

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: P198455

Luminaire Tested: **TT-C4-LED-E1-RW-MS/DIM-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198455
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P27139) AND DOWNLIGHT
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: TT-C4-LED-E1-RW-MS/DIM-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
RECTANGULAR DISTRIBUTION WITH DIMMING OCCUPANCY SENSOR
Light Source: (160) 4000K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6456.9 lumens
Efficiency: N/A
Efficacy: 85.6 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U4 - G3

Input Watts (W): 75.4
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

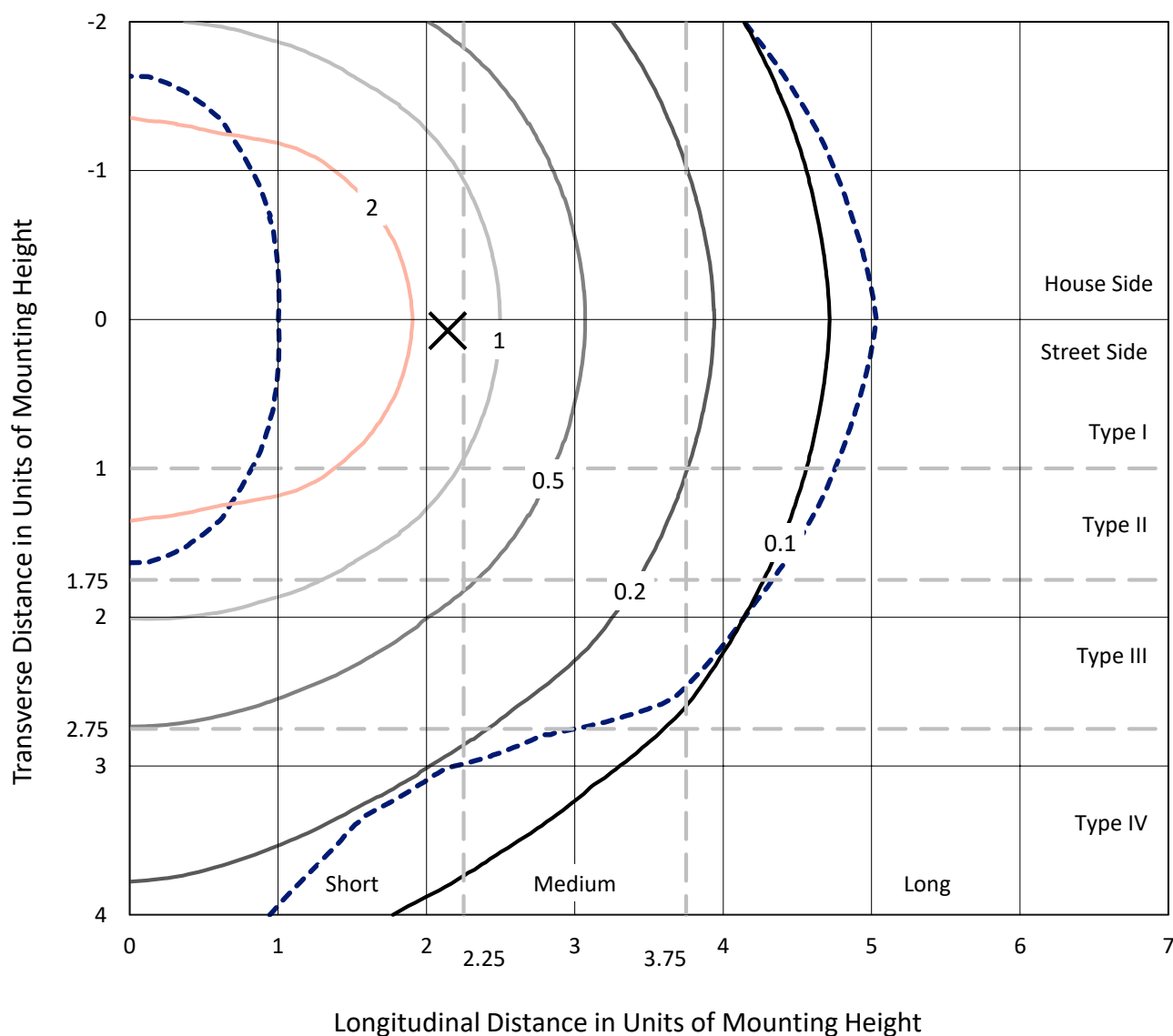


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

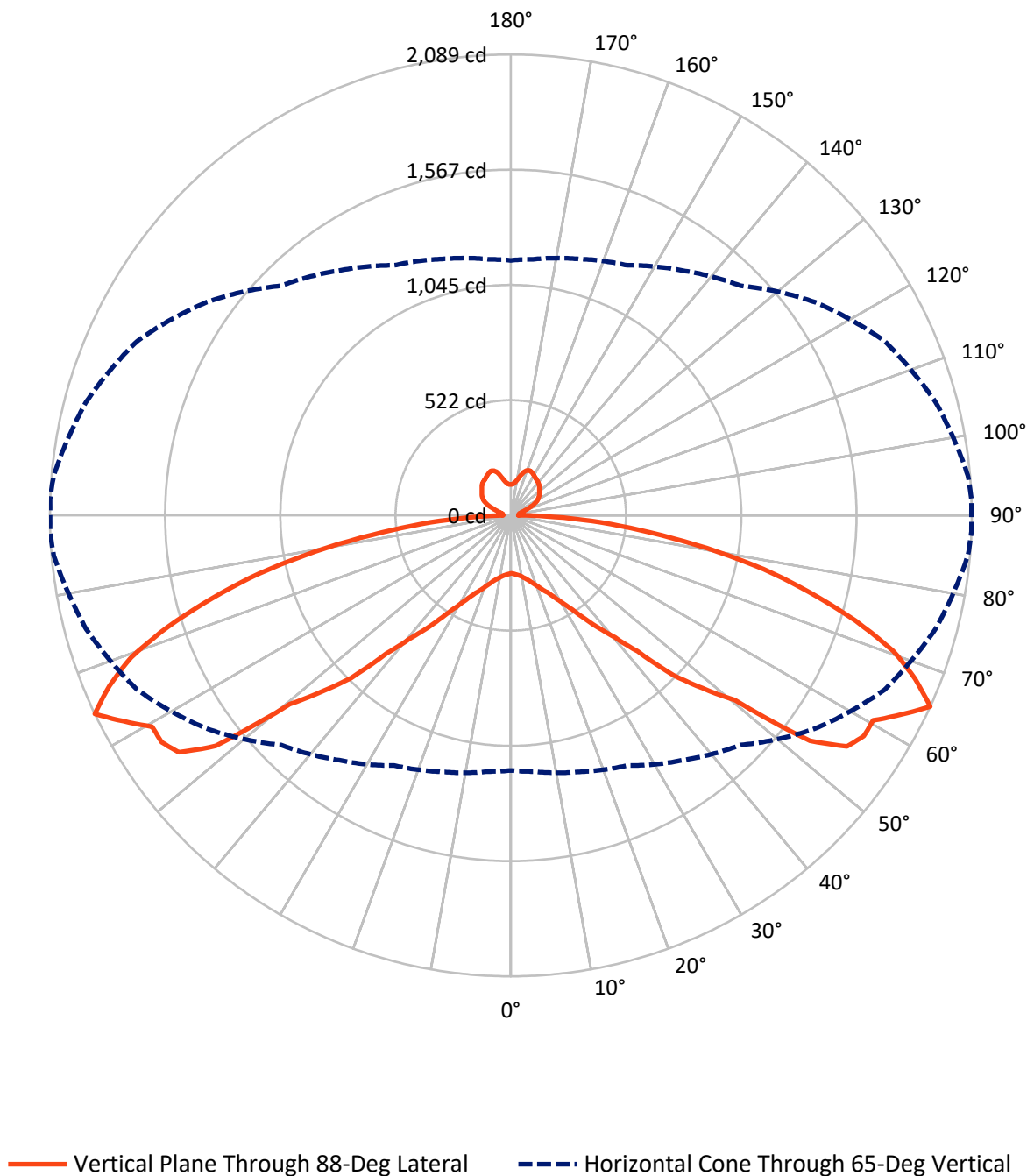


Based on 10 foot mounting height. Maximum calculated value = 3.7 fc
Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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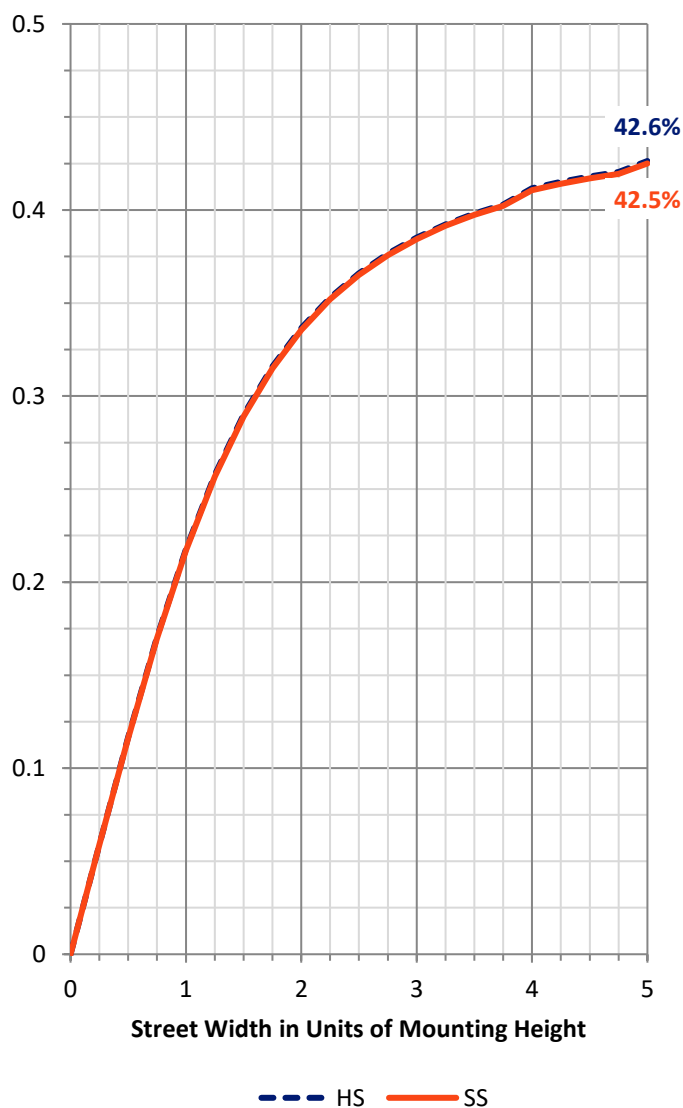
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2815.8	412.7	3228.5
	% Fixture	43.6	6.4	50.0
Street Side	Lumens	2815.8	412.7	3228.5
	% Fixture	43.6	6.4	50.0
Total	Lumens	5631.6	825.3	6456.9
	% Fixture	87.2	12.8	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.2	0.4
10°-20°	89.7	1.4
20°-30°	190.5	3.0
30°-40°	363.9	5.6
40°-50°	669.0	10.4
50°-60°	1158.7	17.9
60°-70°	1507.5	23.3
70°-80°	1235.4	19.1
80°-90°	390.6	6.0
90°-100°	38.4	0.6
100°-110°	59.5	0.9
110°-120°	119.6	1.9
120°-130°	148.9	2.3
130°-140°	153.3	2.4
140°-150°	136.3	2.1
150°-160°	103.9	1.6
160°-170°	51.8	0.8
170°-180°	13.6	0.2
0°-90°	5631.6	87.2
0°-180°	6456.9	100.0

