

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: P821408

Luminaire Tested: **TT-D5-750-24VDC-WQ-UPL**

Issue Date: 7/23/2020

Test Information

Test Method: LM-79-08
Report Number: P821408
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-D5-750-24VDC-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

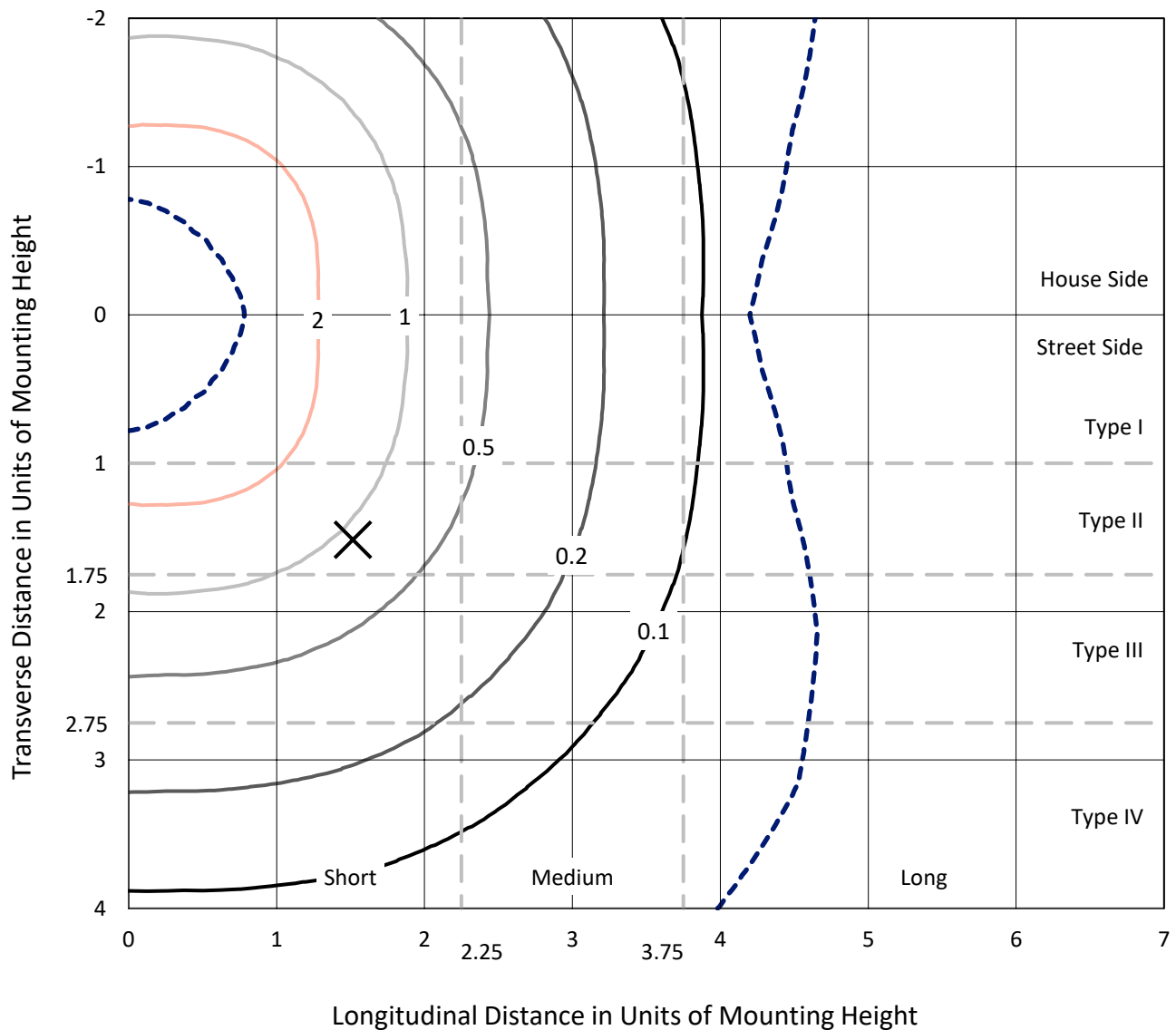
Lumens per Lamp: N/A
Luminaire Lumens: 10431.4 lumens
Efficiency: N/A
Efficacy: 142.9 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short
BUG Rating: B3 - U4 - G3

