

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: P821512

Luminaire Tested: **TT-D5-735-12VDC-WQ-UPL**

Issue Date: 7/23/2020

Test Information

Test Method: LM-79-08
Report Number: P821512
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G2-2002-677-2) AND
Test Lab: INNOVATION CENTER
Issue Date: 7/23/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-D5-735-12VDC-WQ-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
3500K, 70 CRI LEDS AND WIDE DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

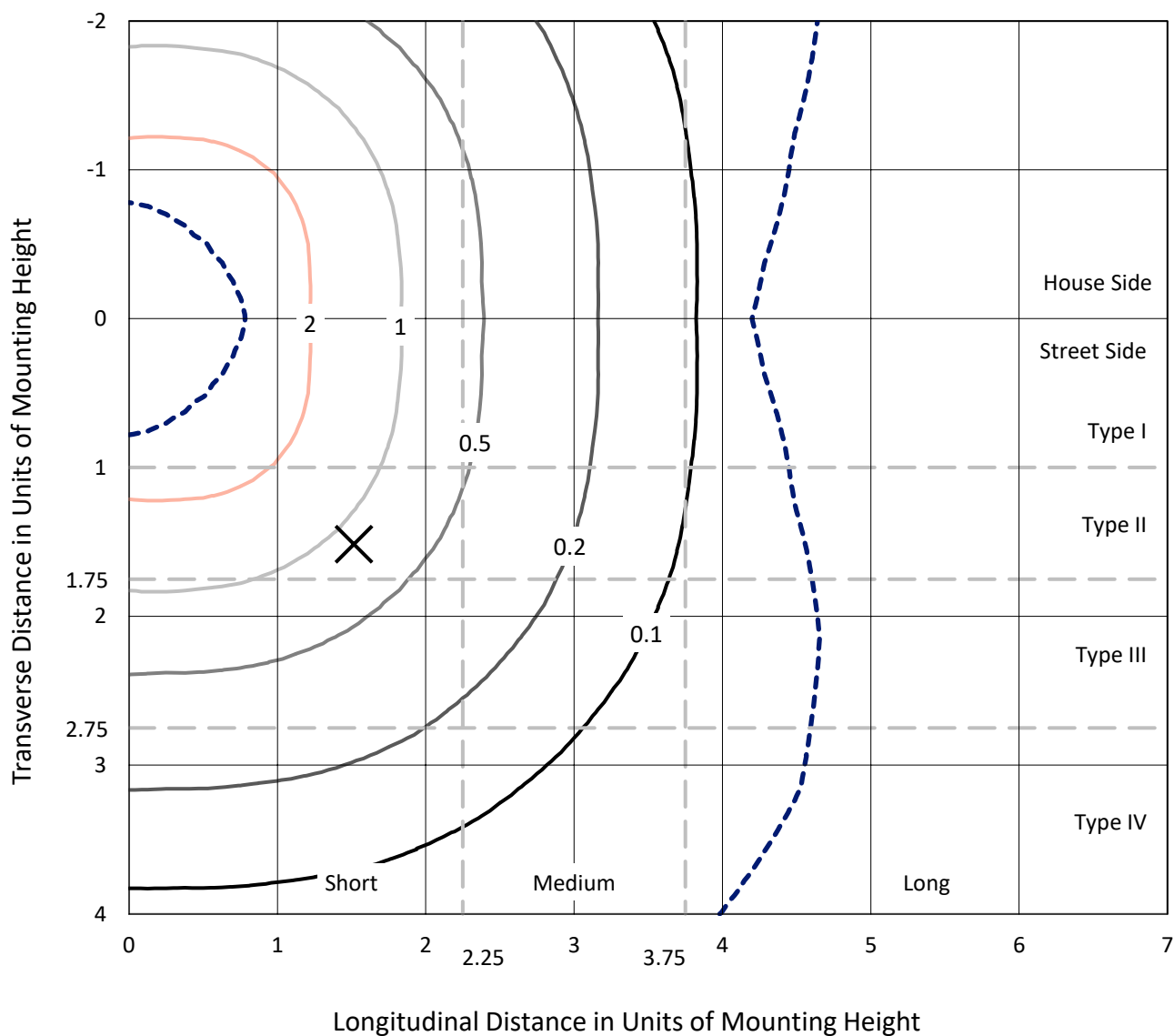
Lumens per Lamp: N/A
Luminaire Lumens: 9840.7 lumens
Efficiency: N/A
Efficacy: 134.8 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short
BUG Rating: B3 - U4 - G3

