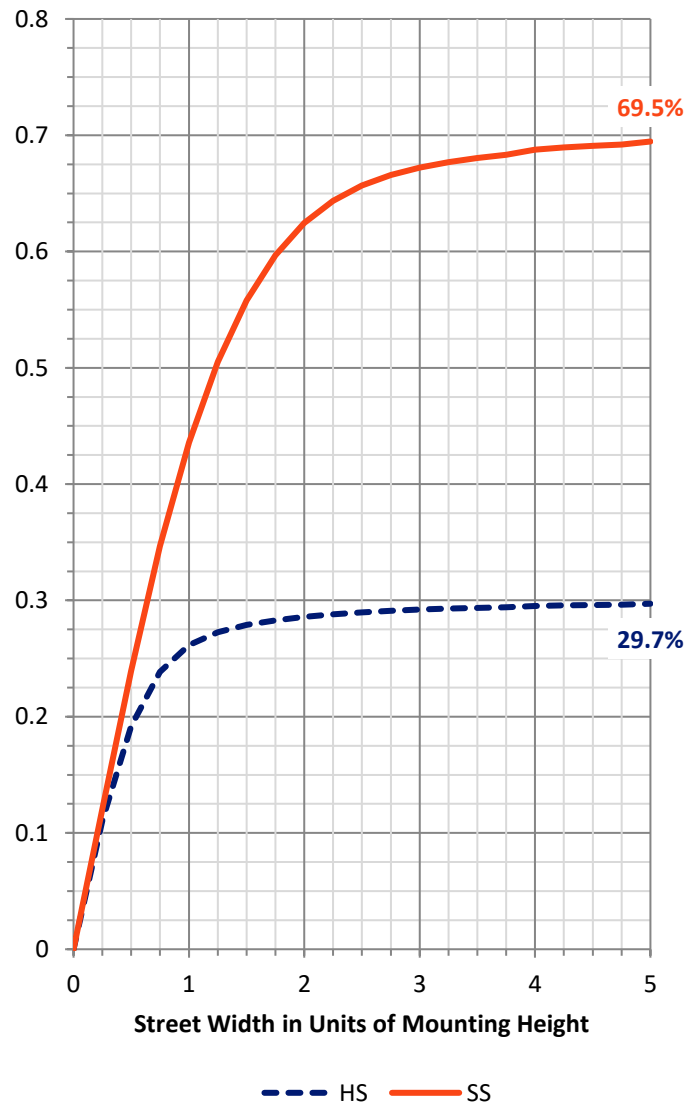
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1681.2	2.0	1683.2
	% Fixture	30.1	0.0	30.1
Street Side	Lumens	3903.9	3.0	3906.8
	% Fixture	69.8	0.1	69.9
Total	Lumens	5585.1	5.0	5590.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.3	1.3
10°-20°	232.4	4.2
20°-30°	396.8	7.1
30°-40°	593.2	10.6
40°-50°	849.8	15.2
50°-60°	1165.0	20.8
60°-70°	1426.7	25.5
70°-80°	724.0	13.0
80°-90°	124.0	2.2
90°-100°	4.9	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°	5585.1	99.9
0°-180°	5590.0	100.0

Coefficient of Utilization



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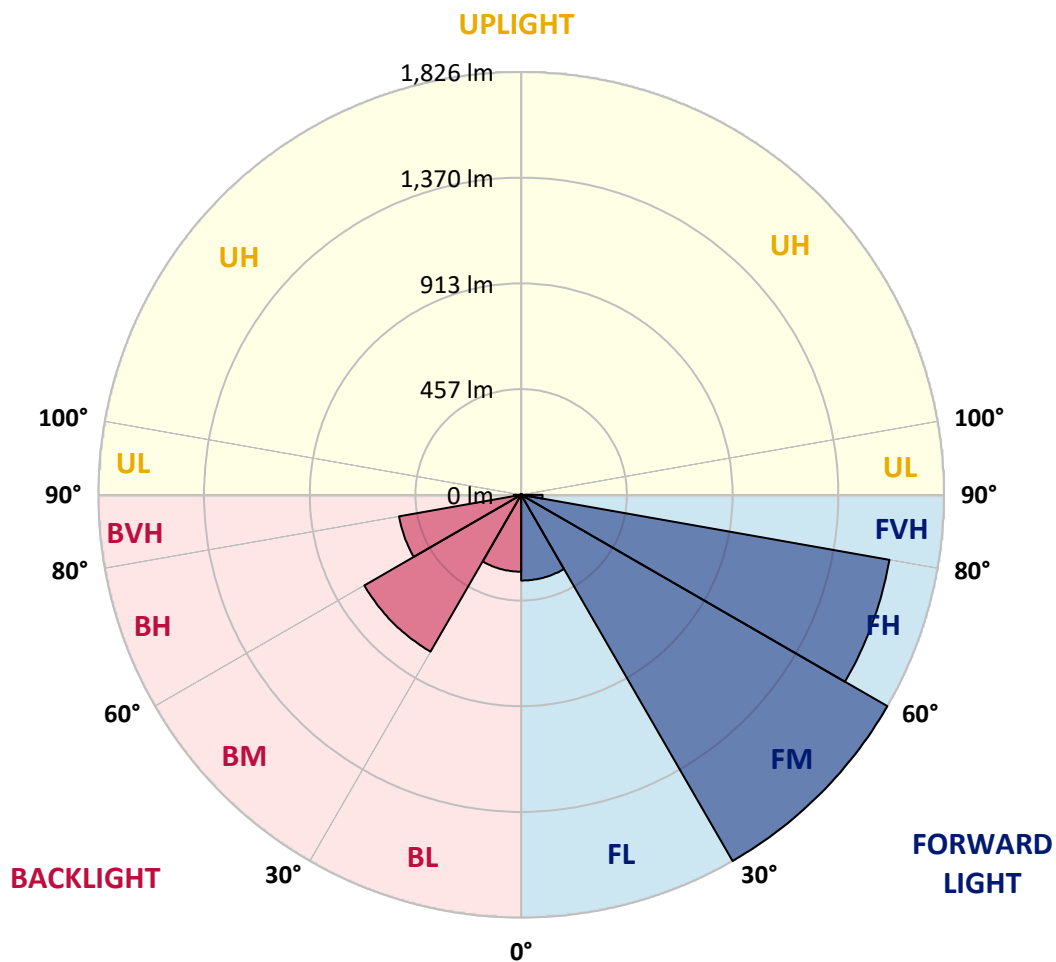
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	370.3	6.6			
FM	(30°-60°)	1826.1	32.7			
FH	(60°-80°)	1615.1	28.9			G1/1800
FVH	(80°-90°)	92.4	1.7			G1/100
BL	(0°-30°)	332.1	5.9	B1/500		
BM	(30°-60°)	781.9	14.0	B1/1000		
BH	(60°-80°)	535.6	9.6	B2/1000		G2/1000
BVH	(80°-90°)	31.6	0.6			G1/100
UL	(90°-100°)	4.9	0.1		U1/10	
UH	(100°-180°)	2.0	0.0		U1/10	

BUG Rating: B2-U1-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	81°	85°
0°	746.5	746.5	746.5	746.5	746.5	746.5	746.5	746.5	746.5	746.5	746.5
2.5°	759.0	756.7	749.8	748.4	745.6	751.1	751.6	751.6	747.4	745.6	744.2
5°	766.4	764.1	757.2	756.7	753.0	759.5	759.9	759.0	757.2	757.2	757.2
7.5°	787.2	784.5	777.0	772.9	767.3	772.0	772.4	772.4	772.0	772.9	773.3
10°	819.1	813.1	804.8	797.4	787.7	790.0	789.1	790.9	790.5	793.2	792.3
12.5°	847.4	843.2	833.0	824.7	812.2	811.7	807.6	807.6	809.9	813.6	813.6
15°	871.9	869.1	858.9	851.5	839.0	833.5	825.6	825.6	828.9	832.1	831.6
17.5°	892.7	892.2	880.7	875.6	862.6	856.6	843.2	841.8	845.5	847.4	847.4
20°	912.6	911.2	900.5	894.5	884.4	881.6	859.4	855.7	861.2	864.5	864.0
22.5°	926.0	923.2	913.5	908.4	903.3	904.2	879.3	870.9	879.3	883.9	883.0