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

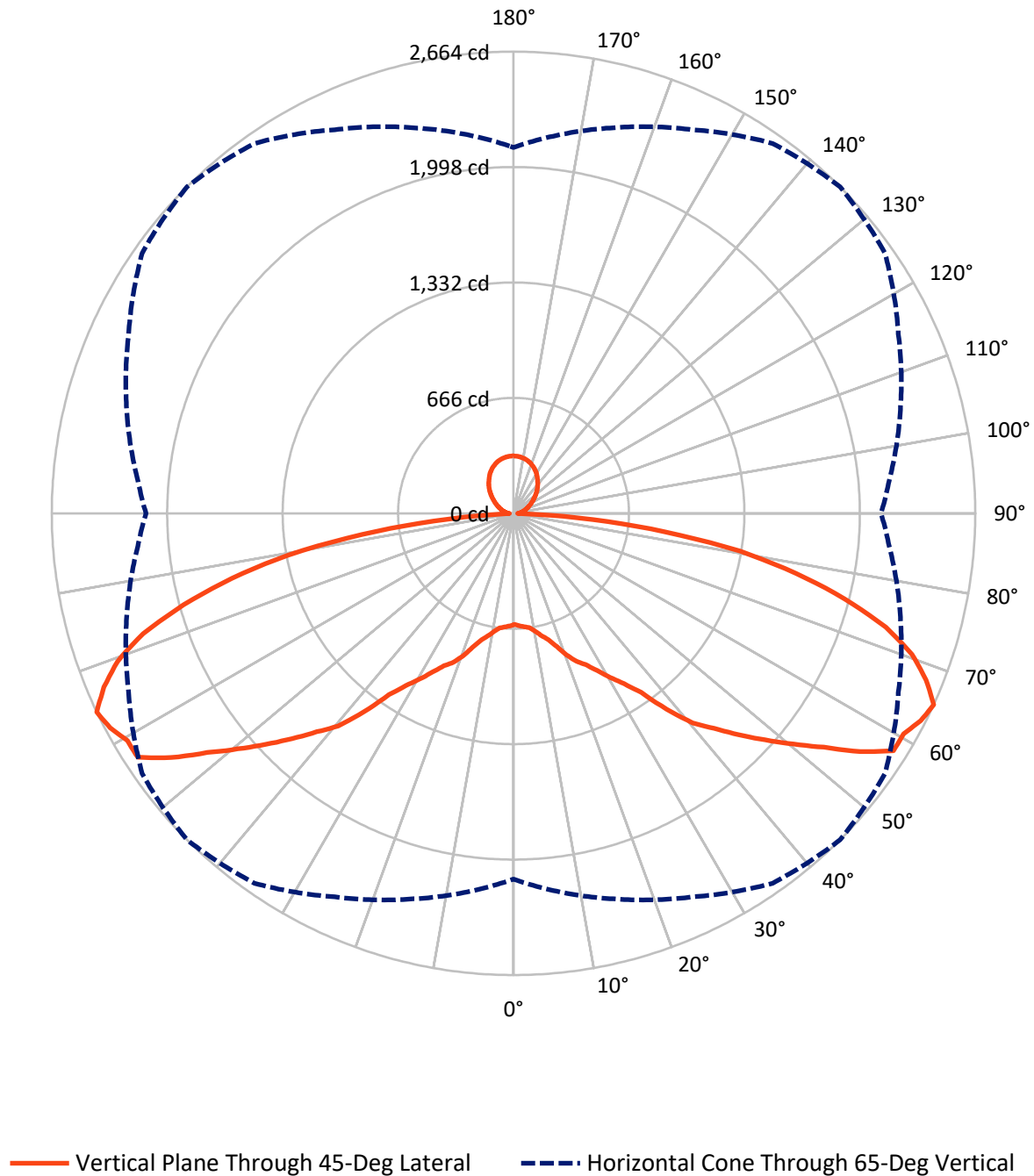
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 3.2 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



