

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: P198446

Luminaire Tested: **TT-C4-LED-E1-RW-CG-8030-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198446
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-CG-8030-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
RECTANGULAR DISTRIBUTION WITH CLEAR GLASS LENS
Light Source: (160) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5197.5 lumens
Efficiency: N/A
Efficacy: 68.9 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



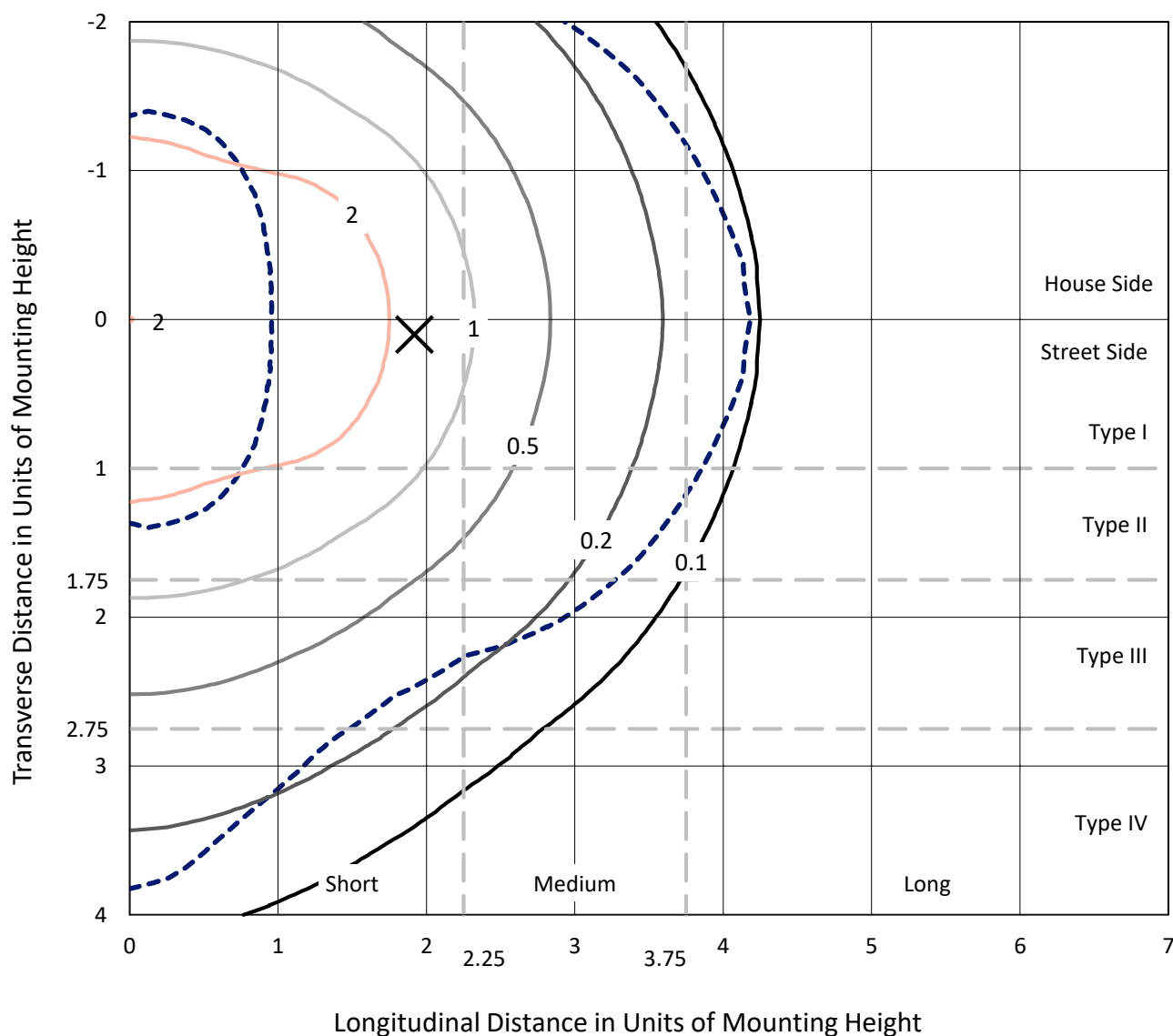
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

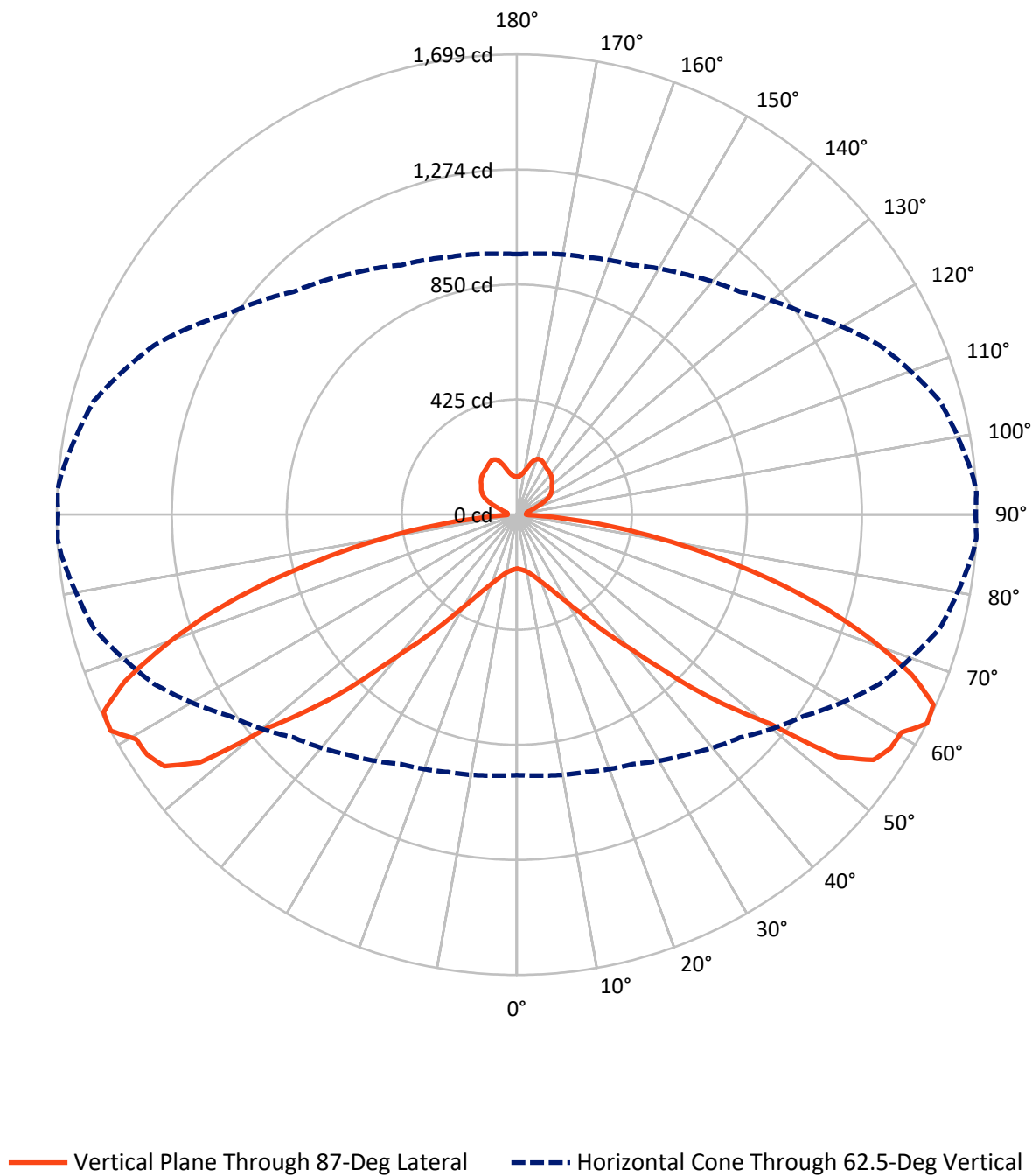


Based on 10 foot mounting height. Maximum calculated value = 3.3 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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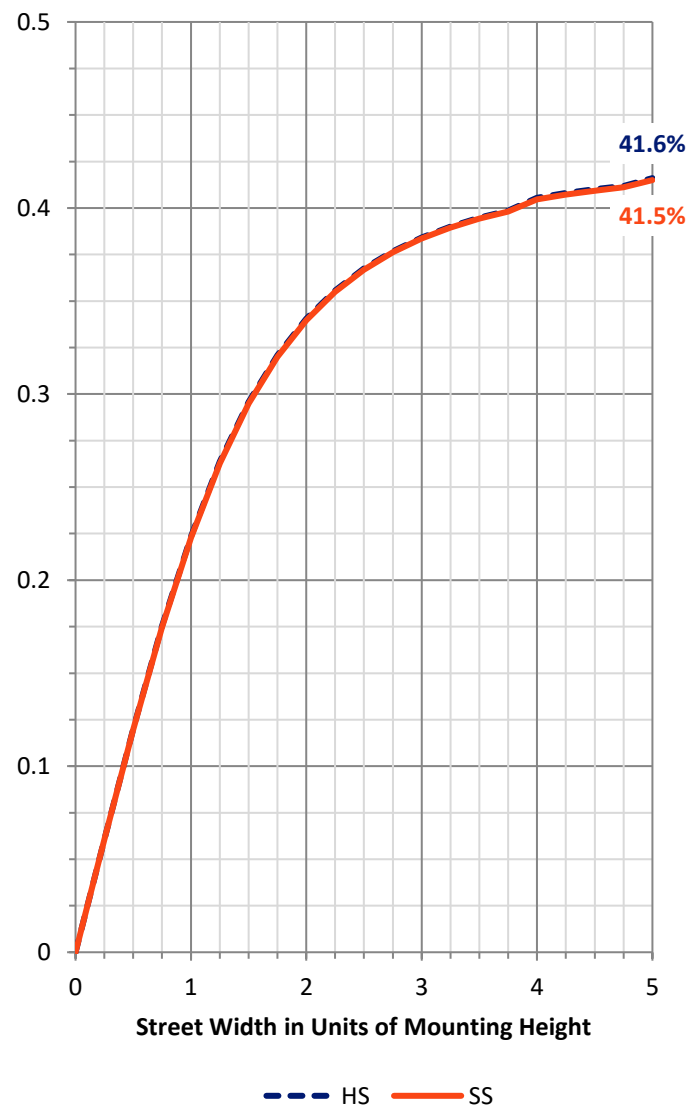
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2186.1	412.7	2598.7
	% Fixture	42.1	7.9	50.0
Street Side	Lumens	2186.1	412.7	2598.7
	% Fixture	42.1	7.9	50.0
Total	Lumens	4372.1	825.3	5197.5
	% Fixture	84.1	15.9	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.9	0.4
10°-20°	69.0	1.3
20°-30°	152.2	2.9
30°-40°	306.6	5.9
