

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: P198285

Luminaire Tested: **TT-C1-LED-E1-WQ-LWR-LW-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198285
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P27139) AND SCALED
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: TT-C1-LED-E1-WQ-LWR-LW-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
WIDE DISTRIBUTION WITH LumaWatt WIRELESS SENSOR
Light Source: (168) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4137.9 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - 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



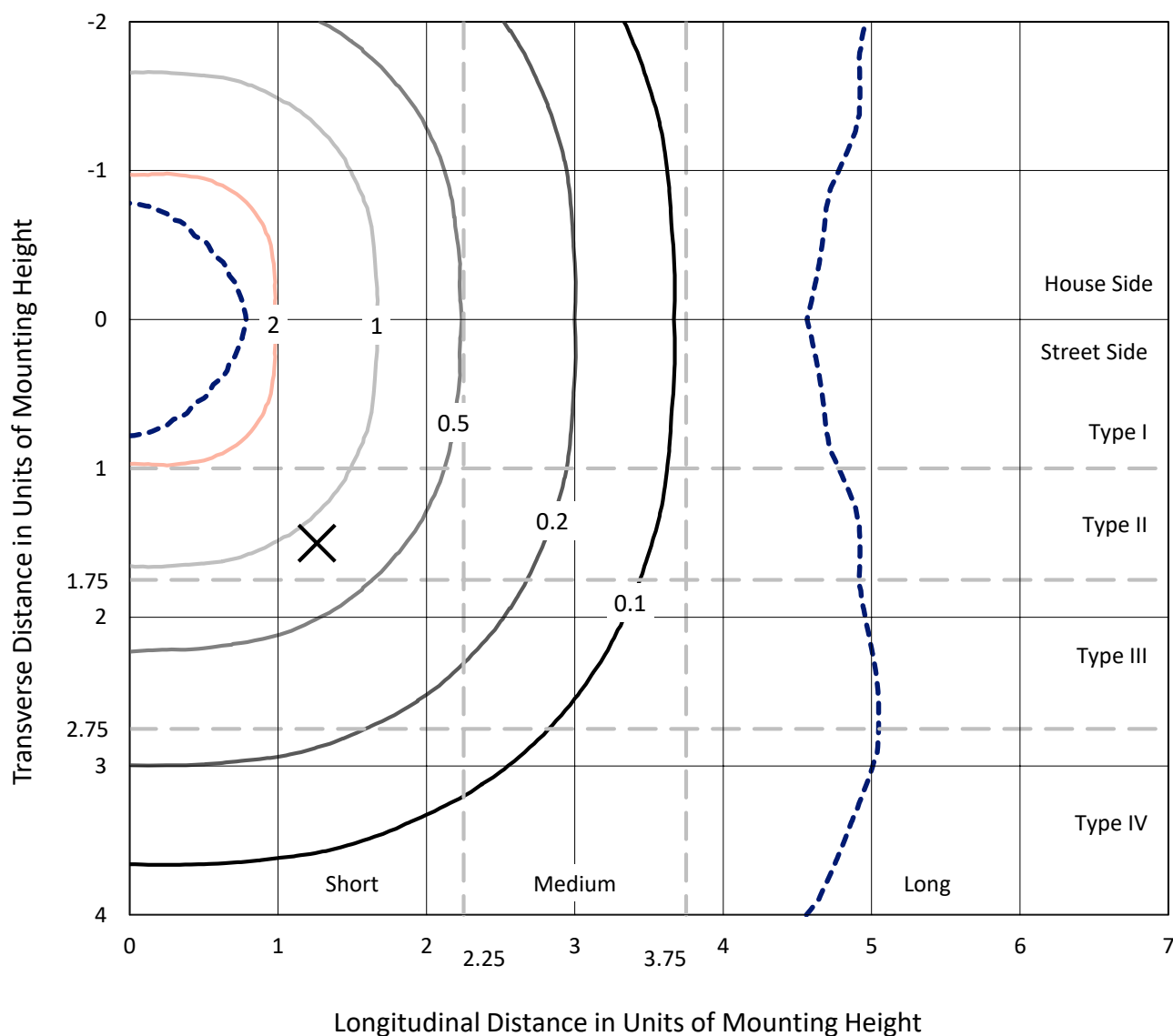
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

