

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: P198269

Luminaire Tested: **TT-C1-LED-E1-RW-MS/DIM-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198269
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P27139) AND SCALED
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: TT-C1-LED-E1-RW-MS/DIM-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
RECTANGULAR DISTRIBUTION WITH DIMMING OCCUPANCY SENSOR
Light Source: (168) 4000K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3807 lumens
Efficiency: N/A
Efficacy: 83.9 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U4 - G2

Input Watts (W): 45.4
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

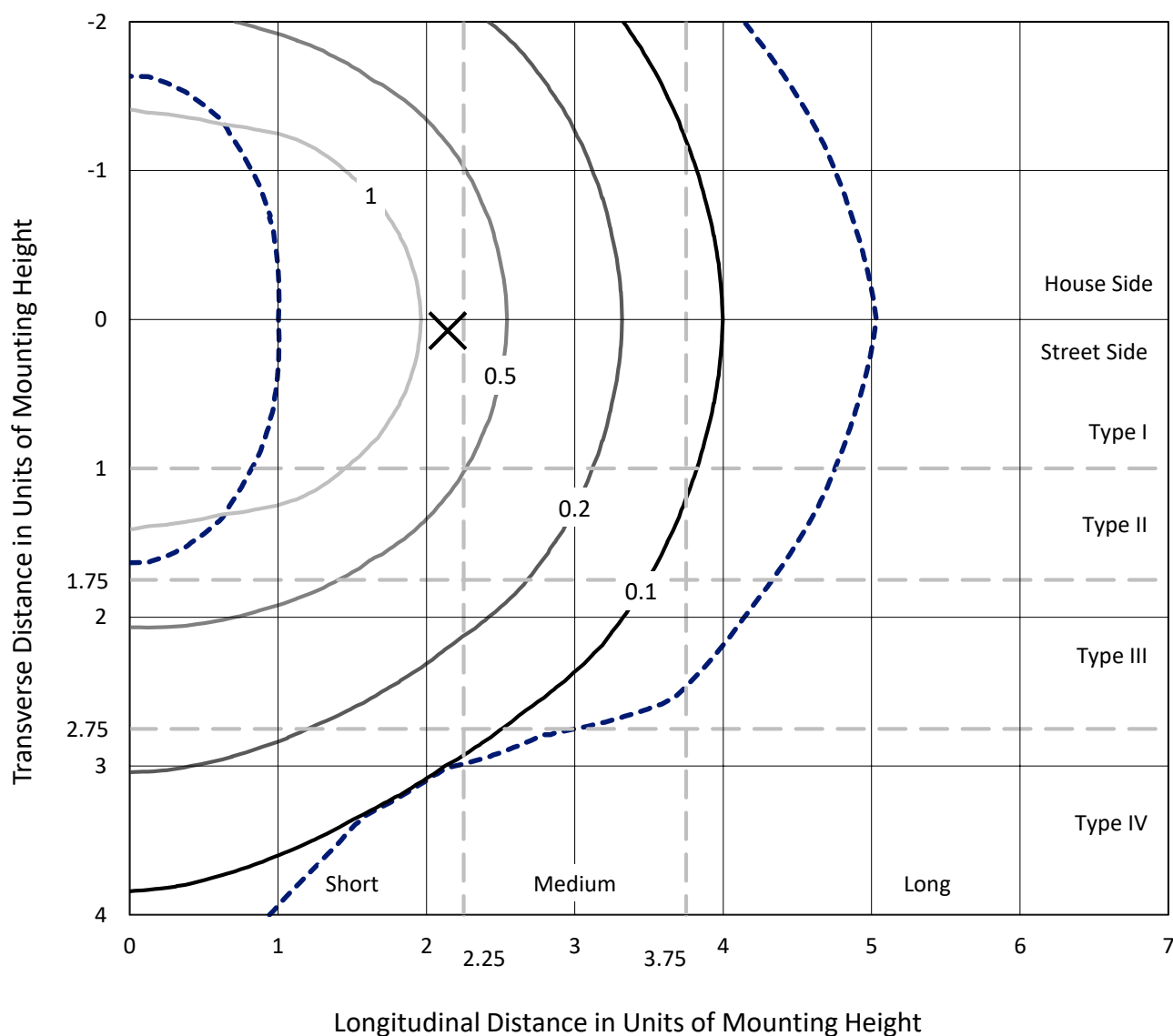


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

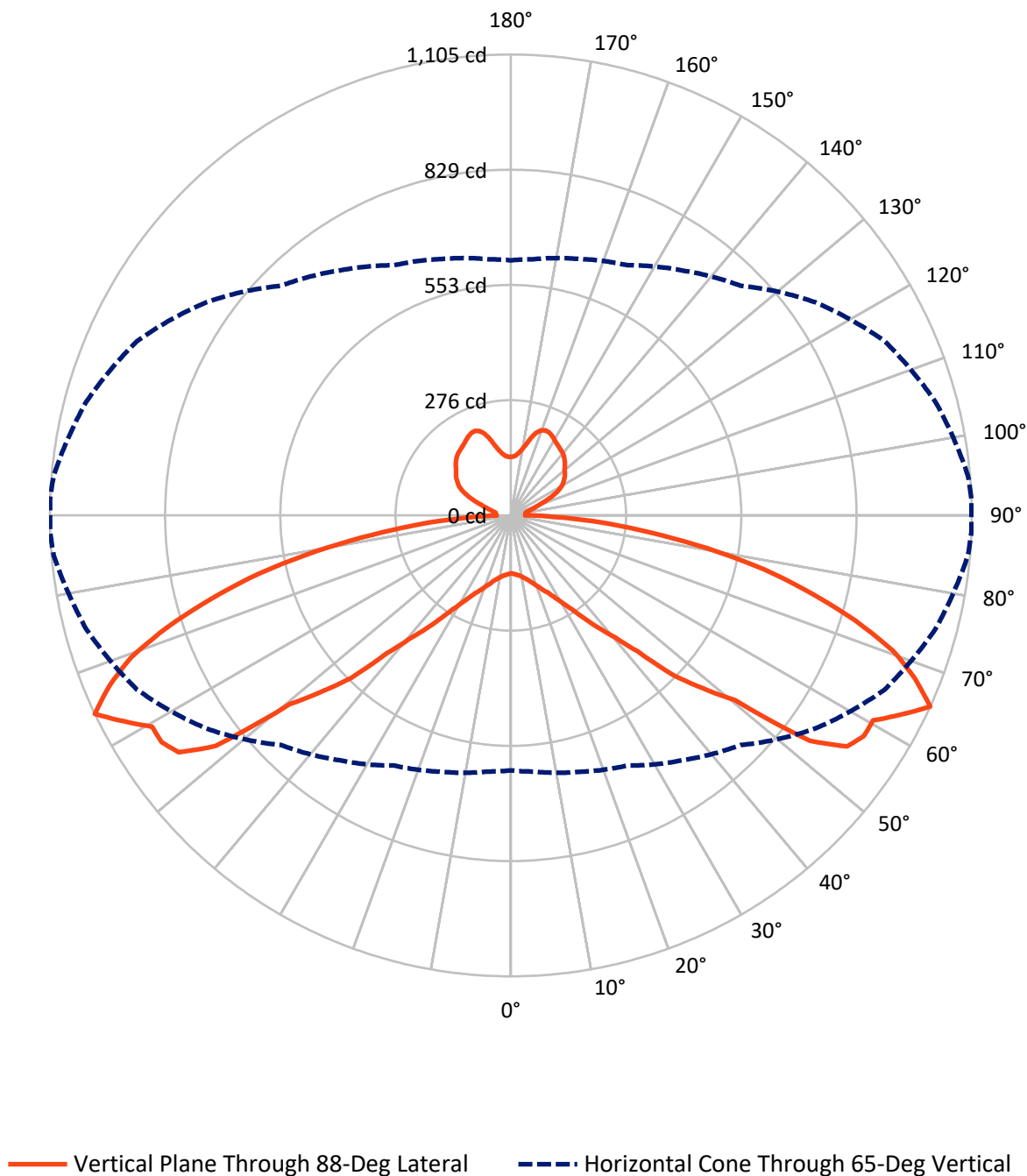


Based on 10 foot mounting height. Maximum calculated value = 2 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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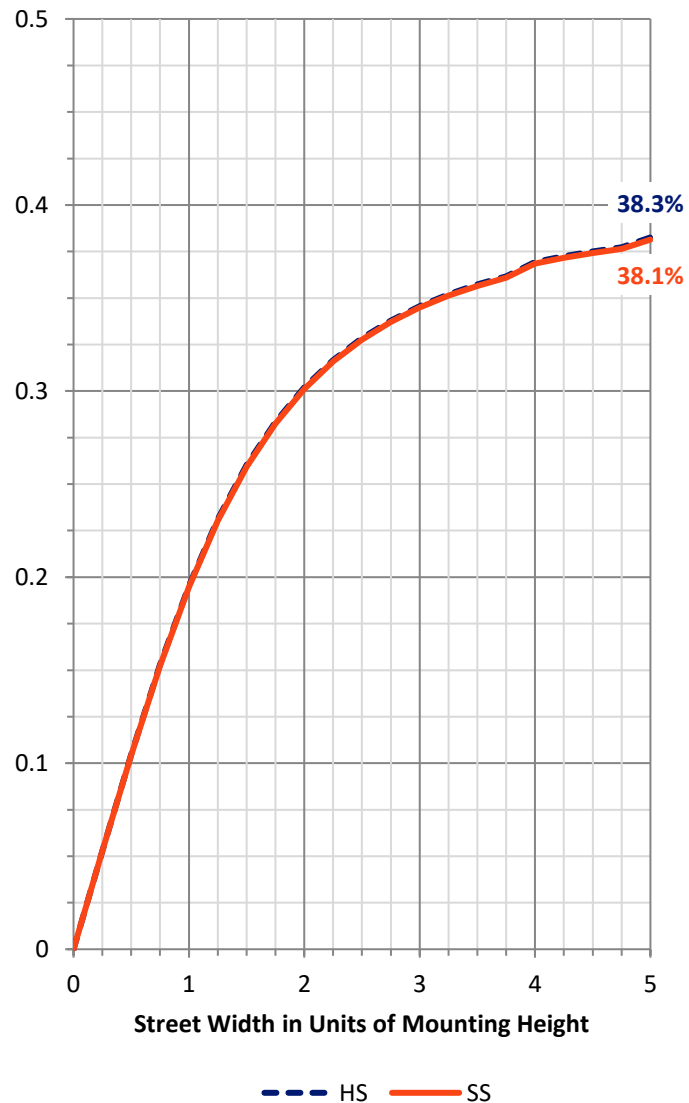
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1490.9	412.7	1903.5
	% Fixture	39.2	10.8	50.0
Street Side	Lumens	1490.9	412.7	1903.5
	% Fixture	39.2	10.8	50.0
Total	Lumens	2981.7	825.3	3807.0
	% Fixture	78.3	21.7	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.9	0.4
10°-20°	47.5	1.2
20°-30°	100.8	2.6
30°-40°	192.6	5.1
40°-50°	354.0	9.3
50°-60°	613.1	16.1
60°-70°	797.6	21.0
70°-80°	653.6	17.2
80°-90°	208.7	5.5
90°-100°	38.4	1.0
100°-110°	59.5	1.6
110°-120°	119.6	3.1
120°-130°	148.9	3.9
130°-140°	153.3	4.0
140°-150°	136.3	3.6
150°-160°	103.9	2.7
160°-170°	51.8	1.4
170°-180°	13.6	0.4
0°-90°	2981.7	78.3
0°-180°	3807.0	100.0