Coefficient of Utilization



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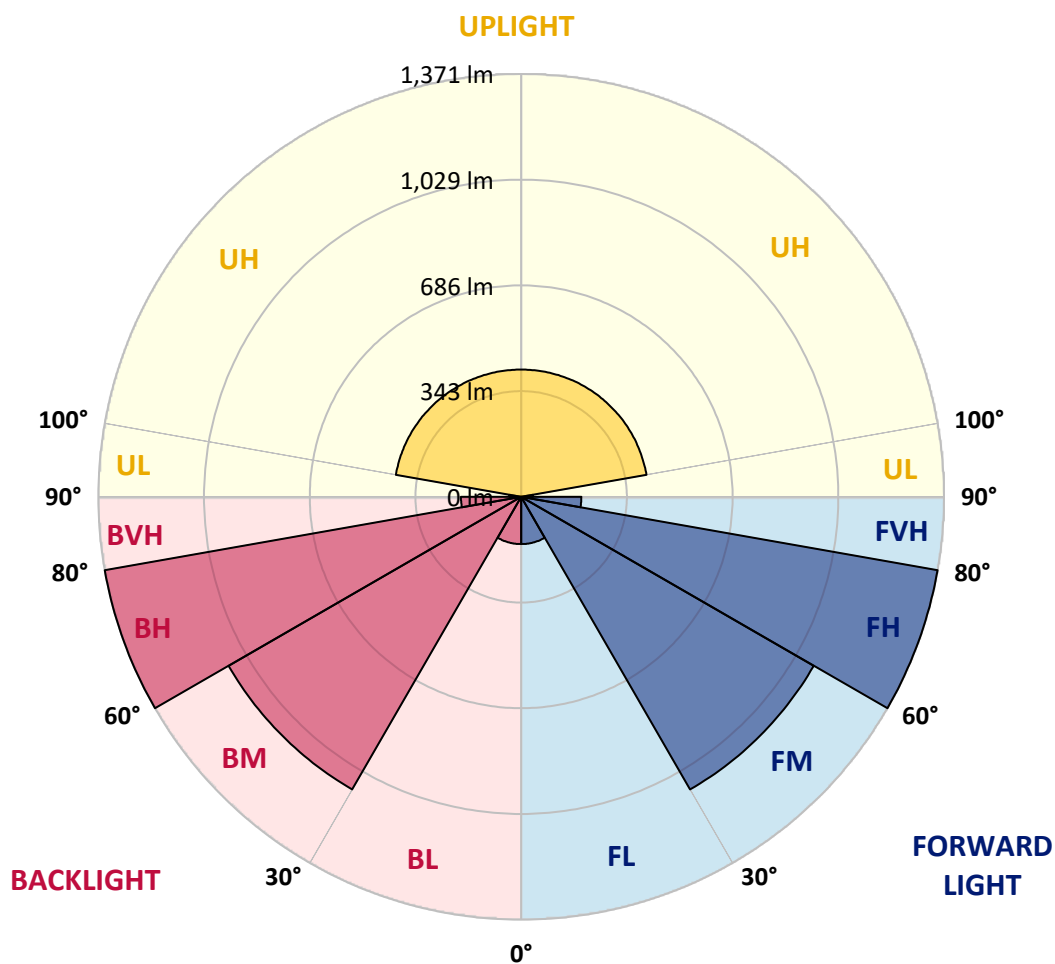
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	153.2	2.4			
FM	(30°-60°)	1095.9	17.0			
FH	(60°-80°)	1371.4	21.2			G1/1800
FVH	(80°-90°)	195.3	3.0			G2/225
BL	(0°-30°)	153.2	2.4	B1/500		
BM	(30°-60°)	1095.9	17.0	B2/2500		
BH	(60°-80°)	1371.4	21.2	B3/2500		G3/2500
BVH	(80°-90°)	195.3	3.0			G2/225
UL	(90°-100°)	38.4	0.6		U2/50	
UH	(100°-180°)	412.7	6.4		U3/500	

