

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: McGRAW-EDISON

Report Number: P821394

Luminaire Tested: **TT-D4-750-24VDC-WQ-UPL**

Issue Date: 7/23/2020

Test Information

Test Method: LM-79-08
Report Number: P821394
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G2-2002-677-3) AND
Test Lab: INNOVATION CENTER
Issue Date: 7/23/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-D4-750-24VDC-WQ-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT WITH UPLIGHT
5000K, 70 CRI LEDS AND WIDE DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

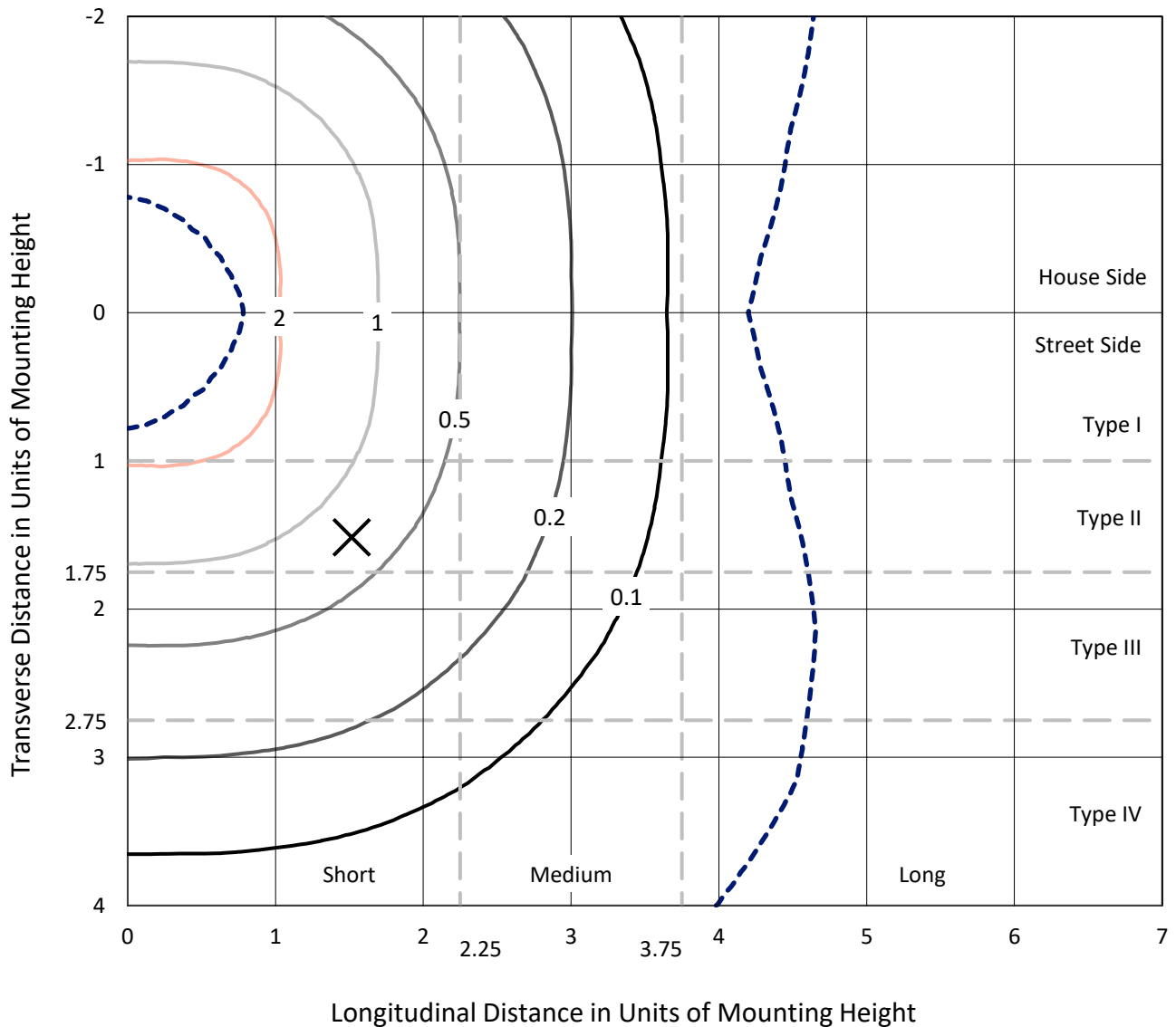
Lumens per Lamp: N/A
Luminaire Lumens: 8473.4 lumens
Efficiency: N/A
Efficacy: 148.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short
BUG Rating: B3 - U4 - G2

