

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: P226229

Luminaire Tested: **MLN-B1-D-U-T4-XX**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226229
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29663)
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-T4-XX
Description: METROLINE ARCHITECTURAL LED LUMINAIRE
70 CRI, 4000K LEDS AND TYPE IV DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5568 lumens
Efficiency: N/A
Efficacy: 132.3 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 3.75' x H: 0.17')
IES Classification: Type IV - Short - Cutoff
BUG Rating: B1 - U1 - G1

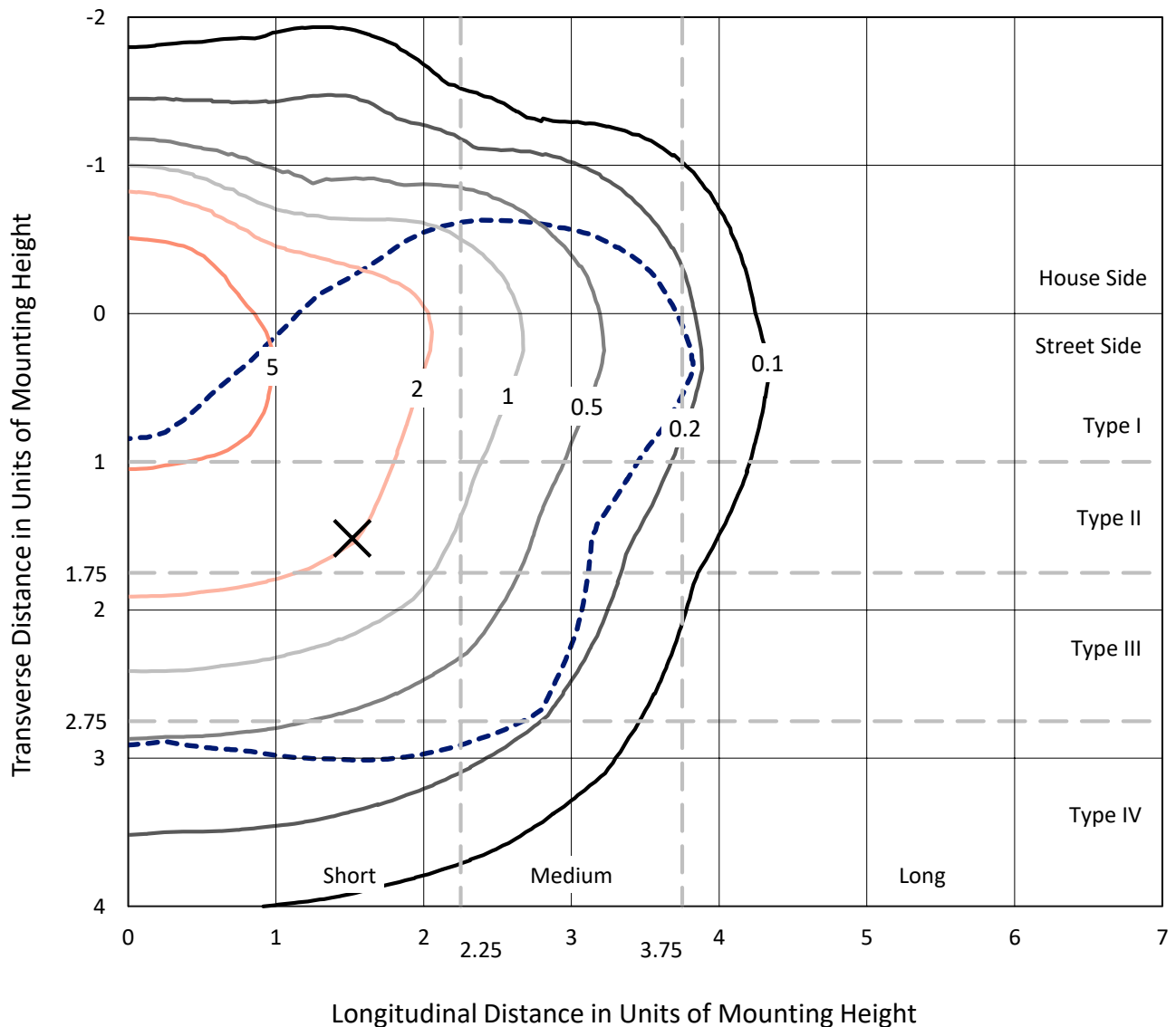
Input Watts (W): 42.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P226229
 CATALOG NUMBER: MLN-B1-D-U-T4-XX