Coefficient of Utilization



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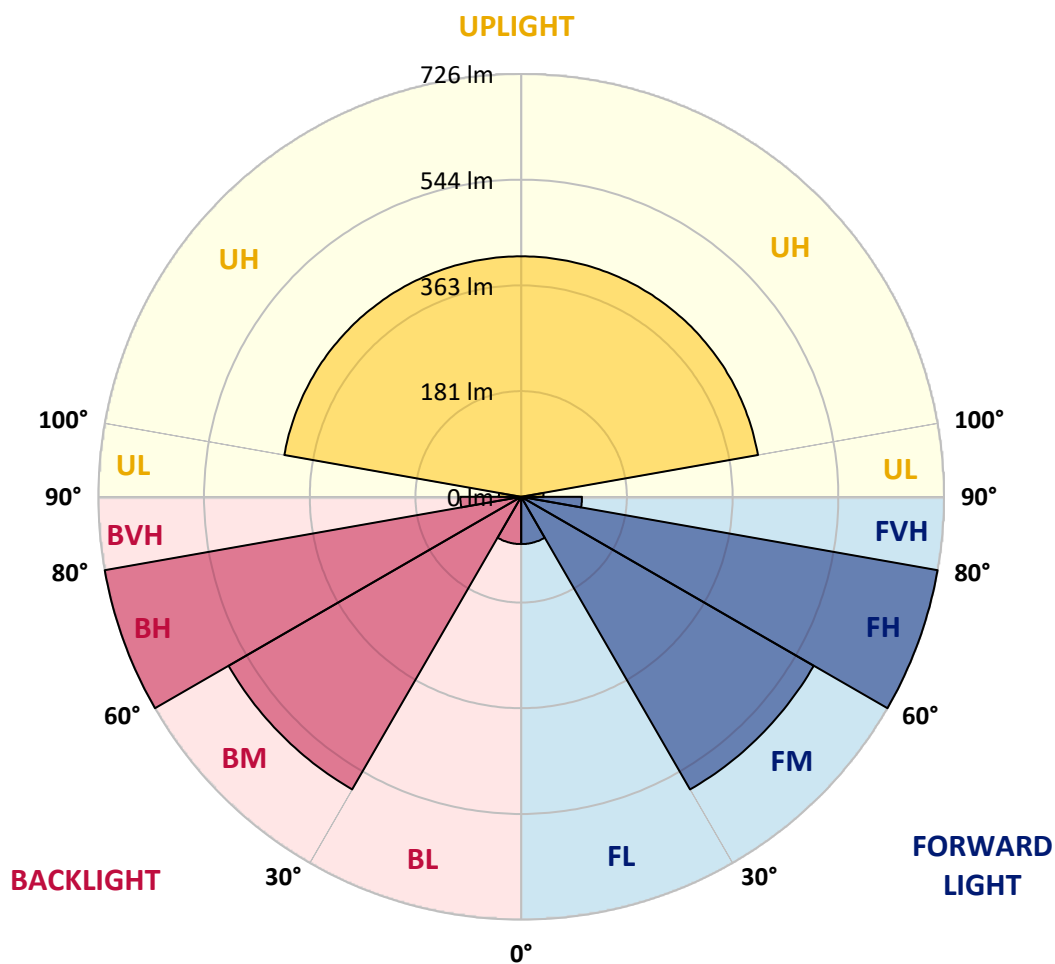
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	81.1	2.1			
FM	(30°-60°)	579.8	15.2			
FH	(60°-80°)	725.6	19.1			G1/1800
FVH	(80°-90°)	104.4	2.7			G2/225
BL	(0°-30°)	81.1	2.1	B0/110		
BM	(30°-60°)	579.8	15.2	B1/1000		
BH	(60°-80°)	725.6	19.1	B2/1000		G2/1000
BVH	(80°-90°)	104.4	2.7			G2/225
UL	(90°-100°)	38.4	1.0		U2/50	
UH	(100°-180°)	412.7	10.8		U3/500	

