

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: P198325

Luminaire Tested: **TT-C2-LED-E1-RW-8030-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198325
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-C2-LED-E1-RW-8030-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
RECTANGULAR DISTRIBUTION
Light Source: (168) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4137.9 lumens
Efficiency: N/A
Efficacy: 80.5 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): 51.4
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

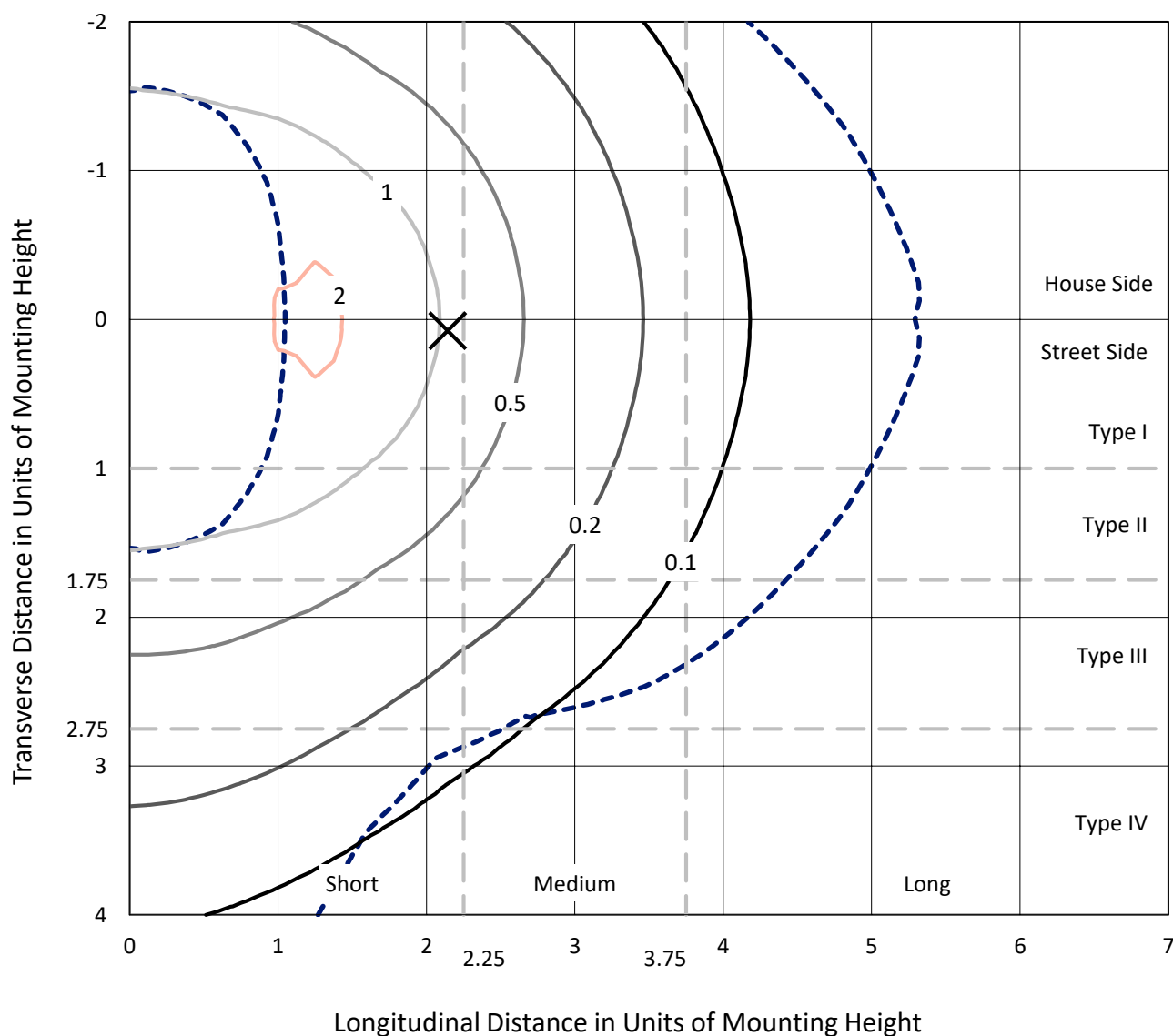


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

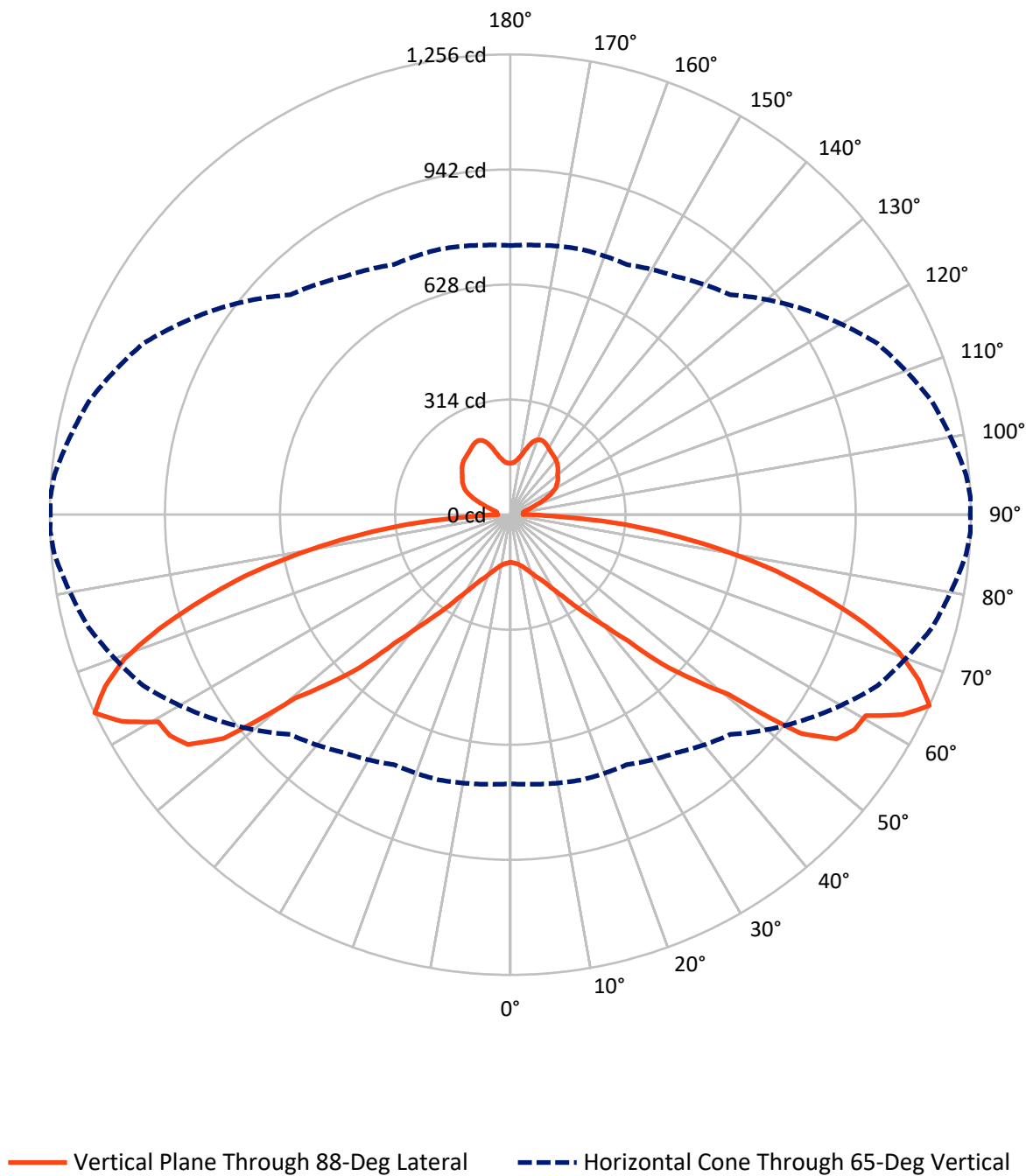


Based on 10 foot mounting height. Maximum calculated value = 2.1 fc
Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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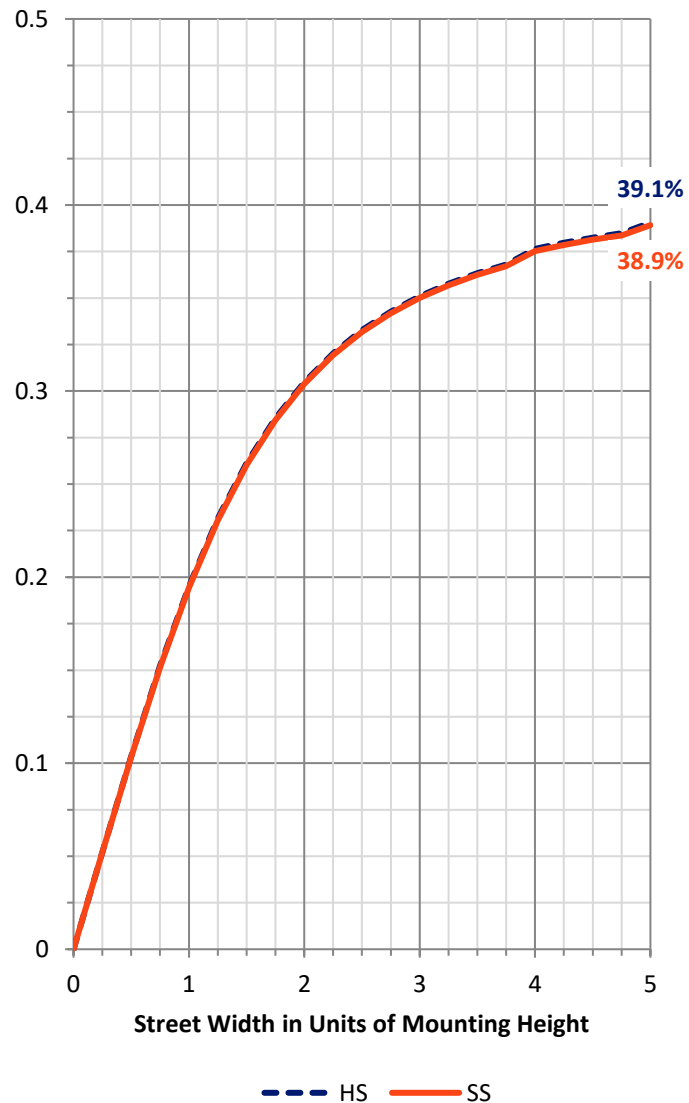
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1656.3	412.7	2068.9
	% Fixture	40.0	10.0	50.0
Street Side	Lumens	1656.3	412.7	2068.9