Iso-Footcandle Lines of Horizontal Illumination

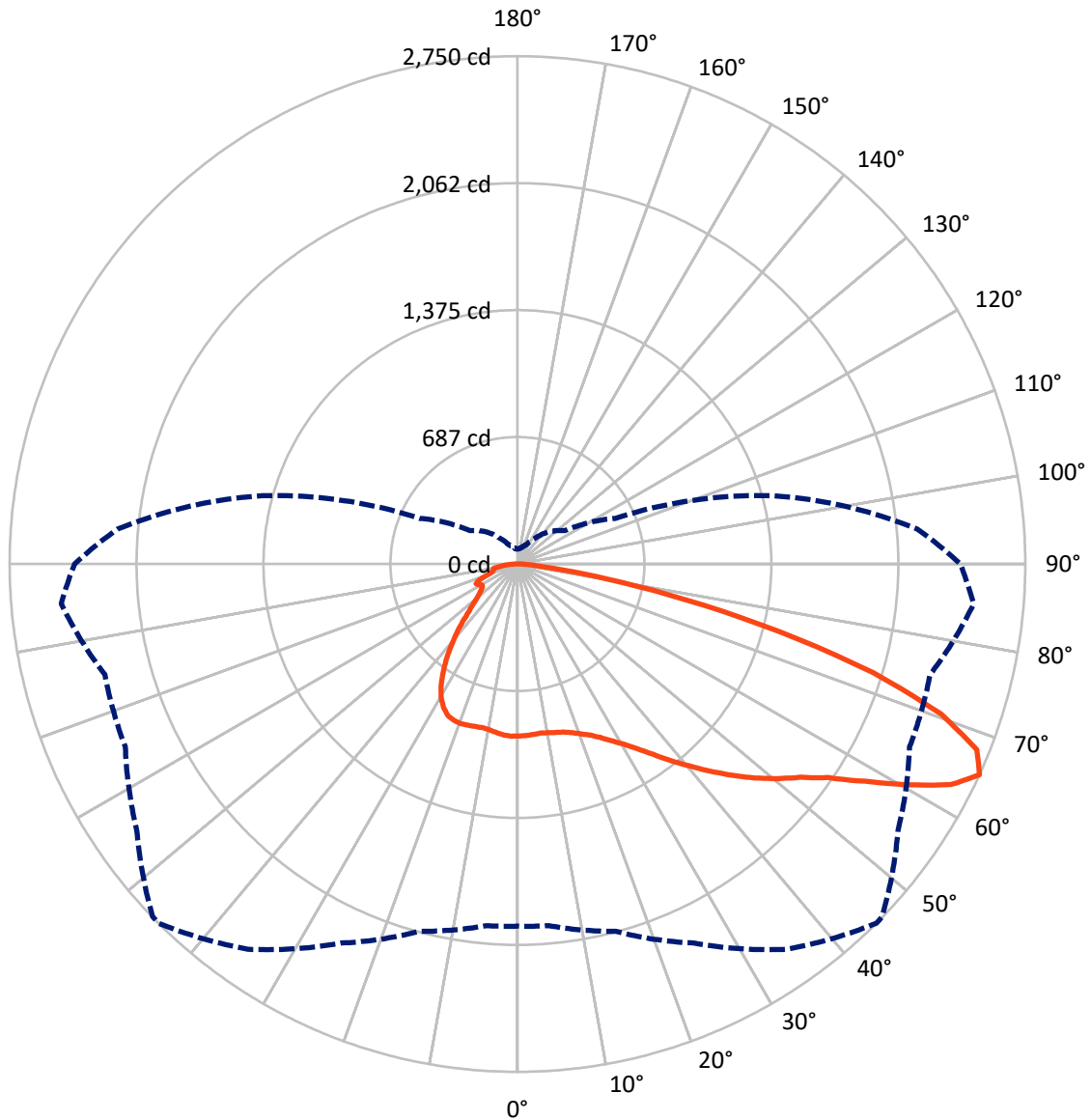
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.3 fc
 Type IV - Short - Cutoff

