

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: P821465

Luminaire Tested: **TT-D5-830-12VDC-RW-UPL**

Issue Date: 10/29/2020

Test Information

Test Method: LM-79-08
Report Number: P821465
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G2-2002-677-2) AND
Test Lab: INNOVATION CENTER
Issue Date: 10/29/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-D5-830-12VDC-RW-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
3000K, 80 CRI LEDS AND RECTANGULAR DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

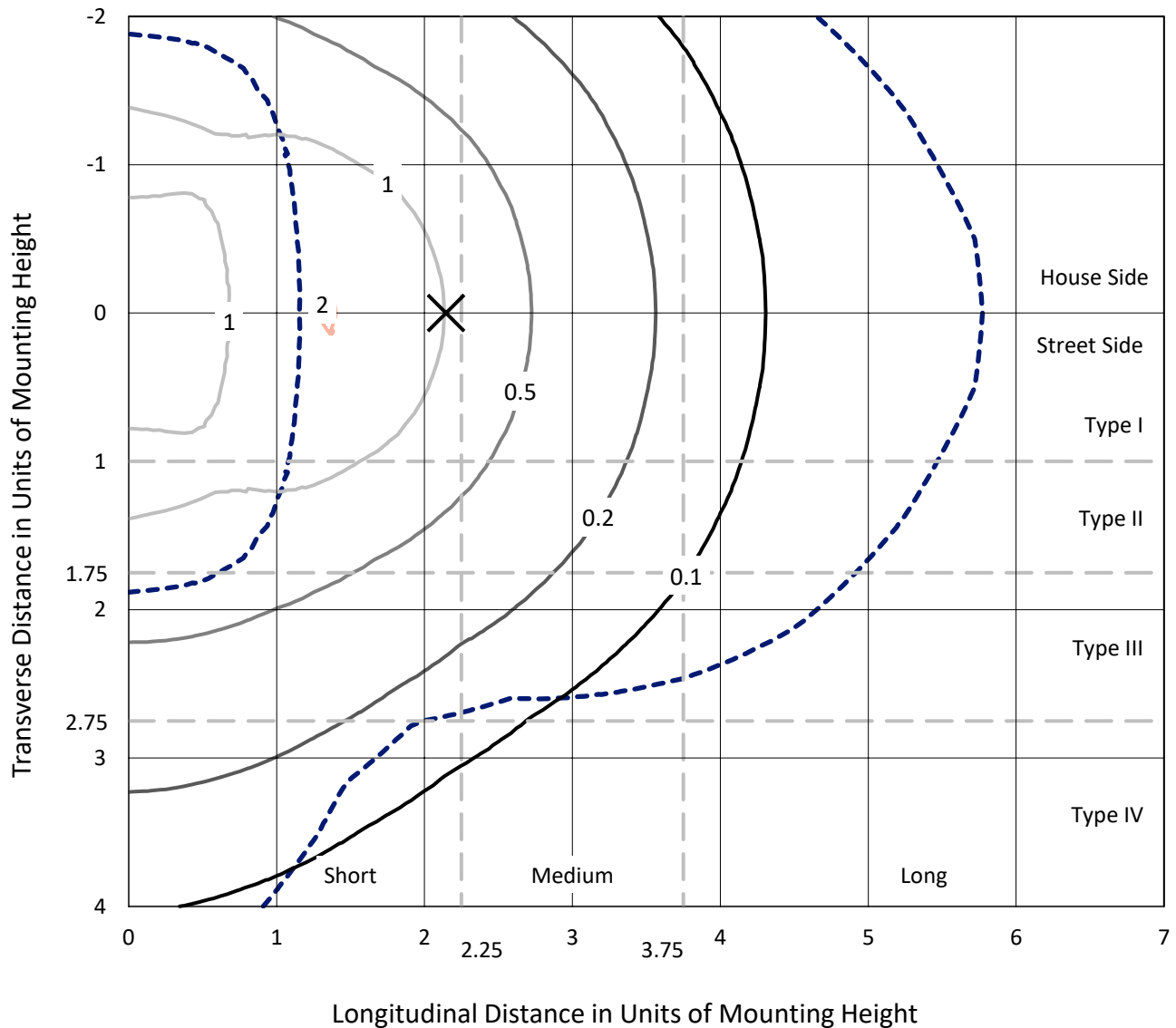
Lumens per Lamp: N/A
Luminaire Lumens: 7616.7 lumens
Efficiency: N/A
Efficacy: 104.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type IV - Short
BUG Rating: B3 - U4 - G3