	% Fixture	40.0	10.0	50.0
Total	Lumens	3312.5	825.3	4137.9
	% Fixture	80.1	19.9	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.0	0.3
10°-20°	45.0	1.1
20°-30°	99.5	2.4
30°-40°	198.3	4.8
40°-50°	379.5	9.2
50°-60°	679.3	16.4
60°-70°	900.1	21.8
70°-80°	751.2	18.2
80°-90°	246.8	6.0
90°-100°	38.4	0.9
100°-110°	59.5	1.4
110°-120°	119.6	2.9
120°-130°	148.9	3.6
130°-140°	153.3	3.7
140°-150°	136.3	3.3
150°-160°	103.9	2.5
160°-170°	51.8	1.3
170°-180°	13.6	0.3
0°-90°	3312.5	80.1
0°-180°	4137.9	100.0

Coefficient of Utilization



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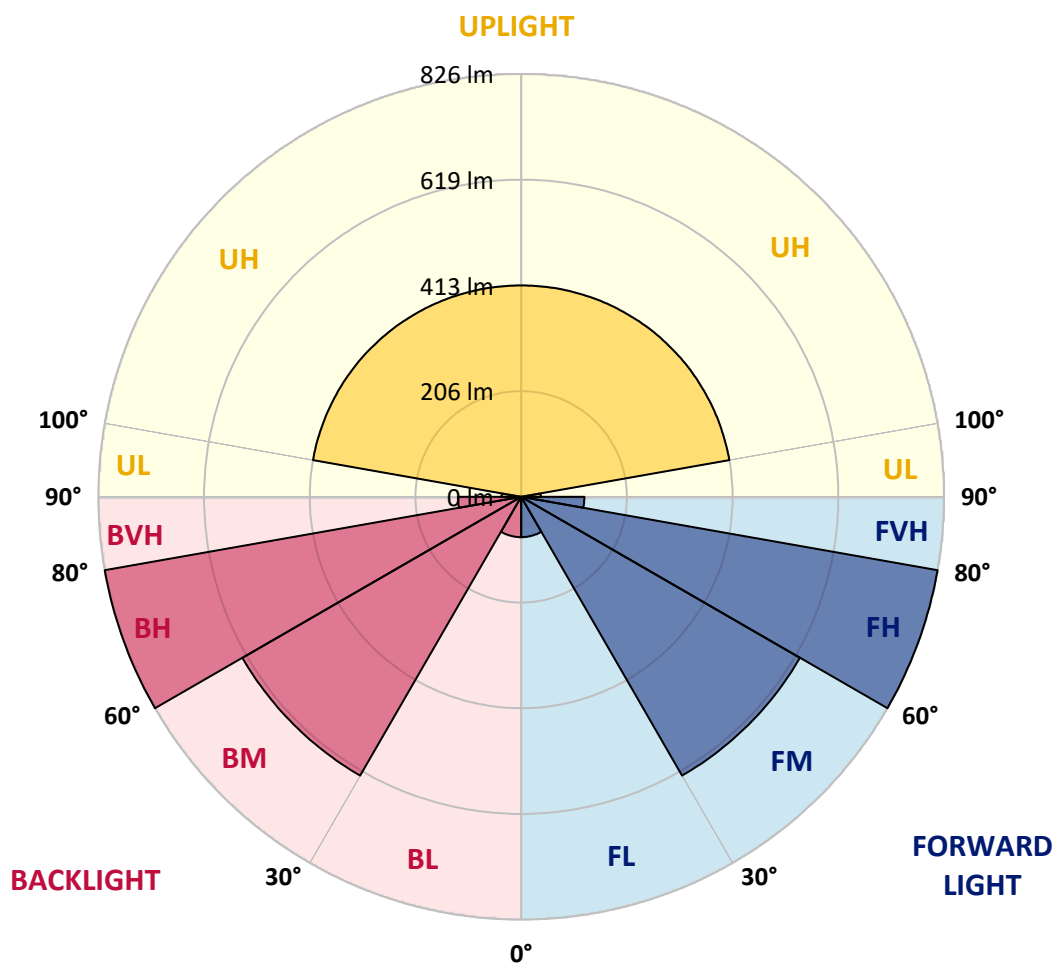
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	78.8	1.9			
FM	(30°-60°)	628.5	15.2			
FH	(60°-80°)	825.6	20.0			G1/1800
FVH	(80°-90°)	123.4	3.0			G2/225
BL	(0°-30°)	78.8	1.9	B0/110		
BM	(30°-60°)	628.5	15.2	B1/1000		
BH	(60°-80°)	825.6	20.0	B2/1000		G2/1000
BVH	(80°-90°)	123.4	3.0			G2/225
UL	(90°-100°)	38.4	0.9		U2/50	