Input Watts (W): 57
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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Iso-Footcandle Lines of Horizontal Illumination

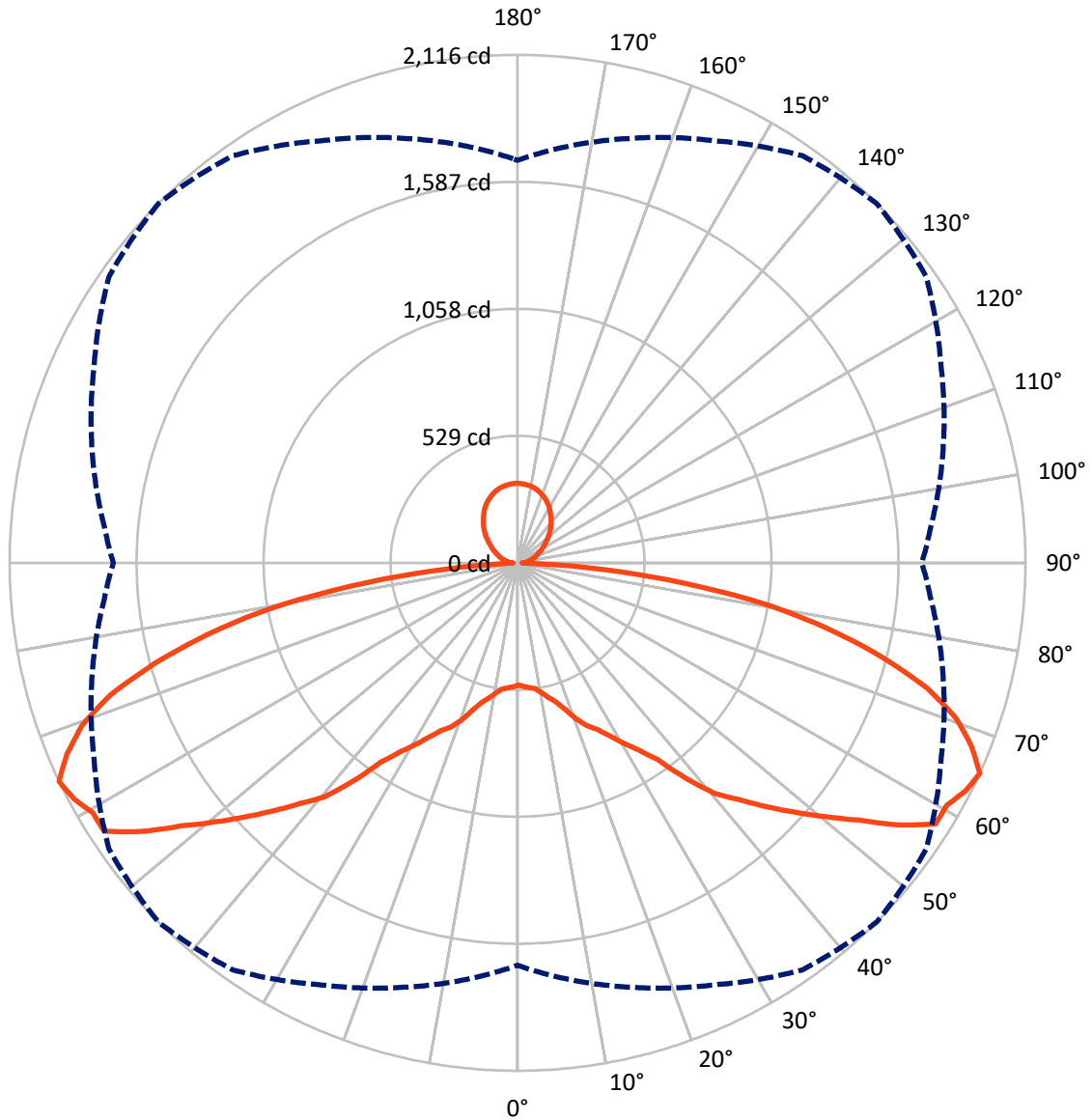
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 2.6 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