25°	936.6	934.8	922.3	920.4	920.9	929.7	904.2	897.3	906.6	910.3	909.3
27.5°	949.6	947.3	935.7	932.0	942.2	960.7	943.1	933.4	943.6	948.6	949.1
30°	977.8	975.9	960.7	955.1	973.2	1007.9	995.4	985.7	987.0	1001.4	1003.2
32.5°	1043.0	1040.2	1024.0	1013.9	1033.8	1078.2	1071.2	1058.3	1048.1	1062.0	1065.7
35°	1110.5	1107.8	1098.0	1093.0	1123.5	1180.4	1173.9	1156.3	1124.4	1134.1	1136.4
37.5°	1150.8	1154.0	1156.8	1171.6	1222.5	1297.9	1300.6	1277.5	1226.2	1228.5	1225.2
40°	1185.9	1189.6	1203.5	1243.7	1323.3	1411.6	1448.6	1416.3	1362.6	1357.5	1344.6
42.5°	1214.6	1222.5	1247.4	1312.2	1415.3	1519.4	1583.7	1554.1	1513.4	1496.3	1479.2
45°	1248.8	1254.4	1290.0	1377.4	1496.3	1620.7	1704.0	1688.7	1665.1	1652.2	1612.8
47.5°	1275.7	1285.4	1323.8	1428.3	1568.0	1713.2	1818.7	1829.8	1830.7	1803.9	1759.9
50°	1311.3	1323.3	1357.1	1472.7	1616.5	1786.3	1926.0	1971.8	2002.8	1975.9	1909.8
52.5°	1350.1	1365.4	1401.0	1531.4	1664.2	1842.7	2022.2	2117.0	2191.9	2175.7	2105.0
55°	1401.0	1414.4	1454.7	1602.2	1731.2	1909.3	2127.6	2294.1	2449.6	2442.6	2373.2
57.5°	1454.7	1462.1	1507.4	1667.9	1823.8	2021.3	2254.8	2537.0	2785.8	2793.2	2718.7
60°	1414.4	1420.9	1474.1	1663.3	1871.9	2129.0	2389.9	2815.9	3154.0	3172.0	3108.7
62.5°	1301.1	1307.1	1369.1	1575.4	1832.5	2149.8	2480.5	3003.7	3424.6	3475.0	3398.2
65°	1156.8	1163.3	1227.1	1408.9	1717.8	2078.1	2476.8	3048.1	3533.3	3634.1	3592.5
66°	1092.0	1098.0	1160.5	1333.5	1645.7	2022.6	2438.5	3012.9	3527.7	3649.8	3623.9
67.5°	992.6	977.3	1033.3	1216.0	1518.9	1910.2	2333.0	2929.7	3458.3	3607.7	3598.5
70°	759.5	746.5	806.2	966.7	1250.2	1644.3	2073.5	2647.5	3160.0	3290.9	3309.4
72.5°	522.7	513.4	568.4	705.4	937.1	1284.4	1682.7	2180.4	2555.9	2611.4	2681.7
75°	368.6	363.1	395.9	470.4	628.6	884.8	1240.5	1551.3	1673.0	1650.8	1720.6
77.5°	215.5	220.6	265.0	325.6	435.7	557.3	844.1	954.7	889.0	791.9	747.9