40°-50°	584.8	11.3
50°-60°	1001.2	19.3
60°-70°	1213.0	23.3
70°-80°	840.4	16.2
80°-90°	185.0	3.6
90°-100°	38.4	0.7
100°-110°	59.5	1.1
110°-120°	119.6	2.3
120°-130°	148.9	2.9
130°-140°	153.3	3.0
140°-150°	136.3	2.6
150°-160°	103.9	2.0
160°-170°	51.8	1.0
170°-180°	13.6	0.3
0°-90°	4372.1	84.1
0°-180°	5197.5	100.0

Coefficient of Utilization



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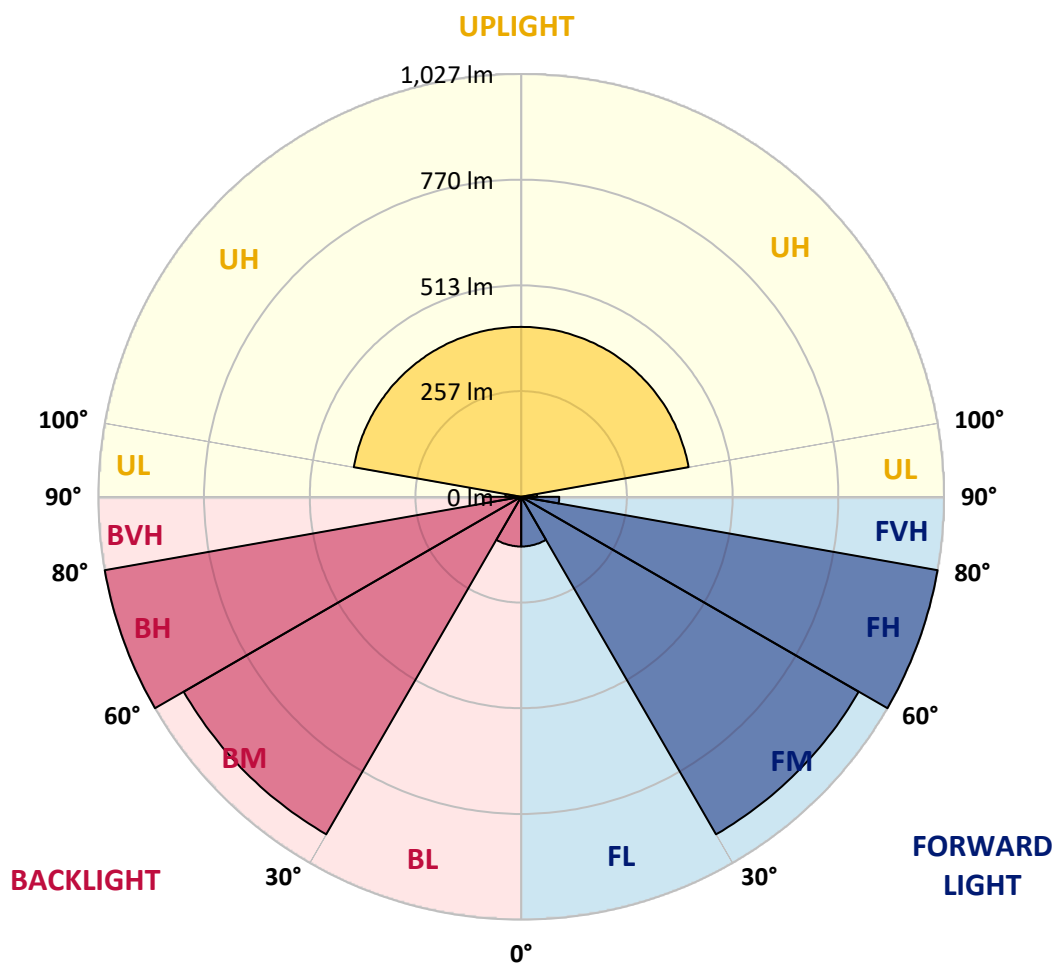
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	120.6	2.3			
FM	(30°-60°)	946.3	18.2			
FH	(60°-80°)	1026.7	19.8			G1/1800
FVH	(80°-90°)	92.5	1.8			G1/100
BL	(0°-30°)	120.6	2.3	B1/500		
BM	(30°-60°)	946.3	18.2	B1/1000		
BH	(60°-80°)	1026.7	19.8	B3/2500		G3/2500
BVH	(80°-90°)	92.5	1.8			G1/100
UL	(90°-100°)	38.4	0.7		U2/50	
UH	(100°-180°)	412.7	7.9		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°	87°
0°	199.2	199.2	199.2	199.2	199.2	199.2	199.2	199.2	199.2	199.2	199.2
2.5°	201.0	201.0	201.9	201.9	201.9	201.9	201.9	201.9	201.9	201.9	201.9
5°	204.6	204.6	204.6	205.4	205.4	205.4	205.4	205.4	204.6	204.6	204.6
7.5°	209.9	209.9	209.9	210.8	210.8	210.8	209.9	209.9	209.0	209.0	209.0
10°	217.1	217.1	218.0	218.0	217.1	217.1	216.2	215.3	216.2	215.3	215.3