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

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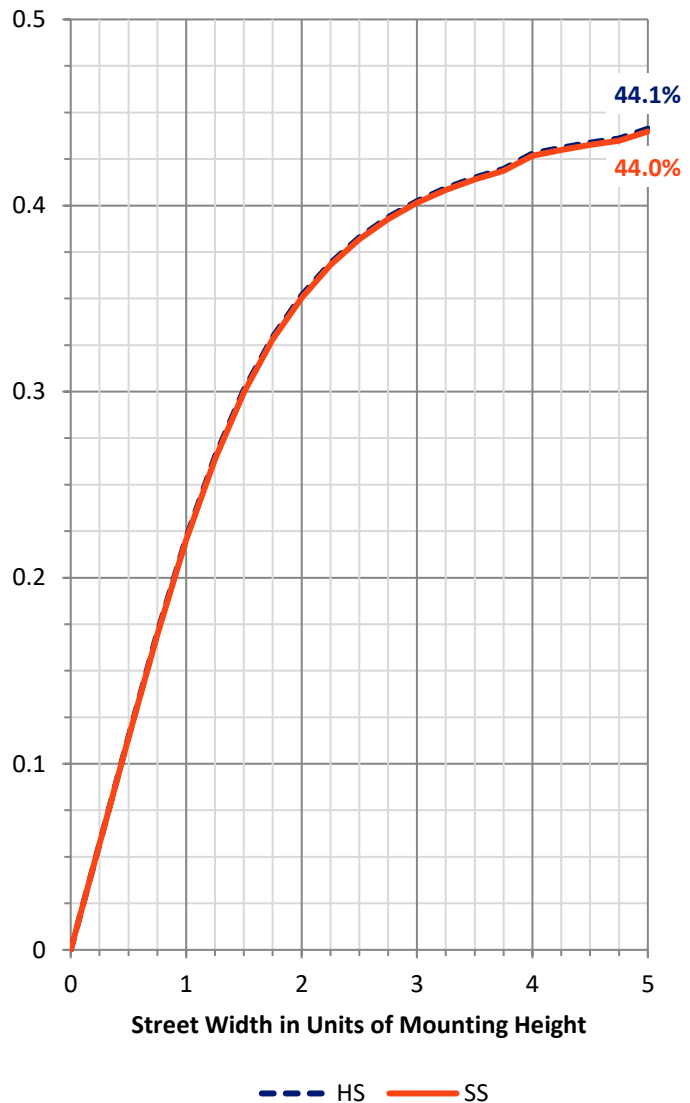
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3786.7	450.0	4236.7
	% Fixture	44.7	5.3	50.0
Street Side	Lumens	3786.7	450.0	4236.7
	% Fixture	44.7	5.3	50.0
Total	Lumens	7573.3	900.0	8473.4
	% Fixture	89.4	10.6	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.8	0.6
10°-20°	174.7	2.1
20°-30°	358.8	4.2
30°-40°	637.4	7.5
40°-50°	1074.4	12.7
50°-60°	1584.9	18.7
60°-70°	1860.1	22.0
70°-80°	1449.1	17.1
80°-90°	383.2	4.5
90°-100°	46.1	0.5
100°-110°	71.4	0.8
110°-120°	99.4	1.2
120°-130°	128.8	1.5
130°-140°	150.0	1.8
140°-150°	152.1	1.8
150°-160°	131.9	1.6
160°-170°	89.0	1.1
170°-180°	31.3	0.4
0°-90°	7573.3	89.4
0°-180°	8473.4	100.0