REPORT NUMBER: P226229
CATALOG NUMBER: MLN-B1-D-U-T4-XX

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical



REPORT NUMBER: P226229

CATALOG NUMBER: MLN-B1-D-U-T4-XX

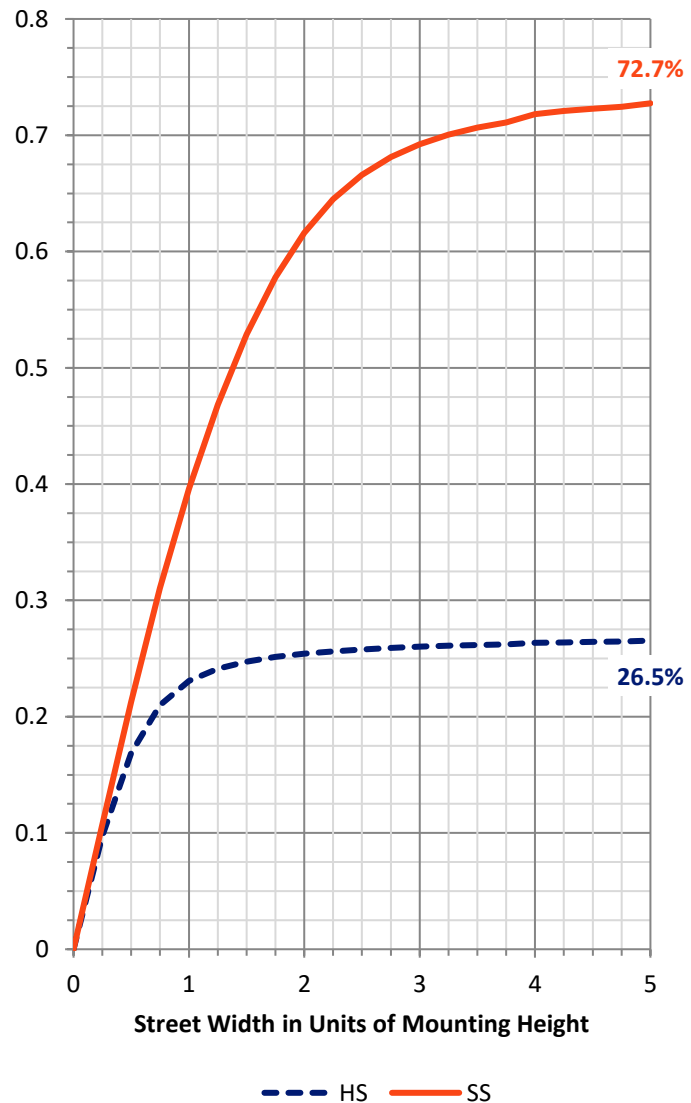
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1498.5	2.3	1500.7
	% Fixture	26.9	0.0	27.0
Street Side	Lumens	4064.6	2.7	4067.2
	% Fixture	73.0	0.0	73.0
Total	Lumens	5563.0	5.0	5568.0
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.2	1.6
10°-20°	260.9	4.7
20°-30°	435.1	7.8
30°-40°	614.7	11.0
40°-50°	799.2	14.4
50°-60°	1074.5	19.3
60°-70°	1396.6	25.1
70°-80°	793.7	14.3
80°-90°	100.2	1.8
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°	5563.0	99.9
0°-180°	5568.0	100.0