BUG Rating: B2-U4-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	88°
0°	139.1	139.1	139.1	139.1	139.1	139.1	139.1	139.1	139.1	139.1	139.1
2.5°	140.4	140.4	140.4	140.4	140.4	140.4	140.4	140.4	140.4	140.4	140.4
5°	142.9	142.9	142.9	143.5	143.5	143.5	143.5	143.5	142.9	142.9	142.9
7.5°	146.0	146.0	146.6	146.6	146.6	146.6	146.0	146.0	145.4	145.4	145.4
10°	151.0	151.0	151.7	151.7	151.0	150.4	150.4	150.4	149.8	149.8	149.8
12.5°	157.9	157.9	158.5	157.9	157.3	156.7	156.7	156.0	155.4	155.4	155.4
15°	167.3	167.3	166.7	165.4	164.2	164.2	162.3	162.3	162.3	162.3	161.7
17.5°	179.9	179.2	176.7	176.1	174.2	173.0	171.7	171.1	170.5	170.5	171.1
20°	193.6	192.4	189.3	189.3	186.1	184.2	183.0	181.7	181.7	181.1	180.5
22.5°	209.9	208.7	204.9	203.7	200.5	197.4	196.1	193.0	192.4	192.4	193.0
25°	226.2	226.9	223.7	221.2	216.8	213.7	209.3	207.4	205.5	205.5	204.3
27.5°	245.0	245.7	241.9	238.8	235.0	228.7	226.2	223.7	221.8	223.1	221.8
30°	265.1	266.3	263.2	259.4	253.8	247.5	244.4	243.8	241.9	243.1	242.5
32.5°	288.3	287.6	285.8	282.0	274.5	269.5	267.0	266.3	267.6	268.2	267.6
35°	315.2	312.7	310.8	305.2	298.3	294.5	292.0	294.5	300.2	303.9	302.7
37.5°	343.4	339.7	337.8	331.5	325.2	323.4	326.5	331.5	337.1	342.2	342.2
40°	366.6	367.9	363.5	357.8	352.8	354.7	360.3	369.1	380.4	385.4	384.8
42.5°	389.8	393.5	389.2	383.5	384.1	389.8	397.9	414.2	439.3	446.8	446.2
45°	410.5	418.6	414.9	411.1	416.7	426.1	448.1	484.4	518.9	544.6	546.5
47.5°	437.4	441.8	439.9	439.9	448.7	470.6	503.8	554.6	590.9	615.4	619.1
50°	468.1	463.7	464.4	470.0	491.9	524.5	569.6	617.3	682.4	693.7	696.8
52.5°	493.8	486.3	490.7	501.3	533.3	574.7	631.0	728.8	812.2	887.4	898.0
55°	520.1	511.4	520.1	537.1	584.1	641.7	724.4	837.8	925.6	972.6	978.2
57.5°	540.2	538.9	551.5	575.9	633.6	710.6	804.0	901.1	960.0	993.3	998.3
60°	565.3	566.5	580.9	613.5	682.4	756.4	825.9	914.9	973.2	992.6	998.3
62.5°	589.1	594.1	611.0	648.0	708.1	764.5	831.6	939.4	1013.3	1055.3	1051.5
65°	611.6	616.6	636.7	661.8	716.9	778.9	891.1	988.9	1054.0	1100.4	1105.4
67.5°	634.2	640.4	648.6	668.6	721.9	780.2	877.3	959.4	1012.1	1044.0	1045.9
70°	653.6	653.0	651.1	656.7	690.0	735.1	825.3	890.5	940.0	966.3	972.6
72.5°	656.1	654.2	632.3	616.0	626.7	662.4	748.9	800.9	838.5	860.4	864.8
75°	635.4	624.8	581.5	546.5	544.6	580.3	653.0	690.6	713.1	741.3	743.2
77.5°	568.4	556.5	508.2	460.6	460.6	483.8	544.6	564.6	592.8	614.1	619.8
80°	458.1	456.8	406.7	369.1	355.3	374.7	424.3	431.8	453.1	471.3	476.9
82.5°	331.5	322.1	294.5	262.6	251.3	263.8	297.7	305.2	313.3	329.6	336.5
85°	200.5	201.2	182.4	164.2	149.8	154.2	180.5	191.1	201.8	212.4	216.2
87.5°	72.1	83.3	65.2	57.7	50.1	47.6	55.8	68.9	80.8	95.9	104.0
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°	139.1
2.5°	140.4
5°	142.3
7.5°	145.4
10°	149.8
12.5°	155.4
15°	161.7
17.5°	169.8
20°	180.5
22.5°	191.8
25°	204.9
27.5°	223.1
30°	241.9
32.5°	267.6
35°	305.8
37.5°	342.2
40°	386.7
42.5°	448.7
45°	549.0
47.5°	618.5
50°	702.5
52.5°	889.2
55°	980.1
57.5°	999.5
60°	998.3
62.5°	1061.6
65°	1104.8
67.5°	1047.2
70°	975.1
72.5°	862.9
75°	747.6
77.5°	622.9
80°	479.4
82.5°	334.0
85°	225.0
87.5°	92.7
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)