Input Watts (W): 73
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

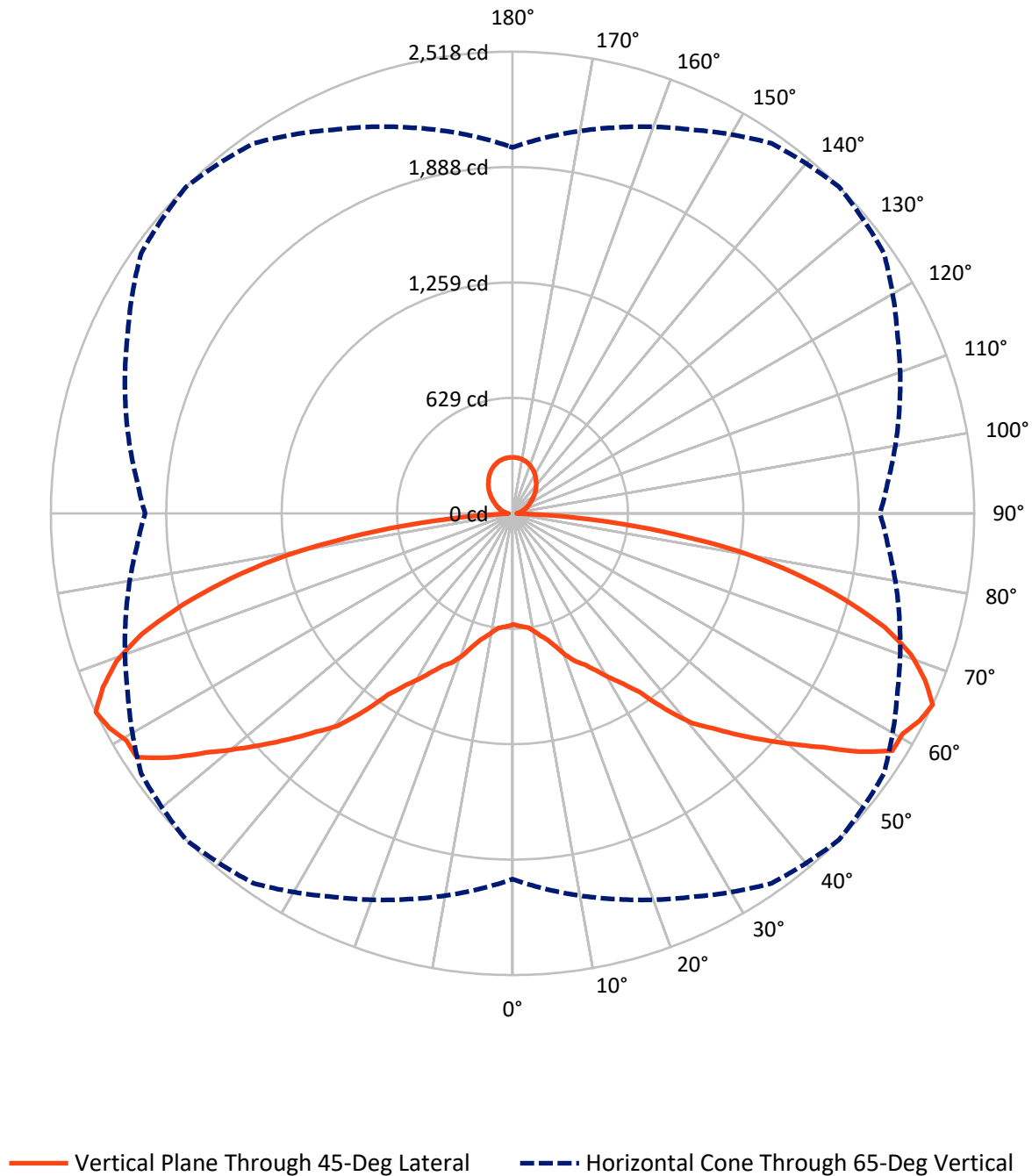
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 3.1 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