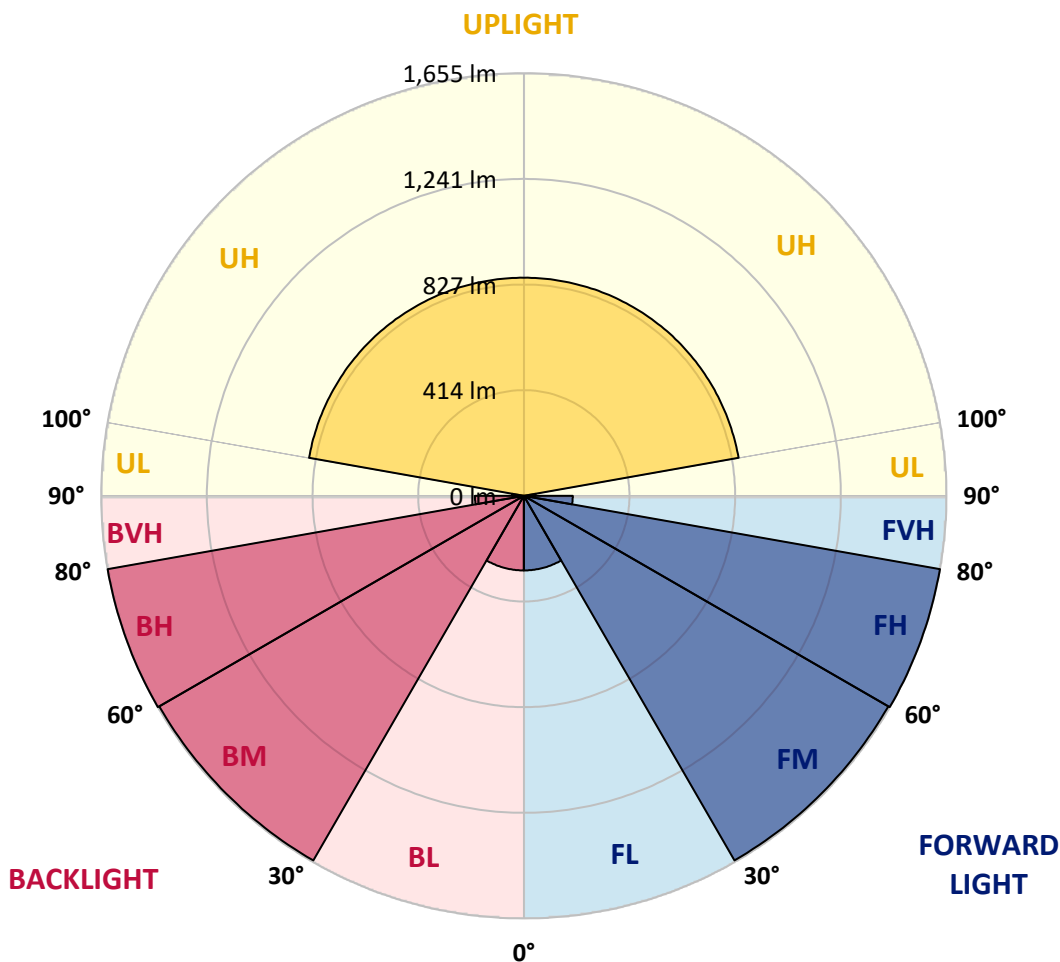


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	292.1	3.4			
FM (30°-60°)	1648.3	19.5			
FH (60°-80°)	1654.6	19.5			G1/1800
FVH (80°-90°)	191.6	2.3			G2/225
BL (0°-30°)	292.1	3.4	B1/500		
BM (30°-60°)	1648.3	19.5	B2/2500		
BH (60°-80°)	1654.6	19.5	B3/2500		G1/1800
BVH (80°-90°)	191.6	2.3			G2/225
UL (90°-100°)	46.1	0.5		U2/50	
UH (100°-180°)	853.9	10.1		U4/1000	