12.5°	226.9	228.7	227.8	227.8	226.0	226.0	225.1	225.1	225.1	224.2	224.2
15°	241.2	241.2	242.1	240.3	240.3	237.6	236.7	235.8	236.7	236.7	235.8
17.5°	258.2	258.2	258.2	255.5	253.7	251.9	251.0	250.1	249.2	250.1	250.1
20°	284.1	282.3	278.7	276.9	272.4	270.7	268.9	268.0	267.1	267.1	267.1
22.5°	310.9	309.1	304.6	301.0	297.5	293.0	291.2	287.6	286.7	288.5	287.6
25°	336.8	339.4	334.1	329.6	326.9	319.8	315.3	314.4	312.6	311.7	312.6
27.5°	368.9	370.7	366.2	360.0	354.6	349.3	344.8	343.0	343.9	343.9	344.8
30°	404.6	408.2	401.1	397.5	389.5	382.3	378.7	380.5	382.3	385.0	384.1
32.5°	445.7	445.7	442.2	435.9	427.0	420.7	418.9	421.6	429.7	433.2	432.3
35°	494.0	490.4	486.8	478.8	467.2	463.6	467.2	476.1	487.7	494.0	497.5
37.5°	544.0	536.8	531.5	522.6	517.2	515.4	523.4	540.4	552.9	564.5	569.9
40°	586.9	586.9	579.7	569.9	564.5	572.6	585.1	609.2	633.3	645.8	654.8
42.5°	629.7	635.1	627.1	619.0	619.0	629.7	653.9	691.4	736.9	763.7	768.2
45°	674.4	684.2	673.5	668.2	673.5	695.0	740.5	812.9	880.8	924.5	917.4
47.5°	720.9	729.8	720.0	717.3	729.8	768.2	837.9	930.8	998.7	1044.2	1062.1
50°	778.0	771.8	768.2	767.3	793.2	850.4	940.6	1040.6	1149.6	1190.7	1213.0