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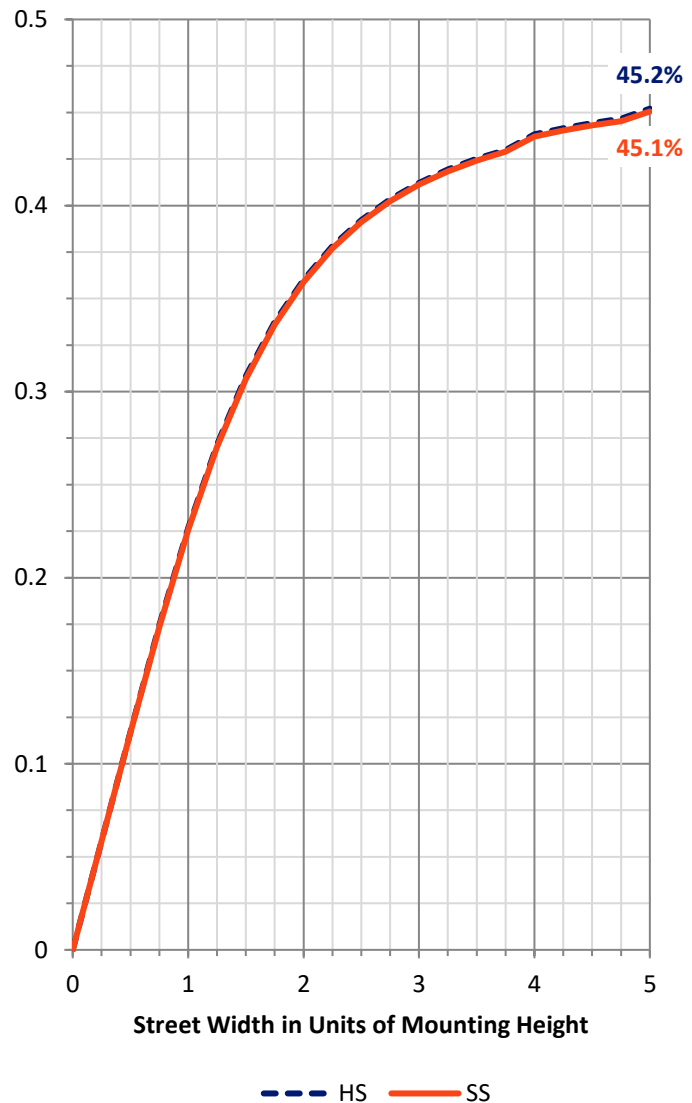
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4504.5	415.9	4920.4
	% Fixture	45.8	4.2	50.0
Street Side	Lumens	4504.5	415.9	4920.4
	% Fixture	45.8	4.2	50.0
Total	Lumens	9009.0	831.7	9840.7
	% Fixture	91.5	8.5	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.4	0.6
10°-20°	207.9	2.1
20°-30°	426.8	4.3
30°-40°	758.3	7.7
40°-50°	1278.2	13.0
50°-60°	1885.6	19.2
60°-70°	2213.0	22.5
70°-80°	1724.1	17.5
80°-90°	454.7	4.6
90°-100°	42.6	0.4
100°-110°	66.0	0.7
110°-120°	91.9	0.9
120°-130°	119.0	1.2
130°-140°	138.7	1.4
140°-150°	140.5	1.4
150°-160°	121.9	1.2
160°-170°	82.2	0.8
170°-180°	28.9	0.3
0°-90°	9009.0	91.5
0°-180°	9840.7	100.0