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

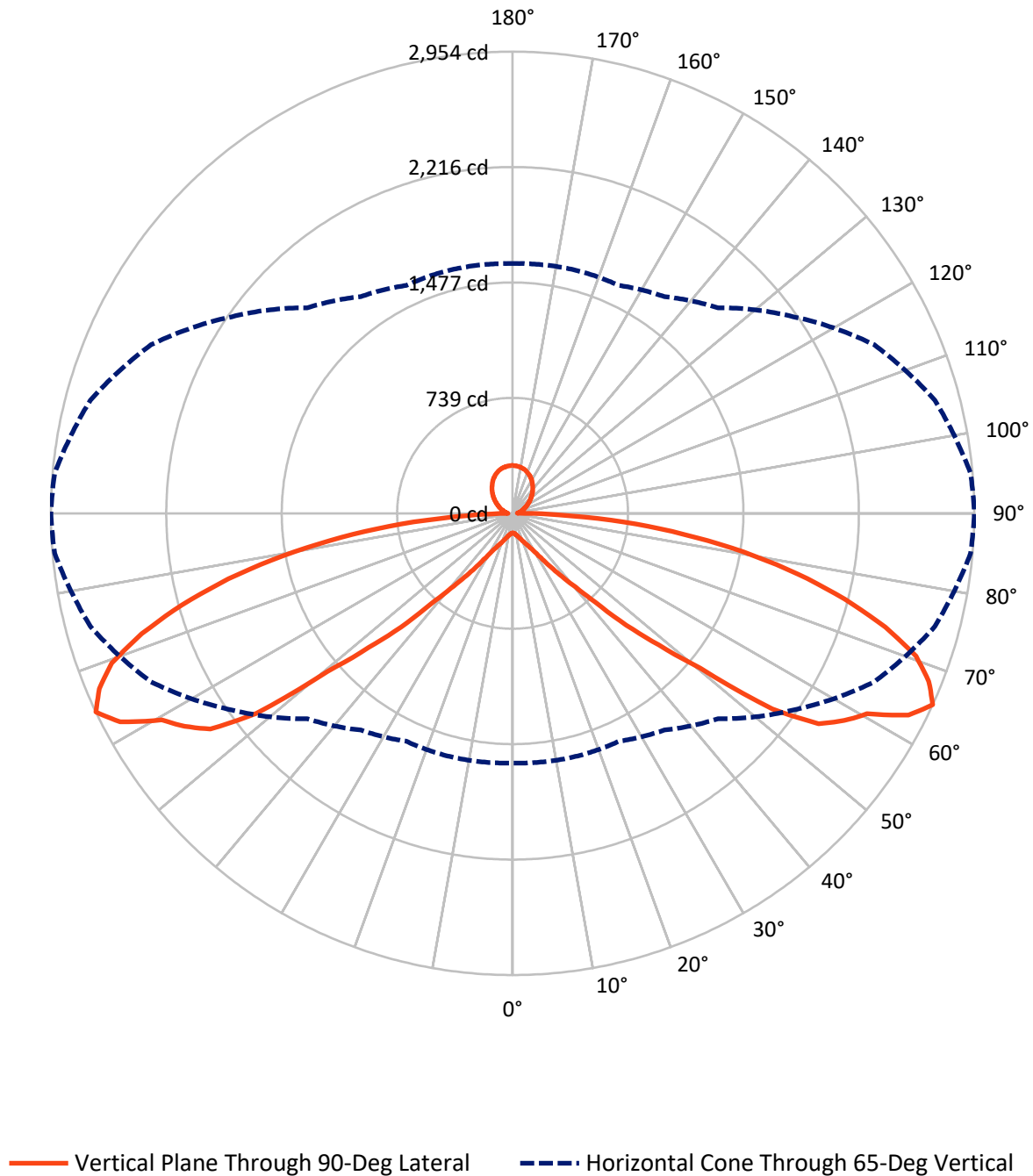
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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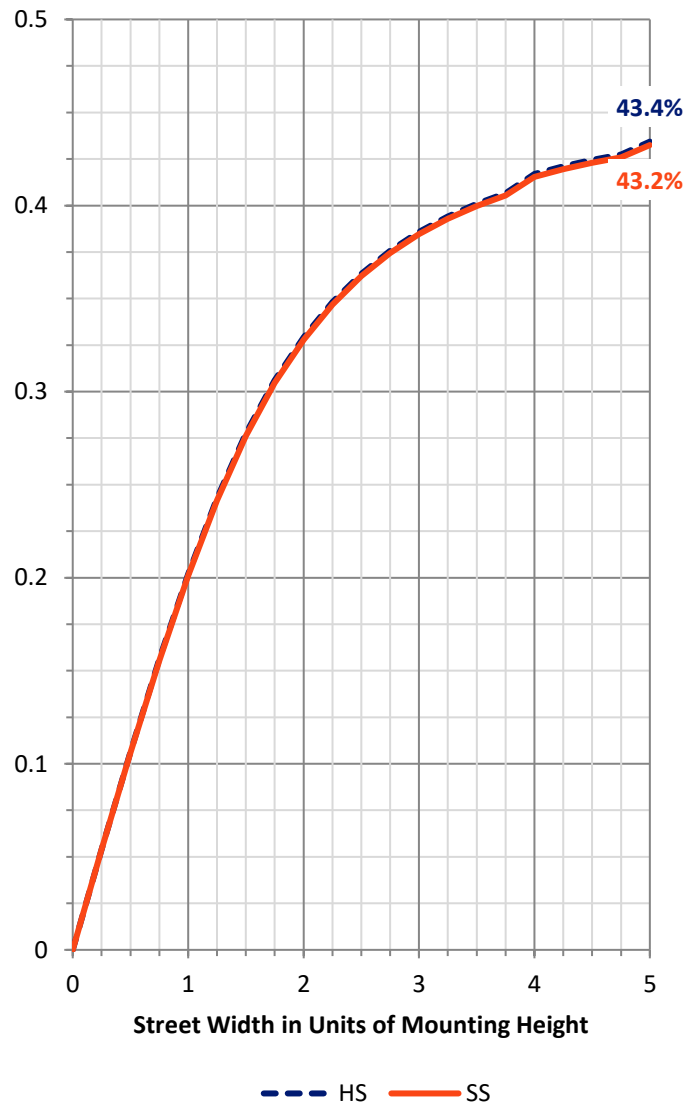
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3392.5	415.9	3808.4
	% Fixture	44.5	5.5	50.0
Street Side	Lumens	3392.5	415.9	3808.4
	% Fixture	44.5	5.5	50.0
Total	Lumens	6785.0	831.7	7616.7
	% Fixture	89.1	10.9	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	12.9	0.2
10°-20°	48.4	0.6
20°-30°	111.7	1.5
30°-40°	252.6	3.3
40°-50°	615.4	8.1
50°-60°	1383.9	18.2
60°-70°	2022.6	26.6
70°-80°	1762.4	23.1
80°-90°	574.9	7.5
90°-100°	42.6	0.6
100°-110°	66.0	0.9
110°-120°	91.9	1.2
120°-130°	119.0	1.6
130°-140°	138.7	1.8
140°-150°	140.5	1.8
150°-160°	121.9	1.6
160°-170°	82.2	1.1
170°-180°	28.9	0.4
0°-90°	6785.0	89.1
0°-180°	7616.7	100.0