52.5°	826.3	815.5	813.8	820.0	862.9	931.7	1044.2	1228.2	1379.2	1481.0	1484.6
55°	868.2	856.6	862.9	878.1	936.1	1031.7	1173.7	1389.0	1516.8	1592.7	1598.9
57.5°	904.0	897.7	908.4	929.0	1004.0	1118.4	1277.4	1455.1	1560.5	1621.3	1627.5
60°	936.1	935.2	946.9	981.7	1065.7	1169.3	1300.6	1459.6	1569.5	1623.9	1632.0
62.5°	961.1	966.5	983.5	1015.6	1082.6	1163.9	1295.2	1478.3	1617.7	1689.1	1699.0
65°	982.6	987.9	1004.9	1015.6	1075.5	1153.2	1324.7	1490.8	1610.5	1684.7	1690.9
67.5°	994.2	1000.4	997.8	999.6	1046.0	1106.7	1255.0	1397.9	1496.2	1564.1	1572.1
70°	992.4	987.0	965.6	943.3	953.1	996.0	1130.0	1249.7	1339.0	1392.6	1395.3
72.5°	954.9	946.0	895.0	843.2	828.0	856.6	973.7	1063.9	1139.8	1188.9	1204.1
75°	870.0	852.2	778.0	711.0	677.1	698.5	788.7	867.4	923.6	971.9	981.7
77.5°	715.5	704.8	630.6	557.4	519.9	534.2	605.6	652.1	712.8	762.8	750.3
80°	520.8	519.0	459.1	393.9	367.1	373.4	411.8	457.3	495.8	533.3	535.1
82.5°	340.3	335.0	294.8	247.4	219.7	223.3	247.4	271.6	308.2	332.3	339.4
85°	168.8	166.1	148.3	118.8	103.6	103.6	115.2	129.5	147.4	158.1	157.2
87.5°	46.4	42.0	41.1	30.4	25.0	26.8	26.8	29.5	37.5	40.2	42.9
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	38.6