Coefficient of Utilization



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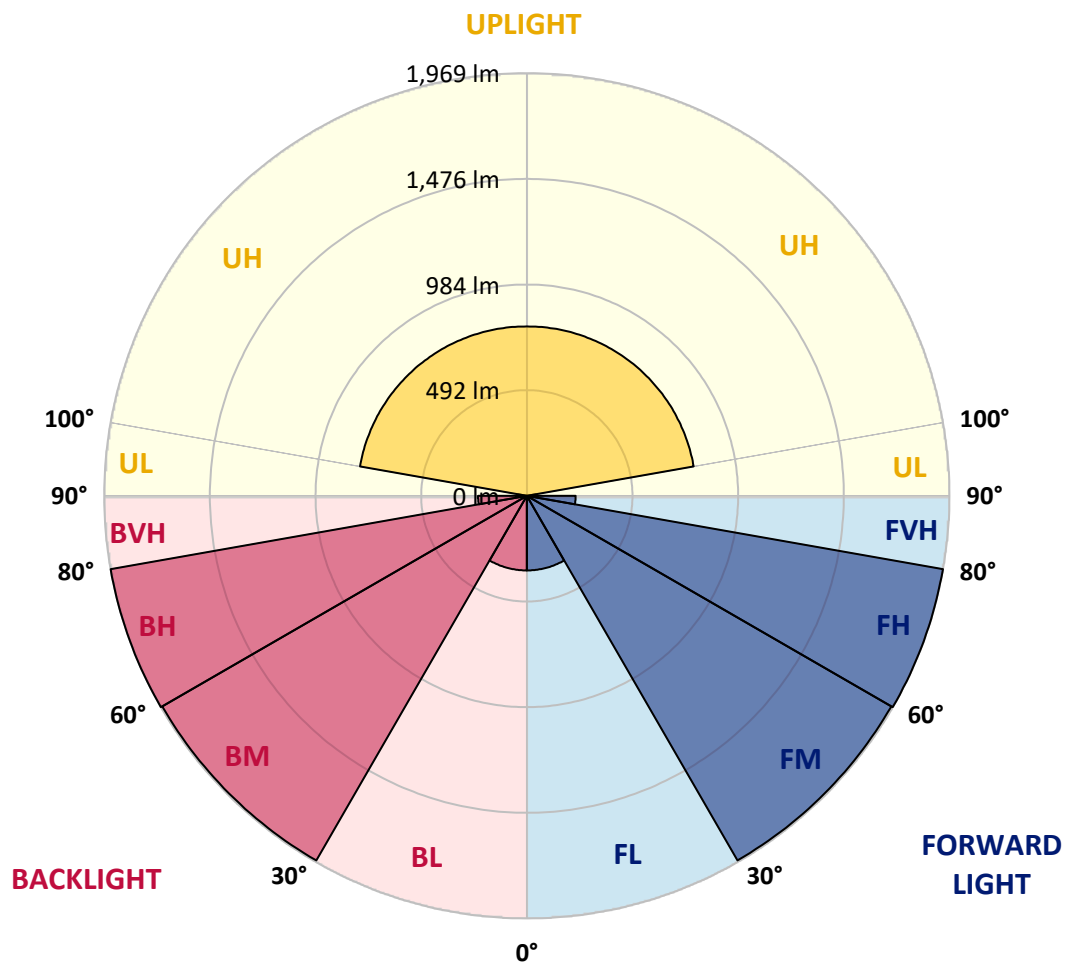
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	347.6	3.5			
FM	(30°-60°)	1961.1	19.9			
FH	(60°-80°)	1968.5	20.0			G2/5000
FVH	(80°-90°)	227.4	2.3			G3/500
BL	(0°-30°)	347.6	3.5	B1/500		
BM	(30°-60°)	1961.1	19.9	B2/2500		
BH	(60°-80°)	1968.5	20.0	B3/2500		G2/5000
BVH	(80°-90°)	227.4	2.3			G3/500
UL	(90°-100°)	42.6	0.4		U2/50	
UH	(100°-180°)	789.1	8.0		U4/1000	