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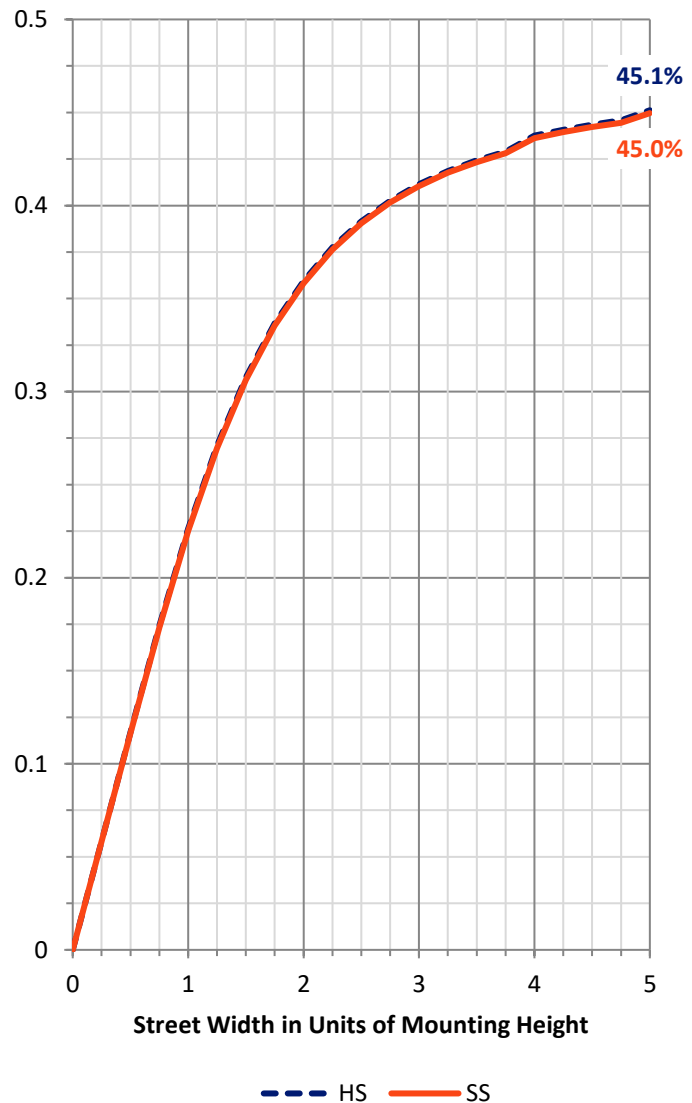
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4765.7	450.0	5215.7
	% Fixture	45.7	4.3	50.0
Street Side	Lumens	4765.7	450.0	5215.7
	% Fixture	45.7	4.3	50.0
Total	Lumens	9531.3	900.0	10431.4
	% Fixture	91.4	8.6	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.9	0.6
10°-20°	219.9	2.1
20°-30°	451.6	4.3
30°-40°	802.2	7.7
40°-50°	1352.3	13.0
50°-60°	1994.9	19.1
60°-70°	2341.2	22.4
70°-80°	1824.0	17.5
80°-90°	481.2	4.6
90°-100°	46.1	0.4
100°-110°	71.4	0.7
110°-120°	99.4	1.0
120°-130°	128.8	1.2
130°-140°	150.0	1.4
140°-150°	152.1	1.5
150°-160°	131.9	1.3
160°-170°	89.0	0.9
170°-180°	31.3	0.3
0°-90°	9531.3	91.4
0°-180°	10431.4	100.0