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	48.4
107.5°	72.0	72.0	70.0	67.0	66.0	68.0	68.0	66.0	60.0	59.0	59.4
110°	86.0	86.0	89.0	85.0	86.0	87.0	84.0	84.0	78.0	74.0	74.4

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	87°
112.5°	101.0	102.0	108.0	107.0	110.0	107.0	102.0	105.0	100.0	95.0	94.6
115°	121.0	122.0	128.0	128.0	129.0	124.0	121.0	125.0	123.0	116.0	114.8
117.5°	140.0	141.0	144.0	141.0	141.0	136.0	138.0	141.0	139.0	133.0	131.4
120°	152.0	153.0	155.0	149.0	149.0	147.0	150.0	153.0	148.0	145.0	143.8
122.5°	161.0	162.0	164.0	154.0	155.0	158.0	159.0	162.0	155.0	153.0	151.8
125°	169.0	169.0	172.0	163.0	165.0	168.0	167.0	168.0	163.0	160.0	159.2
127.5°	177.0	177.0	181.0	171.0	176.0	178.0	176.0	175.0	173.0	166.0	164.8
130°	187.0	188.0	191.0	179.0	186.0	186.0	183.0	183.0	184.0	171.0	170.2
132.5°	198.0	199.0	201.0	186.0	193.0	195.0	190.0	192.0	192.0	179.0	177.8
135°	210.0	210.0	209.0	192.0	199.0	201.0	196.0	201.0	199.0	185.0	184.6
137.5°	221.0	219.0	213.0	197.0	205.0	208.0	203.0	210.0	204.0	191.0	190.6
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	201.4
147.5°	230.0	227.0	219.0	207.0	216.0	229.0	239.0	229.0	212.0	204.0	204.8