Coefficient of Utilization



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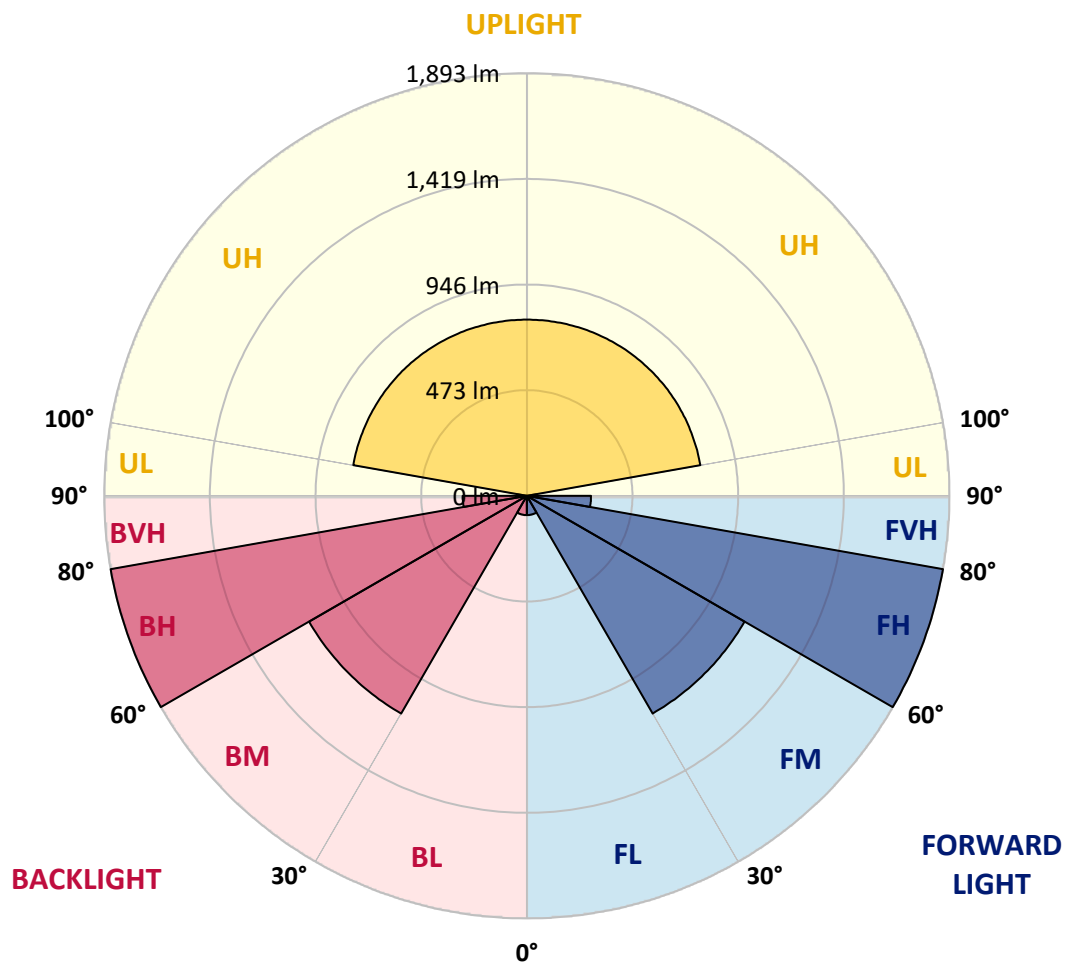
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	86.5	1.1			
FM	(30°-60°)	1126.0	14.8			
FH	(60°-80°)	1892.5	24.8			G2/5000
FVH	(80°-90°)	287.4	3.8			G3/500
BL	(0°-30°)	86.5	1.1	B0/110		
BM	(30°-60°)	1126.0	14.8	B2/2500		
BH	(60°-80°)	1892.5	24.8	B3/2500		G3/2500
BVH	(80°-90°)	287.4	3.8			G3/500
UL	(90°-100°)	42.6	0.6		U2/50	
UH	(100°-180°)	789.1	10.4		U4/1000	