Coefficient of Utilization



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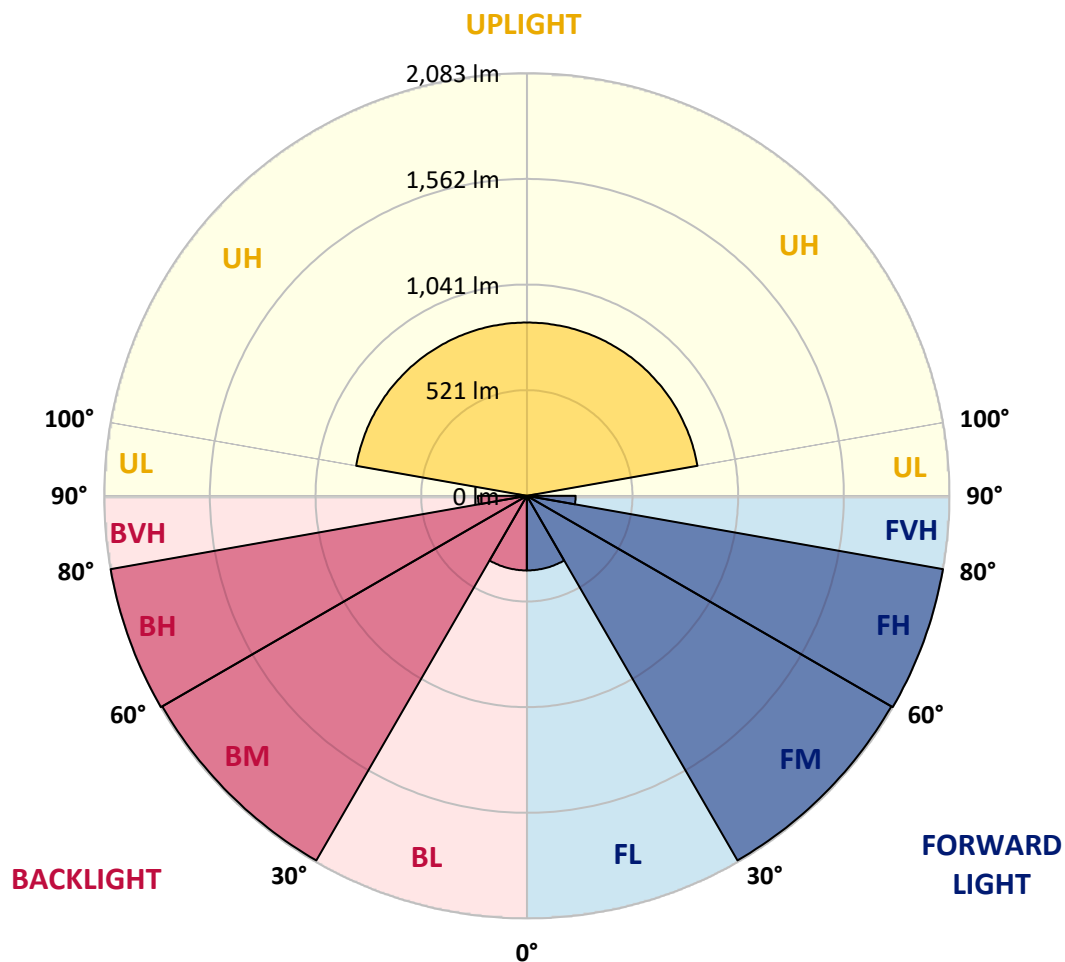
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	367.7	3.5			
FM	(30°-60°)	2074.7	19.9			
FH	(60°-80°)	2082.6	20.0			G2/5000
FVH	(80°-90°)	240.6	2.3			G3/500
BL	(0°-30°)	367.7	3.5	B1/500		
BM	(30°-60°)	2074.7	19.9	B2/2500		
BH	(60°-80°)	2082.6	20.0	B3/2500		G2/5000
BVH	(80°-90°)	240.6	2.3			G3/500
UL	(90°-100°)	46.1	0.4		U2/50	
UH	(100°-180°)	853.9	8.2		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°	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2
2.5°	651.7	651.7	651.7	650.2	650.2	650.2	650.2	651.7	651.7	651.7	651.7
5°	666.7	666.7	663.7	660.7	657.7	657.7	659.2	660.7	662.2	665.2	665.2
7.5°	675.7	675.7	674.2	671.2	666.7	666.7	668.2	671.2	672.7	672.7	671.2
10°	687.6	689.1	693.6	695.1	692.1	692.1	693.6	695.1	692.1	687.6	687.6
12.5°	716.1	717.6	723.6	728.1	728.1	725.1	726.6	729.6	722.1	714.6	716.1
15°	756.6	756.6	758.1	762.5	759.5	756.6	759.5	761.0	756.6	755.1	758.1
17.5°	810.5	810.5	801.5	809.0	810.5	809.0	812.0	804.5	800.0	806.0	809.0
20°	868.9	862.9	858.4	864.4	876.4	871.9	877.9	861.4	856.9	859.9	861.4
22.5°	906.4	910.9	913.9	916.9	933.3	927.3	933.3	915.4	912.4	906.4	901.9
25°	951.3	955.8	973.8	964.8	975.3	966.3	973.8	963.3	969.3	951.3	951.3
27.5°	1002.2	1011.2	1021.7	1017.2	1030.7	1026.2	1030.7	1015.7	1017.2	1009.7	1006.7
30°	1071.2	1071.2	1068.2	1077.2	1101.1	1098.1	1099.6	1080.1	1066.7	1068.2	1074.2
32.5°	1140.1	1131.1	1135.6	1162.5	1177.5	1171.5	1174.5	1165.5	1135.6	1129.6	1134.1
35°	1204.5	1218.0	1228.5	1250.9	1271.9	1268.9	1267.4	1252.4	1233.0	1209.0	1201.5
37.5°	1304.9	1319.8	1348.3	1388.8	1426.2	1433.7	1414.2	1394.8	1349.8	1315.4	1297.4