BUG Rating: B3-U4-G2
 Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	509.4	509.4	509.4	509.4	509.4	509.4	509.4	509.4	509.4	509.4	509.4
2.5°	517.7	517.7	517.7	516.6	516.6	516.6	516.6	517.7	517.7	517.7	517.7
5°	529.7	529.7	527.3	524.9	522.5	522.5	523.7	524.9	526.1	528.5	528.5
7.5°	536.8	536.8	535.6	533.2	529.7	529.7	530.8	533.2	534.4	534.4	533.2
10°	546.3	547.5	551.1	552.3	549.9	549.9	551.1	552.3	549.9	546.3	546.3
12.5°	568.9	570.1	574.9	578.5	578.5	576.1	577.3	579.6	573.7	567.7	568.9
15°	601.1	601.1	602.3	605.8	603.4	601.1	603.4	604.6	601.1	599.9	602.3
17.5°	643.9	643.9	636.8	642.7	643.9	642.7	645.1	639.2	635.6	640.3	642.7
20°	690.3	685.6	682.0	686.8	696.3	692.7	697.5	684.4	680.8	683.2	684.4
22.5°	720.1	723.7	726.0	728.4	741.5	736.8	741.5	727.2	724.8	720.1	716.5
25°	755.8	759.4	773.6	766.5	774.8	767.7	773.6	765.3	770.1	755.8	755.8
27.5°	796.3	803.4	811.7	808.2	818.9	815.3	818.9	807.0	808.2	802.2	799.8
30°	851.0	851.0	848.6	855.8	874.8	872.4	873.6	858.2	847.4	848.6	853.4
32.5°	905.8	898.6	902.2	923.6	935.5	930.8	933.1	926.0	902.2	897.4	901.0
35°	956.9	967.7	976.0	993.8	1010.5	1008.1	1006.9	995.0	979.6	960.5	954.6
37.5°	1036.7	1048.6	1071.2	1103.3	1133.1	1139.0	1123.6	1108.1	1072.4	1045.0	1030.7
40°	1141.4	1142.6	1168.8	1230.7	1258.1	1262.8	1254.5	1228.3	1173.6	1142.6	1141.4
42.5°	1233.1	1224.7	1267.6	1320.0	1345.0	1347.3	1341.4	1320.0	1267.6	1223.6	1231.9
45°	1304.5	1304.5	1355.7	1397.3	1437.8	1447.3	1436.6	1391.4	1356.9	1305.7	1302.1
47.5°	1370.0	1387.8	1430.7	1481.8	1539.0	1552.1	1539.0	1485.4	1427.1	1389.0	1368.8
50°	1448.5	1469.9	1500.9	1580.6	1644.9	1662.7	1643.7	1585.4	1500.9	1468.7	1456.8
52.5°	1540.2	1558.0	1606.8	1706.8	1754.4	1780.6	1765.1	1709.2	1609.2	1560.4	1550.9
55°	1649.7	1633.0	1709.2	1805.6	1893.7	1928.2	1897.2	1808.0	1721.1	1633.0	1649.7
57.5°	1705.6	1686.6	1793.7	1885.3	2007.9	2053.1	2015.1	1892.5	1793.7	1692.5	1704.4
60°	1710.4	1718.7	1799.6	1949.6	2034.1	2053.1	2041.2	1960.3	1803.2	1725.8	1703.2
62.5°	1696.1	1747.3	1816.3	1971.0	2047.2	2093.6	2053.1	1973.4	1823.4	1755.6	1697.3
65°	1677.0	1728.2	1830.6	1940.1	2069.8	2116.2	2078.1	1946.0	1835.3	1728.2	1684.2
67.5°	1643.7	1625.9	1752.0	1898.4	2011.5	2038.9	2015.1	1900.8	1750.8	1623.5	1647.3
70°	1537.8	1522.3	1630.6	1791.3	1899.6	1937.7	1909.1	1793.7	1633.0	1525.9	1540.2
72.5°	1380.7	1385.4	1490.2	1643.7	1760.3	1784.2	1768.7	1642.5	1496.1	1391.4	1372.3
75°	1197.4	1209.3	1309.2	1448.5	1554.4	1568.7	1553.2	1454.5	1308.1	1216.4	1191.4
77.5°	984.3	1002.2	1083.1	1222.4	1292.6	1324.7	1299.7	1225.9	1089.1	1006.9	981.9
80°	762.9	768.9	826.0	937.9	1030.7	1052.2	1028.4	941.5	833.2	771.3	753.4
82.5°	499.9	509.4	560.6	646.3	707.0	701.0	707.0	639.2	566.5	507.0	477.3