BUG Rating: B3-U4-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	606.1	606.1	606.1	606.1	606.1	606.1	606.1	606.1	606.1	606.1	606.1
2.5°	616.0	616.0	616.0	614.6	614.6	614.6	614.6	616.0	616.0	616.0	616.0
5°	630.1	630.1	627.3	624.5	621.6	621.6	623.1	624.5	625.9	628.7	628.7
7.5°	638.6	638.6	637.2	634.4	630.1	630.1	631.6	634.4	635.8	635.8	634.4
10°	650.0	651.4	655.6	657.0	654.2	654.2	655.6	657.0	654.2	650.0	650.0
12.5°	676.9	678.3	683.9	688.2	688.2	685.4	686.8	689.6	682.5	675.5	676.9
15°	715.1	715.1	716.5	720.8	717.9	715.1	717.9	719.3	715.1	713.7	716.5
17.5°	766.1	766.1	757.6	764.7	766.1	764.7	767.5	760.4	756.2	761.8	764.7
20°	821.3	815.6	811.4	817.1	828.4	824.1	829.8	814.2	810.0	812.8	814.2
22.5°	856.7	861.0	863.8	866.6	882.2	876.5	882.2	865.2	862.4	856.7	852.5
25°	899.2	903.4	920.4	911.9	921.8	913.3	920.4	910.5	916.2	899.2	899.2
27.5°	947.3	955.8	965.7	961.5	974.2	970.0	974.2	960.1	961.5	954.4	951.6
30°	1012.5	1012.5	1009.6	1018.1	1040.8	1038.0	1039.4	1021.0	1008.2	1009.6	1015.3
32.5°	1077.6	1069.1	1073.4	1098.8	1113.0	1107.3	1110.2	1101.7	1073.4	1067.7	1071.9
35°	1138.5	1151.2	1161.2	1182.4	1202.2	1199.4	1198.0	1183.8	1165.4	1142.7	1135.7
37.5°	1233.4	1247.5	1274.4	1312.7	1348.1	1355.1	1336.7	1318.3	1275.9	1243.3	1226.3
40°	1358.0	1359.4	1390.5	1464.2	1496.8	1502.4	1492.5	1461.4	1396.2	1359.4	1358.0
42.5°	1467.0	1457.1	1508.1	1570.4	1600.1	1603.0	1595.9	1570.4	1508.1	1455.7	1465.6
45°	1552.0	1552.0	1612.9	1662.4	1710.6	1721.9	1709.2	1655.3	1614.3	1553.4	1549.1
47.5°	1629.9	1651.1	1702.1	1763.0	1830.9	1846.5	1830.9	1767.2	1697.8	1652.5	1628.4
50°	1723.3	1748.8	1785.6	1880.5	1957.0	1978.2	1955.5	1886.2	1785.6	1747.4	1733.2
52.5°	1832.4	1853.6	1911.7	2030.6	2087.2	2118.4	2100.0	2033.4	1914.5	1856.4	1845.1
55°	1962.6	1942.8	2033.4	2148.1	2252.9	2294.0	2257.2	2151.0	2047.6	1942.8	1962.6
57.5°	2029.2	2006.5	2134.0	2243.0	2388.9	2442.7	2397.4	2251.5	2134.0	2013.6	2027.8
60°	2034.8	2044.8	2141.1	2319.5	2420.0	2442.7	2428.5	2332.2	2145.3	2053.3	2026.4
62.5°	2017.9	2078.7	2160.9	2345.0	2435.6	2490.8	2442.7	2347.8	2169.4	2088.7	2019.3
65°	1995.2	2056.1	2177.9	2308.1	2462.5	2517.7	2472.4	2315.2	2183.5	2056.1	2003.7
67.5°	1955.5	1934.3	2084.4	2258.6	2393.1	2425.7	2397.4	2261.4	2083.0	1931.5	1959.8
70°	1829.5	1811.1	1940.0	2131.1	2260.0	2305.3	2271.3	2134.0	1942.8	1815.4	1832.4
72.5°	1642.6	1648.3	1772.9	1955.5	2094.3	2122.6	2104.2	1954.1	1780.0	1655.3	1632.7
75°	1424.5	1438.7	1557.6	1723.3	1849.3	1866.3	1847.9	1730.4	1556.2	1447.2	1417.5
77.5°	1171.1	1192.3	1288.6	1454.3	1537.8	1576.1	1546.3	1458.5	1295.7	1198.0	1168.2
80°	907.7	914.8	982.7	1115.8	1226.3	1251.8	1223.5	1120.1	991.2	917.6	896.4
82.5°	594.7	606.1	667.0	768.9	841.1	834.0	841.1	760.4	674.0	603.2	567.8