80°	106.8	107.8	147.1	194.7	310.4	420.9	549.0	618.9	560.1	274.3	202.6
82.5°	49.5	54.1	72.6	89.7	138.3	304.3	464.4	591.6	502.8	112.4	89.7
85°	21.3	28.2	46.7	55.5	58.3	121.6	379.3	533.3	320.1	68.0	54.6
87.5°	6.5	15.3	31.9	38.9	35.2	44.4	142.0	243.3	116.1	33.8	30.5
90°	0.0	9.3	19.9	22.2	19.4	18.0	41.2	74.9	30.1	12.0	11.1
92.5°	0.0	4.2	11.1	10.6	7.9	5.1	6.0	6.0	1.9	1.4	1.4
95°	0.0	0.9	4.2	2.8	1.9	0.9	0.5	0.5	0.5	0.5	0.5
97.5°	0.0	0.0	0.5	0.9	0.9	0.5	0.5	0.5	0.5	0.5	0.5
100°	0.0	0.0	0.5	0.9	0.9	0.5	0.5	0.5	0.5	0.5	0.5
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°	746.5	746.5	746.5	746.5	746.5	746.5	746.5	746.5	746.5	746.5	746.5
2.5°	746.5	745.6	747.4	749.8	750.7	751.6	744.2	744.2	746.5	755.3	755.8
5°	759.0	757.2	756.2	757.2	758.5	759.9	752.1	751.6	753.9	762.2	763.6
7.5°	774.3	772.9	771.5	770.1	770.1	771.0	761.8	760.4	763.2	771.5	772.4
10°	793.7	791.9	789.1	787.2	786.3	784.9	770.6	765.5	765.9	773.8	775.2
12.5°	812.2	811.7	809.9	810.4	807.6	800.6	777.0	764.6	759.9	765.5	767.3
15°	830.2	830.2	833.5	836.7	829.8	813.1	780.7	758.5	746.5	750.7	751.6
17.5°	846.4	848.3	855.2	859.4	847.8	824.7	780.3	747.0	727.1	727.6	727.6
20°	864.9	866.8	876.0	877.4	861.2	831.2	773.8	727.6	702.1	699.3	697.0
22.5°	883.0	886.2	895.0	892.7	869.6	830.7	760.4	705.8	674.8	669.7	667.4
25°	907.0	912.6	918.1	907.5	874.6	822.4	740.0	681.3	642.9	633.7	630.9
27.5°	943.6	949.1	946.3	922.3	875.6	804.8	719.2	651.2	602.7	588.8	587.4
30°	995.4	995.8	977.8	936.6	871.9	787.2	689.2	611.0	556.0	540.7	539.8
32.5°	1056.9	1047.2	1011.6	947.3	862.2	759.9	646.2	562.4	509.2	494.0	491.2
35°	1123.9	1110.1	1048.1	958.8	844.1	717.4	594.4	512.9	463.9	449.6	447.3
37.5°	1204.9	1183.2	1089.3	966.7	814.1	662.8	540.2	463.9	415.8	401.5	398.2
40°	1309.0	1275.7	1136.4	967.1	768.3	598.1	485.2	411.7	365.4	350.6	349.2