150°	224.0	221.0	220.0	214.0	222.0	235.0	242.0	232.0	214.0	210.0	210.4
152.5°	216.0	214.0	221.0	220.0	230.0	241.0	242.0	235.0	219.0	215.0	215.4
155°	208.0	207.0	219.0	224.0	237.0	243.0	238.0	234.0	224.0	220.0	219.6
157.5°	203.0	203.0	216.0	224.0	234.0	235.0	228.0	229.0	226.0	222.0	220.8
160°	199.0	198.0	210.0	213.0	219.0	219.0	215.0	219.0	221.0	218.0	216.8
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	190.8
167.5°	154.0	152.0	156.0	155.0	159.0	159.0	160.0	165.0	168.0	172.0	172.8
170°	142.0	141.0	145.0	144.0	147.0	147.0	148.0	152.0	155.0	159.0	159.4
172.5°	137.0	135.0	139.0	138.0	141.0	141.0	141.0	145.0	146.0	149.0	149.8
175°	136.0	134.0	137.0	137.0	139.0	139.0	138.0	141.0	141.0	143.0	143.4
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°	199.2
2.5°	201.9
5°	204.6
7.5°	209.0
10°	216.2
12.5°	224.2
15°	235.8
17.5°	249.2
20°	267.1
22.5°	289.4
25°	312.6
27.5°	343.9
30°	385.0
32.5°	433.2
35°	495.8
37.5°	565.4
40°	651.2
42.5°	763.7
45°	925.4
47.5°	1053.2
50°	1201.4
52.5°	1490.0
55°	1600.7
57.5°	1629.3
60°	1632.9
62.5°	1694.5
65°	1698.1
67.5°	1565.9
70°	1399.7
72.5°	1202.3
75°	988.8
77.5°	763.7
80°	534.2
82.5°	334.1
85°	156.3
87.5°	39.3
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)