85°	264.8	287.5	328.5	376.7	423.4	436.1	423.4	382.3	328.5	281.8	276.1
87.5°	18.4	21.2	25.5	26.9	29.7	22.7	22.7	22.7	19.8	22.7	18.4
90°	30.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1
92.5°	34.8	34.2	34.2	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8
95°	39.4	39.4	39.4	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5
97.5°	44.6	44.6	44.6	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2
100°	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8
102.5°	55.9	55.9	55.9	55.9	55.9	55.9	55.9	56.4	55.9	55.9	55.9
105°	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.9	62.0	62.0	62.0
107.5°	68.6	68.6	69.0	69.0	69.0	69.0	69.0	69.5	69.0	69.0	69.0
110°	75.1	75.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	83.1	83.1	84.0	84.0	84.0	84.0	84.6	84.6	84.0	84.0	84.0
115°	91.1	91.1	92.0	92.0	92.0	92.0	93.0	93.0	92.0	92.0	92.0
117.5°	100.5	100.5	101.0	101.4	101.4	101.4	102.4	102.4	101.4	101.4	101.4
120°	109.9	109.9	109.9	110.8	110.8	110.8	111.8	111.8	110.8	110.8	110.8
122.5°	120.7	120.7	121.2	121.6	121.6	121.6	122.6	122.6	122.1	122.1	121.6
125°	131.5	131.5	132.4	132.4	132.4	132.4	133.4	133.4	133.4	133.4	132.4
127.5°	143.2	143.2	144.2	144.2	144.2	144.2	145.1	145.1	145.1	145.1	144.2
130°	155.0	155.0	155.9	155.9	155.9	155.9	156.8	156.8	156.8	156.8	155.9
132.5°	167.2	167.2	167.6	167.6	167.6	168.1	168.6	168.6	168.6	168.6	168.1
135°	179.4	179.4	179.4	179.4	179.4	180.3	180.3	180.3	180.3	180.3	180.3
137.5°	191.2	190.6	191.2	190.6	191.2	191.6	191.6	191.6	191.6	191.6	191.6
140°	202.9	201.9	202.9	201.9	202.9	202.9	202.9	202.9	202.9	202.9	202.9
142.5°	213.7	213.2	213.7	212.7	213.7	213.7	213.7	213.7	213.7	213.7	213.7
145°	224.5	224.5	224.5	223.5	224.5	224.5	224.5	224.5	224.5	224.5	224.5
147.5°	235.8	235.3	235.8	234.8	235.8	235.8	235.8	235.8	235.8	235.8	235.8
150°	247.0	246.1	247.0	246.1	247.0	247.0	247.0	247.0	247.0	247.0	247.0
152.5°	256.0	255.5	256.4	255.5	256.0	256.0	256.4	256.0	256.0	256.0	256.0
155°	264.9	264.9	265.8	264.9	264.9	264.9	265.8	264.9	264.9	264.9	264.9
157.5°	272.4	272.4	273.3	272.4	272.4	272.4	273.3	272.4	272.4	272.4	272.4
160°	279.9	279.9	280.8	279.9	279.9	279.9	280.8	279.9	279.9	279.9	279.9
162.5°	286.0	286.0	286.9	286.0	286.0	286.0	286.9	286.0	286.0	286.0	286.0
165°	292.1	292.1	293.0	292.1	292.1	292.1	293.0	292.1	292.1	292.1	292.1
167.5°	295.8	295.8	296.8	295.8	295.8	295.8	296.8	295.8	295.8	295.8	295.8
170°	299.6	299.6	300.5	299.6	299.6	299.6	300.5	299.6	299.6	299.6	299.6
172.5°	302.0	302.0	302.8	302.0	302.4	302.0	302.8	302.0	302.0	302.0	302.0
175°	304.3	304.3	305.2	304.3	305.2	304.3	305.2	304.3	304.3	304.3	304.3
177.5°	305.2	305.2	305.7	305.2	305.7	305.2	305.7	305.2	305.2	305.2	305.2
180°	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2

(END OF REPORT)