42.5°	1433.8	1376.5	1184.1	958.8	715.1	543.0	431.1	356.1	312.2	295.6	296.0
45°	1566.1	1494.0	1235.4	942.6	665.1	480.6	367.2	299.7	260.4	247.9	247.5
47.5°	1701.6	1613.8	1290.0	924.6	609.6	420.9	310.4	247.0	216.5	210.0	206.3
50°	1842.7	1741.4	1344.1	906.1	547.6	362.2	255.8	204.0	179.0	172.5	170.2
52.5°	2019.4	1880.6	1396.4	890.8	487.5	304.8	210.9	170.7	148.0	141.1	139.2
55°	2272.4	2077.2	1459.7	871.4	435.7	254.4	179.5	143.8	125.8	119.3	117.5
57.5°	2601.7	2321.0	1543.5	845.0	389.0	221.1	155.9	126.7	114.7	108.2	106.8
60°	2969.9	2606.8	1668.3	819.1	351.1	203.5	143.4	120.3	108.7	102.2	101.3
62.5°	3296.9	2852.9	1807.6	795.6	331.2	199.8	142.9	117.9	103.6	96.7	95.7
65°	3462.0	2978.7	1835.3	757.2	321.5	209.5	152.2	117.5	99.4	91.6	90.7
66°	3469.9	2968.5	1798.8	728.9	314.1	212.8	155.9	117.0	97.6	89.7	88.8
67.5°	3405.1	2885.3	1697.5	658.2	295.1	211.4	159.6	116.1	94.8	86.5	86.0
70°	3083.2	2574.0	1430.6	511.6	249.8	191.9	152.2	111.5	89.7	81.4	80.0
72.5°	2474.5	2108.7	1107.3	366.3	205.8	167.0	138.8	105.0	85.1	76.3	74.9
75°	1590.2	1402.9	755.3	263.2	174.4	146.2	122.1	99.9	80.0	70.8	69.8
77.5°	559.2	546.2	396.4	203.1	151.2	126.3	105.5	89.7	72.6	57.8	55.0
80°	145.2	152.6	183.2	174.4	127.7	105.5	87.4	76.3	62.4	45.8	44.9
82.5°	78.6	84.2	113.3	138.3	102.7	83.7	69.4	58.3	49.5	37.0	34.2
85°	50.0	52.7	73.5	84.2	67.1	62.0	51.3	42.1	36.5	23.6	21.3
87.5°	31.5	36.5	46.7	45.3	34.7	26.4	34.2	28.2	25.4	14.3	10.6
90°	9.3	12.5	18.5	19.0	14.3	10.6	16.7	16.7	16.2	7.9	0.0
92.5°	0.9	0.9	1.4	3.2	3.7	4.2	6.9	8.8	8.8	1.9	0.0
95°	0.5	0.5	0.5	0.9	1.4	1.9	2.3	3.7	3.7	0.5	0.0
97.5°	0.5	0.5	0.9	0.9	0.9	0.9	0.5	0.9	0.5	0.0	0.0
100°	0.5	0.9	0.9	0.9	0.9	0.9	0.9	0.5	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: P226220

CATALOG NUMBER: MLN-B1-D-U-T3-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)