UH	(100°-180°)	412.7	10.0		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°	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5
2.5°	130.8	130.8	130.8	130.8	131.5	131.5	131.5	131.5	131.5	131.5	131.5
5°	132.8	132.8	133.4	133.4	134.1	134.1	134.1	134.1	133.4	133.4	133.4
7.5°	136.0	136.7	137.3	137.3	137.3	136.7	136.0	136.0	135.4	135.4	135.4
10°	141.9	141.9	142.6	142.6	141.9	141.3	140.6	140.0	140.0	140.0	139.3
12.5°	149.1	149.1	149.7	149.1	147.8	147.1	145.8	145.2	145.2	144.5	144.5
15°	158.8	160.1	160.1	158.2	156.2	154.3	153.6	152.3	152.3	152.3	152.3
17.5°	173.8	173.1	170.5	168.6	167.3	164.0	162.7	162.1	160.8	160.8	160.8
20°	190.7	189.4	186.2	183.6	181.0	177.1	174.4	173.1	172.5	171.8	171.8
22.5°	209.6	207.6	203.1	201.1	195.9	192.0	188.8	186.2	184.2	183.6	184.9
25°	229.1	229.1	225.2	220.0	214.8	208.9	204.4	201.1	198.5	197.9	197.2
27.5°	250.0	251.3	246.1	240.8	235.0	227.2	222.6	218.1	217.4	216.8	216.1
30°	272.1	274.7	269.5	264.3	256.5	248.7	242.8	240.8	238.9	240.2	240.2
32.5°	299.4	300.7	294.9	291.0	280.6	272.7	267.5	266.2	266.9	266.2	268.2