REPORT NUMBER: P226229

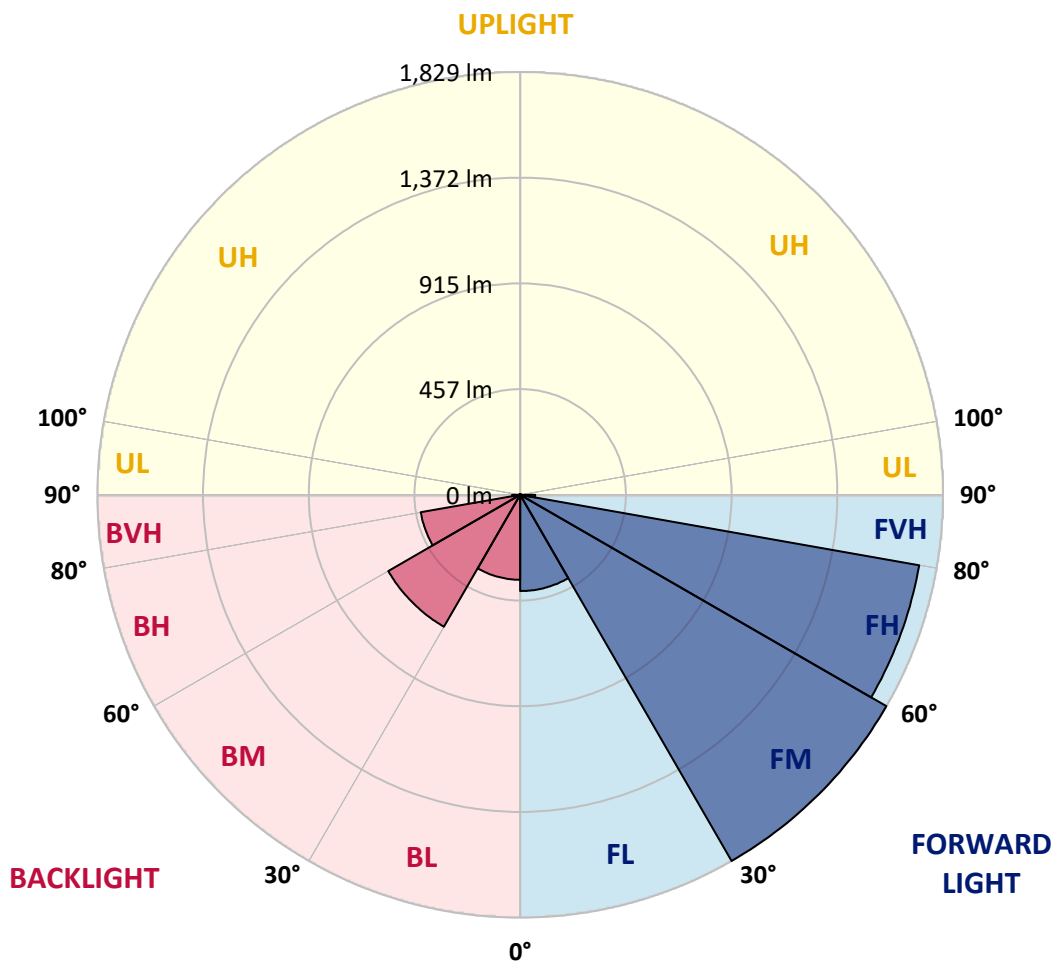
CATALOG NUMBER: MLN-B1-D-U-T4-XX

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	416.4	7.5			
FM	(30°-60°)	1829.5	32.9			
FH	(60°-80°)	1753.3	31.5			G1/1800
FVH	(80°-90°)	65.3	1.2			G1/100
BL	(0°-30°)	367.7	6.6	B1/500		
BM	(30°-60°)	658.9	11.8	B1/1000		
BH	(60°-80°)	436.9	7.8	B1/500		G1/500
BVH	(80°-90°)	34.9	0.6			G1/100
UL	(90°-100°)	4.9	0.1		U1/10	
UH	(100°-180°)	2.3	0.0		U1/10	