40°	1436.7	1438.2	1471.2	1549.1	1583.5	1589.5	1579.0	1546.1	1477.1	1438.2	1436.7
42.5°	1552.1	1541.6	1595.5	1661.4	1692.9	1695.9	1688.4	1661.4	1595.5	1540.1	1550.6
45°	1641.9	1641.9	1706.4	1758.8	1809.7	1821.7	1808.2	1751.3	1707.9	1643.4	1638.9
47.5°	1724.3	1746.8	1800.7	1865.2	1937.1	1953.6	1937.1	1869.7	1796.2	1748.3	1722.8
50°	1823.2	1850.2	1889.1	1989.5	2070.4	2092.9	2068.9	1995.5	1889.1	1848.7	1833.7
52.5°	1938.6	1961.0	2022.5	2148.3	2208.2	2241.2	2221.7	2151.3	2025.5	1964.0	1952.1
55°	2076.4	2055.4	2151.3	2272.7	2383.5	2427.0	2388.0	2275.6	2166.3	2055.4	2076.4
57.5°	2146.8	2122.8	2257.7	2373.0	2527.3	2584.3	2536.3	2382.0	2257.7	2130.3	2145.3
60°	2152.8	2163.3	2265.2	2453.9	2560.3	2584.3	2569.3	2467.4	2269.7	2172.3	2143.8
62.5°	2134.8	2199.2	2286.1	2480.9	2576.8	2635.2	2584.3	2483.9	2295.1	2209.7	2136.3
65°	2110.9	2175.3	2304.1	2441.9	2605.2	2663.7	2615.7	2449.4	2310.1	2175.3	2119.8
67.5°	2068.9	2046.4	2205.2	2389.5	2531.8	2566.3	2536.3	2392.5	2203.7	2043.4	2073.4
70°	1935.6	1916.1	2052.4	2254.7	2391.0	2438.9	2403.0	2257.7	2055.4	1920.6	1938.6
72.5°	1737.8	1743.8	1875.7	2068.9	2215.7	2245.7	2226.2	2067.4	1883.1	1751.3	1727.3
75°	1507.1	1522.1	1647.9	1823.2	1956.5	1974.5	1955.1	1830.7	1646.4	1531.1	1499.6
77.5°	1238.9	1261.4	1363.3	1538.6	1627.0	1667.4	1636.0	1543.1	1370.8	1267.4	1236.0
80°	960.3	967.8	1039.7	1180.5	1297.4	1324.3	1294.4	1185.0	1048.7	970.8	948.3
82.5°	629.2	641.2	705.6	813.5	889.9	882.4	889.9	804.5	713.1	638.2	600.7
85°	280.1	304.1	347.6	398.5	447.9	461.4	447.9	404.5	347.6	298.1	292.1
87.5°	19.5	22.5	27.0	28.5	31.5	24.0	24.0	24.0	21.0	24.0	19.5
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)