35°	331.3	329.4	324.8	317.0	307.9	300.7	296.8	299.4	306.6	309.2	307.9
37.5°	366.5	359.3	356.7	346.9	338.5	332.6	333.9	340.4	346.3	350.9	349.6
40°	392.5	393.8	386.7	377.5	369.7	368.4	375.6	384.0	395.1	399.0	400.3
42.5°	419.2	427.0	418.5	409.4	405.5	408.1	418.5	435.5	460.2	473.2	471.3
45°	449.8	458.3	449.1	442.0	441.3	451.1	473.9	518.1	554.6	580.6	583.2
47.5°	481.7	488.2	479.7	475.2	481.7	500.6	539.6	598.9	637.9	668.5	673.7
50°	522.0	519.4	512.9	512.3	526.6	561.1	613.8	673.7	744.0	764.2	770.7
52.5°	561.8	552.0	550.7	553.9	579.3	618.4	688.7	806.5	910.0	982.9	990.7
55°	598.9	587.8	590.4	598.9	634.7	693.9	791.5	935.4	1025.9	1077.3	1079.9
57.5°	632.7	626.2	632.1	643.8	697.1	773.3	876.8	995.3	1063.6	1100.1	1106.6
60°	667.2	665.9	673.1	694.5	751.8	819.5	906.1	1010.9	1079.2	1107.2	1113.7
62.5°	699.8	704.3	713.4	734.3	778.5	831.2	915.2	1043.4	1145.6	1189.9	1201.0
65°	734.3	738.2	749.2	752.5	792.2	848.2	977.0	1104.6	1190.6	1247.8	1255.6
67.5°	765.5	770.7	766.8	764.2	798.7	848.2	964.7	1076.6	1148.2	1191.9	1200.3
70°	795.4	789.6	774.0	753.8	763.5	797.4	904.1	1001.1	1073.4	1114.4	1122.9