BUG Rating: B1-U1-G1

Type IV Short





REPORT NUMBER: P226229

CATALOG NUMBER: MLN-B1-D-U-T4-XX

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	931.0	931.0	931.0	931.0	931.0	931.0	931.0	931.0	931.0	931.0	931.0
2.5°	935.6	933.8	927.3	925.4	923.6	929.6	932.8	931.9	932.8	928.7	926.4
5°	922.2	921.3	914.8	916.2	916.2	926.4	928.7	930.5	934.2	933.3	934.7
7.5°	914.3	912.5	907.4	908.8	911.6	924.1	926.4	931.5	937.5	940.2	940.7
10°	914.8	912.5	907.4	909.7	912.0	928.7	930.1	937.9	943.9	944.9	943.5
12.5°	924.1	922.2	915.7	917.6	919.4	935.6	937.9	944.9	951.3	950.4	946.3
15°	941.2	939.3	931.0	931.9	931.5	943.9	949.0	950.9	958.3	953.7	943.5
17.5°	966.6	966.1	956.9	956.4	952.3	960.1	962.9	958.3	962.0	951.8	936.1
20°	997.6	997.1	986.5	982.8	978.2	981.4	982.8	969.8	963.4	947.6	927.3
22.5°	1031.4	1030.0	1019.8	1014.7	1007.3	1005.9	1006.8	982.8	967.1	946.7	924.1
25°	1075.3	1073.9	1059.6	1054.0	1042.5	1040.1	1041.5	1010.5	986.5	959.7	932.4
27.5°	1113.2	1112.8	1104.0	1095.6	1085.5	1082.7	1084.1	1051.7	1021.2	990.7	958.7
30°	1162.2	1158.5	1144.2	1138.2	1135.0	1132.2	1130.8	1105.8	1073.0	1036.4	1000.8
32.5°	1208.0	1205.3	1191.8	1189.1	1190.9	1191.4	1189.1	1165.9	1133.1	1091.5	1048.5
35°	1263.5	1260.3	1246.0	1248.3	1258.9	1265.8	1266.8	1239.9	1199.2	1146.1	1092.4
37.5°	1313.0	1311.6	1307.0	1317.6	1337.5	1351.4	1347.2	1327.8	1271.9	1201.6	1128.5
40°	1365.7	1365.3	1364.8	1390.3	1426.3	1438.4	1436.5	1418.5	1349.1	1267.7	1178.9
42.5°	1421.2	1421.7	1424.0	1464.7	1516.0	1533.2	1530.4	1507.7	1430.5	1350.0	1244.1
45°	1483.2	1488.3	1492.5	1541.0	1606.2	1631.2	1628.4	1598.4	1510.0	1436.0	1315.3
47.5°	1549.8	1556.7	1560.0	1616.9	1693.2	1730.6	1724.2	1685.8	1583.6	1518.4	1389.8
50°	1634.4	1640.5	1642.3	1699.7	1782.9	1825.9	1820.8	1773.2	1657.1	1601.1	1486.0
52.5°	1728.8	1738.5	1741.7	1800.0	1876.8	1918.0	1914.3	1863.4	1741.7	1690.4	1602.1
55°	1840.3	1854.1	1862.9	1926.7	2001.2	2041.4	2035.4	1972.1	1858.3	1796.8	1741.3
57.5°	1954.5	1958.7	1991.0	2076.6	2170.0	2219.0	2207.0	2108.0	1999.4	1923.5	1901.8
60°	1991.5	1992.4	2050.7	2177.9	2335.6	2426.7	2412.8	2267.1	2183.0	2084.0	2099.7
62.5°	2006.8	2012.3	2093.7	2271.3	2494.2	2631.6	2623.3	2426.7	2317.5	2243.5	2320.8
65°	1960.5	1965.6	2058.6	2264.4	2546.0	2749.5	2745.8	2515.5	2342.5	2312.9	2479.4
67.5°	1776.9	1805.6	1915.2	2136.3	2442.4	2681.5	2681.5	2458.1	2246.3	2292.1	2503.5
70°	1517.0	1501.7	1629.4	1858.8	2180.7	2433.6	2441.0	2251.9	2025.7	2102.5	2328.6
72.5°	1161.3	1154.8	1276.0	1478.6	1754.2	2015.1	2028.0	1876.8	1646.0	1736.2	2008.6
75°	877.3	863.5	952.7	1095.6	1276.5	1464.7	1482.3	1351.4	1153.0	1281.1	1502.6
77.5°	517.1	531.9	603.6	706.7	863.5	930.1	944.9	831.1	661.4	756.6	764.0
80°	232.2	233.1	302.5	367.7	453.2	486.1	475.4	421.3	317.3	342.7	203.0
82.5°	79.5	91.6	143.4	171.6	205.8	194.2	189.6	183.1	172.0	186.8	93.0
85°	25.4	39.3	75.8	90.6	97.1	84.2	82.8	90.6	117.5	139.7	62.4
87.5°	4.6	15.3	43.5	51.3	52.3	39.3	37.9	47.6	74.0	88.3	35.6
90°	0.0	8.8	22.7	25.0	23.1	16.6	15.7	19.9	32.4	33.3	11.6
92.5°	0.0	3.2	10.2	10.6	7.9	4.6	4.2	4.2	4.6	3.2	2.8
95°	0.0	0.5	3.2	2.3	1.8	1.4	1.4	1.4	1.4	1.4	1.4
97.5°	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.4	1.4
100°	0.0	0.5	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.4	1.4
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
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P226229

CATALOG NUMBER: MLN-B1-D-U-T4-XX

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
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