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°	88°
0°	262.9	262.9	262.9	262.9	262.9	262.9	262.9	262.9	262.9	262.9	262.9
2.5°	265.3	265.3	265.3	265.3	265.3	265.3	265.3	265.3	265.3	265.3	265.3
5°	270.0	270.0	270.0	271.2	271.2	271.2	271.2	271.2	270.0	270.0	270.0
7.5°	276.0	276.0	277.2	277.2	277.2	277.2	276.0	276.0	274.8	274.8	274.8
10°	285.4	285.4	286.6	286.6	285.4	284.3	284.3	284.3	283.1	283.1	283.1
12.5°	298.5	298.5	299.7	298.5	297.3	296.1	296.1	294.9	293.7	293.7	293.7
15°	316.2	316.2	315.1	312.7	310.3	310.3	306.8	306.8	306.8	306.8	305.6
17.5°	339.9	338.7	334.0	332.8	329.3	326.9	324.5	323.3	322.2	322.2	323.3
20°	366.0	363.6	357.7	357.7	351.8	348.2	345.8	343.5	343.5	342.3	341.1
22.5°	396.8	394.4	387.3	384.9	379.0	373.1	370.7	364.8	363.6	363.6	364.8
25°	427.6	428.8	422.8	418.1	409.8	403.9	395.6	392.0	388.5	388.5	386.1
27.5°	463.1	464.3	457.2	451.3	444.2	432.3	427.6	422.8	419.3	421.7	419.3
30°	501.0	503.4	497.5	490.3	479.7	467.8	461.9	460.7	457.2	459.6	458.4
32.5°	544.8	543.6	540.1	533.0	518.8	509.3	504.6	503.4	505.7	506.9	505.7
35°	595.8	591.0	587.5	576.8	563.8	556.7	551.9	556.7	567.3	574.4	572.1
37.5°	649.1	642.0	638.4	626.6	614.7	611.2	617.1	626.6	637.2	646.7	646.7
40°	692.9	695.2	687.0	676.3	666.8	670.4	681.0	697.6	718.9	728.4	727.2
42.5°	736.7	743.8	735.5	724.9	726.0	736.7	752.1	782.9	830.3	844.5	843.3
45°	775.8	791.2	784.1	777.0	787.6	805.4	846.9	915.6	980.7	1029.3	1032.8
47.5°	826.7	835.0	831.5	831.5	848.0	889.5	952.3	1048.2	1116.9	1163.1	1170.2
50°	884.8	876.5	877.6	888.3	929.8	991.4	1076.6	1166.6	1289.8	1311.1	1317.1
52.5°	933.3	919.1	927.4	947.5	1007.9	1086.1	1192.7	1377.5	1535.0	1677.1	1697.3
55°	983.1	966.5	983.1	1015.0	1103.9	1212.8	1369.2	1583.6	1749.4	1838.2	1848.9
57.5°	1021.0	1018.6	1042.3	1088.5	1197.4	1343.1	1519.6	1703.2	1814.5	1877.3	1886.8
60°	1068.3	1070.7	1097.9	1159.5	1289.8	1429.6	1561.1	1729.2	1839.4	1876.1	1886.8
62.5°	1113.3	1122.8	1154.8	1224.7	1338.4	1445.0	1571.7	1775.4	1915.2	1994.5	1987.4
65°	1156.0	1165.5	1203.4	1250.7	1355.0	1472.2	1684.2	1869.0	1992.2	2079.8	2089.3
67.5°	1198.6	1210.5	1225.9	1263.8	1364.4	1474.6	1658.2	1813.3	1912.8	1973.2	1976.8
70°	1235.3	1234.2	1230.6	1241.3	1304.0	1389.3	1559.9	1683.0	1776.6	1826.4	1838.2
72.5°	1240.1	1236.5	1195.1	1164.3	1184.4	1251.9	1415.4	1513.7	1584.7	1626.2	1634.5
75°	1201.0	1180.9	1099.1	1032.8	1029.3	1096.8	1234.2	1305.2	1347.9	1401.2	1404.7
77.5°	1074.3	1051.8	960.6	870.5	870.5	914.4	1029.3	1067.2	1120.5	1160.7	1171.4
80°	865.8	863.4	768.7	697.6	671.6	708.3	801.8	816.1	856.3	890.7	901.3
82.5°	626.6	608.8	556.7	496.3	474.9	498.6	562.6	576.8	592.2	623.0	636.0
85°	379.0	380.2	344.7	310.3	283.1	291.4	341.1	361.2	381.4	401.5	408.6
87.5°	136.2	157.5	123.2	109.0	94.8	90.0	105.4	130.3	152.8	181.2	196.6
90°	36.0	36.0	36.0	34.0	29.0	26.0	28.0	32.0	34.0	34.0	34.0
92.5°	40.0	39.0	38.0	34.0	29.0	27.0	28.0	32.0	35.0	36.0	36.0
95°	44.0	43.0	41.0	36.0	32.0	30.0	30.0	34.0	37.0	39.0	38.4
97.5°	42.0	42.0	40.0	37.0	35.0	33.0	33.0	34.0	36.0	36.0	36.0
100°	45.0	45.0	44.0	40.0	38.0	36.0	36.0	38.0	38.0	37.0	37.0
102.5°	51.0	51.0	49.0	46.0	44.0	42.0	43.0	44.0	42.0	41.0	41.0
105°	60.0	60.0	57.0	54.0	53.0	52.0	54.0	53.0	49.0	48.0	48.6
107.5°	72.0	72.0	70.0	67.0	66.0	68.0	68.0	66.0	60.0	59.0	59.6
110°	86.0	86.0	89.0	85.0	86.0	87.0	84.0	84.0	78.0	74.0	74.6