85°	222.6	241.6	276.1	316.6	355.9	366.6	355.9	321.4	276.1	236.9	232.1
87.5°	15.5	17.9	21.4	22.6	25.0	19.0	19.0	19.0	16.7	19.0	15.5
90°	32.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5
92.5°	37.6	37.1	37.1	36.6	36.6	36.6	36.6	36.6	36.6	36.6	36.6
95°	42.7	42.7	42.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7
97.5°	48.3	48.3	48.3	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8
100°	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9
102.5°	60.5	60.5	60.5	60.5	60.5	60.5	60.5	61.0	60.5	60.5	60.5
105°	67.1	67.1	67.1	67.1	67.1	67.1	67.1	68.1	67.1	67.1	67.1
107.5°	74.2	74.2	74.7	74.7	74.7	74.7	74.7	75.2	74.7	74.7	74.7
110°	81.3	81.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	89.9	89.9	90.9	90.9	90.9	90.9	91.4	91.4	90.9	90.9	90.9
115°	98.6	98.6	99.6	99.6	99.6	99.6	100.6	100.6	99.6	99.6	99.6
117.5°	108.8	108.8	109.2	109.8	109.8	109.8	110.8	110.8	109.8	109.8	109.8
120°	118.9	118.9	118.9	119.9	119.9	119.9	121.0	121.0	119.9	119.9	119.9
122.5°	130.6	130.6	131.1	131.6	131.6	131.6	132.6	132.6	132.1	132.1	131.6
125°	142.3	142.3	143.3	143.3	143.3	143.3	144.3	144.3	144.3	144.3	143.3
127.5°	155.0	155.0	156.0	156.0	156.0	156.0	157.0	157.0	157.0	157.0	156.0
130°	167.7	167.7	168.7	168.7	168.7	168.7	169.7	169.7	169.7	169.7	168.7
132.5°	180.9	180.9	181.4	181.4	181.4	181.4	182.4	182.4	182.4	182.4	181.9
135°	194.1	194.1	194.1	194.1	194.1	195.1	195.1	195.1	195.1	195.1	195.1
137.5°	206.8	206.3	206.8	206.3	206.8	207.3	207.3	207.3	207.3	207.3	207.3
140°	219.5	218.5	219.5	218.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5
142.5°	231.2	230.7	231.2	230.2	231.2	231.2	231.2	231.2	231.2	231.2	231.2
145°	242.9	242.9	242.9	241.9	242.9	242.9	242.9	242.9	242.9	242.9	242.9
147.5°	255.1	254.6	255.1	254.1	255.1	255.1	255.1	255.1	255.1	255.1	255.1
150°	267.3	266.3	267.3	266.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3
152.5°	277.0	276.5	277.5	276.5	277.0	277.0	277.5	277.0	277.0	277.0	277.0
155°	286.6	286.6	287.6	286.6	286.6	286.6	287.6	286.6	286.6	286.6	286.6
157.5°	294.8	294.8	295.8	294.8	294.8	294.8	295.8	294.8	294.8	294.8	294.8
160°	302.9	302.9	303.9	302.9	302.9	302.9	303.9	302.9	302.9	302.9	302.9
162.5°	309.5	309.5	310.5	309.5	309.5	309.5	310.5	309.5	309.5	309.5	309.5
165°	316.1	316.1	317.1	316.1	316.1	316.1	317.1	316.1	316.1	316.1	316.1
167.5°	320.2	320.2	321.2	320.2	320.2	320.2	321.2	320.2	320.2	320.2	320.2
170°	324.2	324.2	325.2	324.2	324.2	324.2	325.2	324.2	324.2	324.2	324.2
172.5°	326.8	326.8	327.8	326.8	327.2	326.8	327.8	326.8	326.8	326.8	326.8
175°	329.3	329.3	330.3	329.3	330.3	329.3	330.3	329.3	329.3	329.3	329.3
177.5°	330.3	330.3	330.8	330.3	330.8	330.3	330.8	330.3	330.3	330.3	330.3
180°	331.3	331.3	331.3	331.3	331.3	331.3	331.3	331.3	331.3	331.3	331.3

(END OF REPORT)