REPORT NUMBER: P226229

CATALOG NUMBER: MLN-B1-D-U-T4-XX

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	931.0	931.0	931.0	931.0	931.0	931.0	931.0	931.0	931.0	931.0	931.0
2.5°	927.3	926.8	928.2	932.4	932.4	932.8	924.5	924.1	926.4	935.6	935.6
5°	936.5	935.6	932.8	932.4	931.5	928.7	919.9	917.1	919.0	926.8	926.8
7.5°	941.2	938.4	933.3	928.2	924.1	919.9	908.3	905.1	906.9	914.8	914.3
10°	942.1	937.0	928.7	920.4	914.8	910.2	894.5	891.7	893.1	901.4	901.9
12.5°	941.2	933.8	922.2	914.8	910.2	906.0	887.5	880.1	876.4	883.8	883.4
15°	936.1	927.8	917.1	915.3	913.9	908.3	882.9	865.8	856.1	860.7	860.2
17.5°	927.8	920.8	914.3	921.3	924.5	913.4	877.3	849.6	835.3	836.2	834.3
20°	918.5	910.2	911.1	927.8	933.8	916.2	869.9	830.6	810.7	807.0	804.3
22.5°	911.6	903.2	910.6	935.2	938.9	913.9	855.6	805.7	778.4	772.8	772.4
25°	915.7	907.4	920.4	941.2	938.4	903.2	832.9	779.8	745.1	738.1	737.2
27.5°	934.7	923.1	936.1	944.9	928.2	876.4	802.9	745.1	708.5	698.8	697.9
30°	967.1	947.2	948.1	939.8	903.7	837.6	762.2	699.3	662.8	650.7	652.6
32.5°	1005.0	974.5	952.7	917.1	858.4	781.1	703.9	641.0	610.5	600.3	600.8
35°	1041.1	1002.2	950.9	881.0	797.8	709.5	634.1	581.8	552.2	543.9	545.7
37.5°	1075.8	1030.4	941.6	829.7	723.3	634.5	562.9	511.5	486.1	477.8	478.7
40°	1122.9	1067.0	928.2	771.4	647.0	552.7	485.2	438.0	417.6	410.2	412.5
42.5°	1181.7	1112.3	915.7	714.1	576.3	476.8	407.9	369.1	350.1	344.6	346.4
45°	1243.2	1165.0	906.0	661.4	511.1	397.7	344.6	308.0	288.1	282.1	283.0
47.5°	1314.9	1223.3	912.5	623.4	451.9	338.1	290.0	253.4	232.2	224.3	224.8
50°	1402.7	1304.7	937.0	603.1	391.3	293.7	247.4	208.6	184.1	173.9	171.1
52.5°	1519.7	1400.9	975.9	598.9	346.4	261.8	210.4	171.6	147.1	136.0	134.6
55°	1650.6	1507.3	1025.3	597.5	316.3	239.6	182.7	142.9	120.2	109.1	107.8
57.5°	1798.6	1632.6	1081.8	588.8	300.6	225.2	164.6	125.8	106.8	96.2	94.3
60°	1999.8	1802.8	1184.0	588.3	298.8	222.9	159.1	121.6	101.3	89.3	87.9
62.5°	2240.3	2018.8	1333.4	596.6	312.6	236.3	167.0	120.7	97.6	85.6	84.2
65°	2398.0	2172.3	1428.2	583.7	314.5	248.4	174.4	116.5	93.4	82.3	80.9
67.5°	2403.6	2170.0	1382.9	506.9	270.6	227.5	165.6	110.1	89.3	79.1	78.2
70°	2226.0	2001.7	1222.8	392.2	216.9	181.3	142.9	100.4	83.7	74.5	73.5
72.5°	1899.0	1700.1	1001.3	294.1	173.4	147.5	124.9	93.4	77.7	68.9	68.4
75°	1357.0	1212.2	728.0	230.3	150.3	135.0	115.2	92.5	73.5	64.7	63.4
77.5°	603.6	514.8	404.2	202.6	144.3	135.0	110.5	90.2	69.4	57.3	56.0
80°	155.4	162.8	208.6	191.0	140.1	130.0	103.1	82.3	63.8	48.6	47.2
82.5°	86.9	88.3	129.5	150.8	117.0	99.9	87.9	67.5	54.6	40.7	38.8
85°	60.6	57.8	77.7	83.2	67.5	68.0	63.4	49.9	41.6	29.1	25.9
87.5°	32.8	34.7	41.2	36.1	32.8	32.8	41.6	34.7	30.1	16.6	11.6
90°	9.7	12.9	20.8	18.0	16.2	13.9	21.3	19.9	18.5	8.8	0.0
92.5°	2.8	2.3	3.7	4.2	4.6	4.6	7.9	8.8	9.2	2.8	0.0
95°	1.4	0.9	0.9	0.5	1.4	1.8	2.8	3.2	3.7	0.9	0.0
97.5°	1.4	1.4	0.9	0.9	0.5	0.5	0.9	0.9	0.9	0.0	0.0
100°	1.4	1.4	0.9	0.9	0.9	0.5	0.5	0.5	0.5	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
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P226229

CATALOG NUMBER: MLN-B1-D-U-T4-XX

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
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)