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	88°
112.5°	101.0	102.0	108.0	107.0	110.0	107.0	102.0	105.0	100.0	95.0	94.4
115°	121.0	122.0	128.0	128.0	129.0	124.0	121.0	125.0	123.0	116.0	114.2
117.5°	140.0	141.0	144.0	141.0	141.0	136.0	138.0	141.0	139.0	133.0	130.6
120°	152.0	153.0	155.0	149.0	149.0	147.0	150.0	153.0	148.0	145.0	143.2
122.5°	161.0	162.0	164.0	154.0	155.0	158.0	159.0	162.0	155.0	153.0	151.2
125°	169.0	169.0	172.0	163.0	165.0	168.0	167.0	168.0	163.0	160.0	158.8
127.5°	177.0	177.0	181.0	171.0	176.0	178.0	176.0	175.0	173.0	166.0	164.2
130°	187.0	188.0	191.0	179.0	186.0	186.0	183.0	183.0	184.0	171.0	169.8
132.5°	198.0	199.0	201.0	186.0	193.0	195.0	190.0	192.0	192.0	179.0	177.2
135°	210.0	210.0	209.0	192.0	199.0	201.0	196.0	201.0	199.0	185.0	184.4
137.5°	221.0	219.0	213.0	197.0	205.0	208.0	203.0	210.0	204.0	191.0	190.4
140°	229.0	226.0	216.0	200.0	207.0	213.0	212.0	217.0	209.0	195.0	195.0
142.5°	235.0	231.0	218.0	201.0	208.0	218.0	220.0	223.0	211.0	198.0	198.0
145°	235.0	230.0	218.0	202.0	211.0	223.0	230.0	227.0	211.0	201.0	201.6
147.5°	230.0	227.0	219.0	207.0	216.0	229.0	239.0	229.0	212.0	204.0	205.2
150°	224.0	221.0	220.0	214.0	222.0	235.0	242.0	232.0	214.0	210.0	210.6
152.5°	216.0	214.0	221.0	220.0	230.0	241.0	242.0	235.0	219.0	215.0	215.6
155°	208.0	207.0	219.0	224.0	237.0	243.0	238.0	234.0	224.0	220.0	219.4
157.5°	203.0	203.0	216.0	224.0	234.0	235.0	228.0	229.0	226.0	222.0	220.2
160°	199.0	198.0	210.0	213.0	219.0	219.0	215.0	219.0	221.0	218.0	216.2
162.5°	185.0	184.0	193.0	193.0	198.0	198.0	196.0	200.0	204.0	207.0	207.0
165°	169.0	167.0	173.0	173.0	176.0	177.0	176.0	181.0	185.0	190.0	191.2
167.5°	154.0	152.0	156.0	155.0	159.0	159.0	160.0	165.0	168.0	172.0	173.2
170°	142.0	141.0	145.0	144.0	147.0	147.0	148.0	152.0	155.0	159.0	159.6
172.5°	137.0	135.0	139.0	138.0	141.0	141.0	141.0	145.0	146.0	149.0	150.2
175°	136.0	134.0	137.0	137.0	139.0	139.0	138.0	141.0	141.0	143.0	143.6
177.5°	137.0	136.0	139.0	138.0	140.0	139.0	138.0	140.0	140.0	141.0	141.0
180°	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0

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CANDELA DISTRIBUTION (continued):

	90°
0°	262.9
2.5°	265.3
5°	268.9
7.5°	274.8
10°	283.1
12.5°	293.7
15°	305.6
17.5°	321.0
20°	341.1
22.5°	362.4
25°	387.3
27.5°	421.7
30°	457.2
32.5°	505.7
35°	578.0
37.5°	646.7
40°	730.8
42.5°	848.0
45°	1037.5
47.5°	1169.0
50°	1327.7
52.5°	1680.7
55°	1852.4
57.5°	1889.1
60°	1886.8
62.5°	2006.4
65°	2088.1
67.5°	1979.2
70°	1842.9
72.5°	1630.9
75°	1413.0
77.5°	1177.3
80°	906.1
82.5°	631.3
85°	425.2
87.5°	175.3
90°	34.0
92.5°	36.0
95°	38.0
97.5°	36.0
100°	37.0
102.5°	41.0
105°	49.0
107.5°	60.0
110°	75.0

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CANDELA DISTRIBUTION (continued):

	90°
112.5°	94.0
115°	113.0
117.5°	129.0
120°	142.0
122.5°	150.0
125°	158.0
127.5°	163.0
130°	169.0
132.5°	176.0
135°	184.0
137.5°	190.0
140°	195.0
142.5°	198.0
145°	202.0
147.5°	206.0
150°	211.0
152.5°	216.0
155°	219.0
157.5°	219.0
160°	215.0
162.5°	207.0
165°	192.0
167.5°	174.0
170°	160.0
172.5°	151.0
175°	144.0
177.5°	141.0
180°	140.0

(END OF REPORT)