72.5°	803.2	795.4	753.8	707.6	693.2	718.6	816.9	902.8	962.1	1000.5	1005.7
75°	783.1	766.8	696.5	632.7	605.4	630.8	712.8	786.3	828.0	869.6	872.9
77.5°	702.4	691.9	613.8	536.4	505.8	524.7	593.0	645.1	693.2	733.6	741.4
80°	576.7	567.6	498.6	435.5	394.5	407.5	457.6	499.3	545.5	577.4	587.1
82.5°	424.4	423.1	373.6	314.4	285.8	284.5	322.2	363.2	398.4	429.0	435.5
85°	266.9	266.9	233.0	197.2	167.3	167.9	190.7	220.7	264.9	284.5	286.4
87.5°	90.5	85.9	80.1	65.1	52.1	46.9	50.1	57.3	87.2	108.1	112.0
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°	129.5
2.5°	131.5
5°	133.4
7.5°	135.4
10°	139.3
12.5°	145.2
15°	151.7
17.5°	160.8
20°	171.8
22.5°	184.2
25°	197.2
27.5°	216.8
30°	239.5
32.5°	267.5
35°	308.5
37.5°	350.9
40°	403.6
42.5°	476.5
45°	576.7
47.5°	673.7
50°	763.5
52.5°	974.4
55°	1082.5
57.5°	1105.9
60°	1111.8
62.5°	1195.1
65°	1254.3
67.5°	1199.7
70°	1120.9
72.5°	1001.8
75°	878.1
77.5°	741.4
80°	579.3
82.5°	435.5
85°	281.9
87.5°	108.7
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)