BUG Rating: B3-U4-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	123.9	123.9	123.9	123.9	123.9	123.9	123.9	123.9	123.9	123.9	123.9
2.5°	125.5	125.5	127.1	127.1	127.1	127.1	127.1	127.1	127.1	127.1	127.1
5°	130.3	130.3	130.3	130.3	131.9	131.9	130.3	130.3	130.3	130.3	130.3
7.5°	138.4	136.8	138.4	138.4	138.4	136.8	136.8	136.8	135.2	135.2	135.2
10°	146.4	146.4	148.0	146.4	146.4	144.8	144.8	144.8	143.2	143.2	143.2
12.5°	157.7	157.7	157.7	157.7	156.1	156.1	154.5	152.9	151.2	151.2	151.2
15°	172.2	170.5	170.5	168.9	167.3	165.7	164.1	164.1	162.5	162.5	162.5
17.5°	186.6	186.6	185.0	183.4	180.2	178.6	178.6	177.0	175.4	175.4	175.4
20°	204.3	204.3	202.7	199.5	196.3	194.7	193.1	193.1	191.5	191.5	191.5
22.5°	225.3	223.6	220.4	217.2	214.0	212.4	210.8	209.2	209.2	209.2	209.2
25°	247.8	246.2	244.6	239.7	234.9	233.3	230.1	230.1	228.5	230.1	230.1
27.5°	275.1	273.5	270.3	265.5	259.0	255.8	254.2	254.2	255.8	255.8	257.4
30°	308.9	305.7	302.5	296.0	289.6	284.8	284.8	286.4	291.2	294.4	294.4
32.5°	349.1	347.5	342.7	336.3	325.0	321.8	325.0	334.7	341.1	345.9	349.1
35°	395.8	394.2	387.8	376.5	368.5	366.8	376.5	392.6	413.5	419.9	423.2
37.5°	447.3	448.9	440.9	428.0	419.9	423.2	442.5	473.0	494.0	508.4	511.6
40°	511.6	514.9	505.2	490.7	482.7	495.6	526.1	561.5	598.5	616.2	621.1
42.5°	587.3	592.1	579.2	564.7	559.9	580.8	624.3	682.2	748.2	769.1	777.1
45°	680.6	683.8	667.7	654.8	651.6	688.6	762.6	859.2	963.8	1012.0	1020.1
47.5°	791.6	790.0	775.5	759.4	762.6	815.7	926.8	1057.1	1168.1	1242.1	1258.2
50°	918.7	910.7	899.4	880.1	901.0	978.2	1118.2	1275.9	1462.5	1528.5	1557.5
52.5°	1045.8	1031.3	1021.7	1008.8	1045.8	1145.6	1341.9	1617.0	1898.6	2049.8	2080.4
55°	1160.1	1148.8	1144.0	1145.6	1203.5	1346.7	1604.1	1956.5	2228.4	2353.9	2376.4
57.5°	1272.7	1266.3	1261.4	1271.1	1362.8	1549.4	1839.0	2168.9	2392.5	2485.8	2501.9
60°	1378.9	1385.3	1382.1	1411.1	1522.1	1710.3	1961.3	2286.3	2501.9	2587.2	2604.9
62.5°	1496.3	1501.2	1501.2	1533.3	1623.4	1789.2	2045.0	2424.7	2698.2	2823.7	2843.0
65°	1597.7	1600.9	1607.4	1609.0	1692.6	1858.3	2193.0	2551.8	2796.4	2941.2	2954.0
67.5°	1673.3	1676.5	1668.5	1660.4	1724.8	1874.4	2181.7	2535.7	2752.9	2862.3	2872.0
70°	1734.5	1720.0	1697.5	1657.2	1678.1	1790.8	2088.4	2407.0	2625.8	2724.0	2738.4
72.5°	1742.5	1729.6	1658.8	1568.7	1543.0	1641.1	1924.3	2210.7	2399.0	2492.3	2493.9
75°	1694.2	1660.4	1543.0	1407.8	1359.6	1452.9	1695.8	1956.5	2107.7	2186.6	2194.6
77.5°	1531.7	1499.5	1351.5	1197.1	1142.4	1222.8	1428.8	1639.5	1784.3	1861.6	1866.4
80°	1243.7	1232.5	1097.3	955.7	889.8	936.4	1116.6	1282.3	1399.8	1491.5	1499.5
82.5°	917.1	907.5	804.5	680.6	627.5	666.1	794.8	917.1	1026.5	1100.5	1105.4
85°	572.8	553.5	489.1	402.2	366.8	392.6	477.9	559.9	658.1	716.0	719.2
87.5°	191.5	183.4	157.7	130.3	109.4	114.2	140.0	170.5	249.4	275.1	291.2
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)