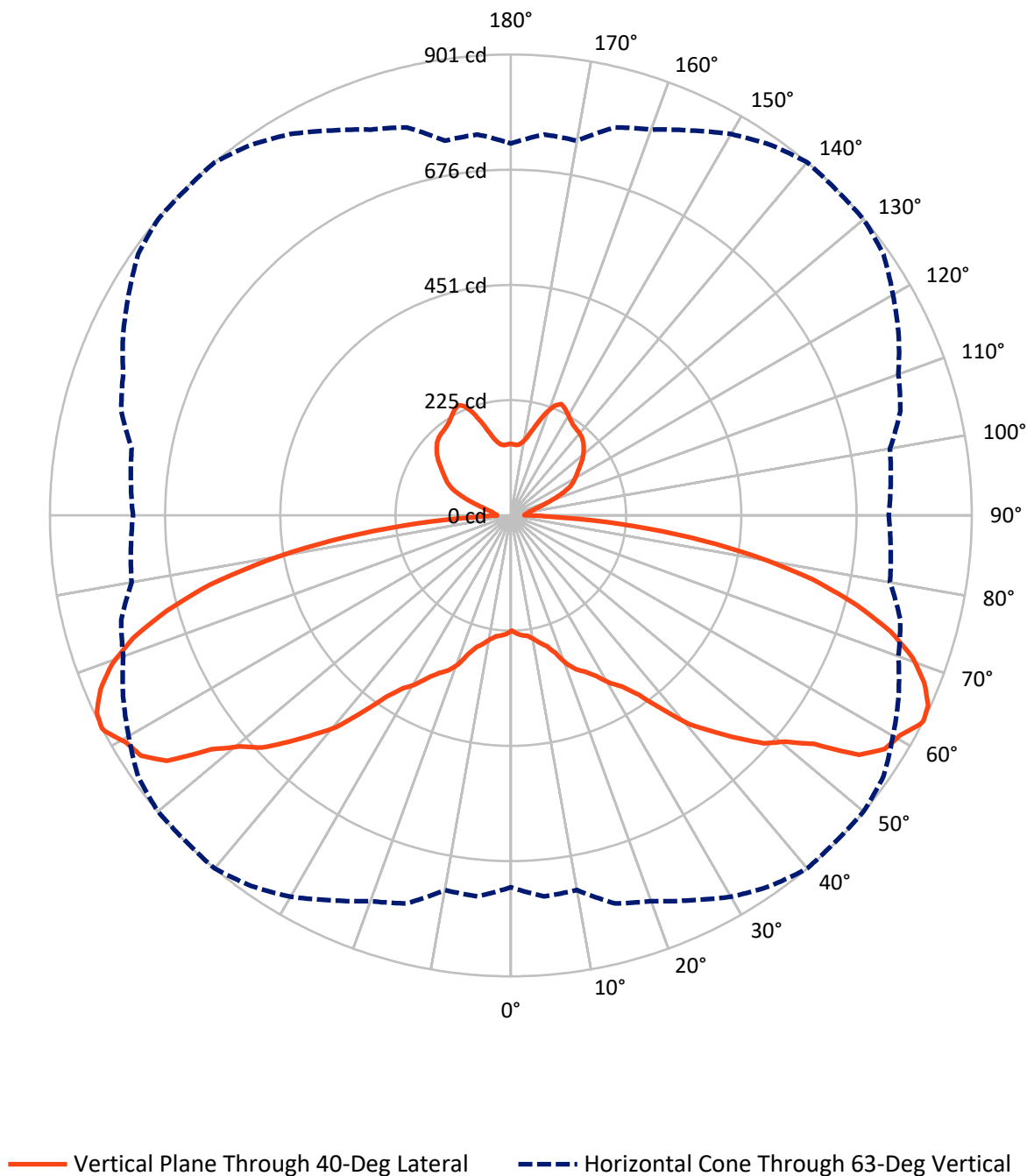


Based on 10 foot mounting height. Maximum calculated value = 2.5 fc
Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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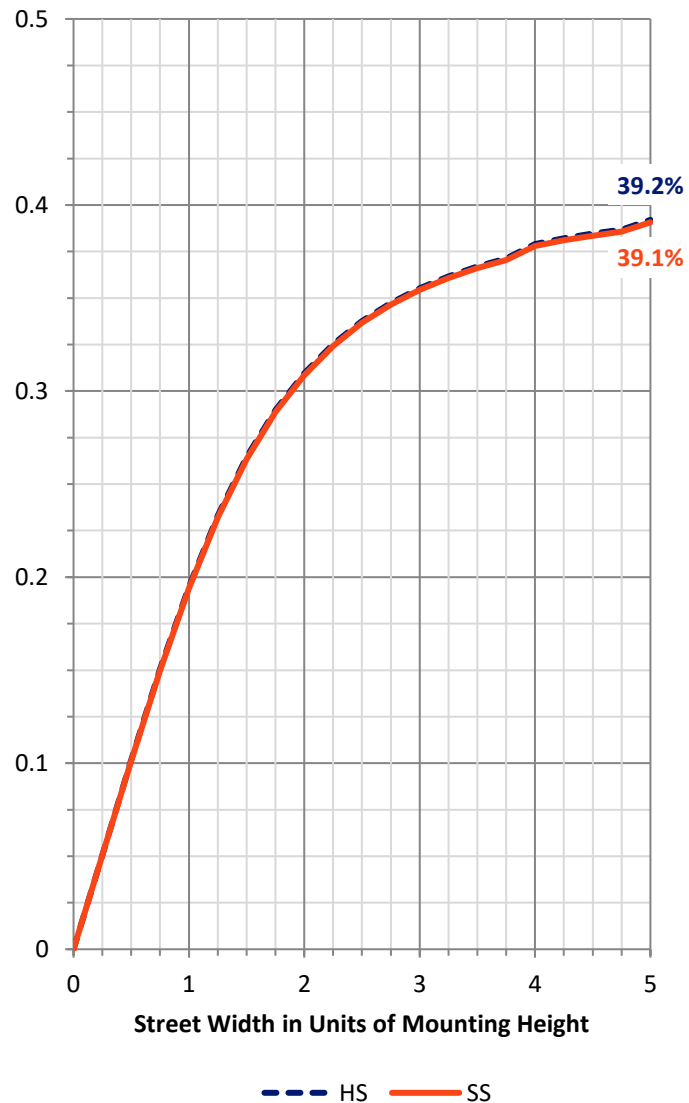
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1657.0	412.0	2068.9
	% Fixture	40.0	10.0	50.0
Street Side	Lumens	1657.0	412.0	2068.9
	% Fixture	40.0	10.0	50.0
Total	Lumens	3313.9	824.0	4137.9
	% Fixture	80.1	19.9	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.7	0.5
10°-20°	77.3	1.9
20°-30°	157.2	3.8
30°-40°	270.9	6.5
40°-50°	456.4	11.0
50°-60°	672.0	16.2
60°-70°	799.1	19.3
70°-80°	646.9	15.6
80°-90°	211.4	5.1
90°-100°	38.3	0.9
100°-110°	59.4	1.4
110°-120°	119.3	2.9
120°-130°	148.7	3.6
130°-140°	153.2	3.7
140°-150°	136.0	3.3
150°-160°	103.7	2.5
160°-170°	51.8	1.3
170°-180°	13.6	0.3
0°-90°	3313.9	80.1
0°-180°	4137.9	100.0

Coefficient of Utilization



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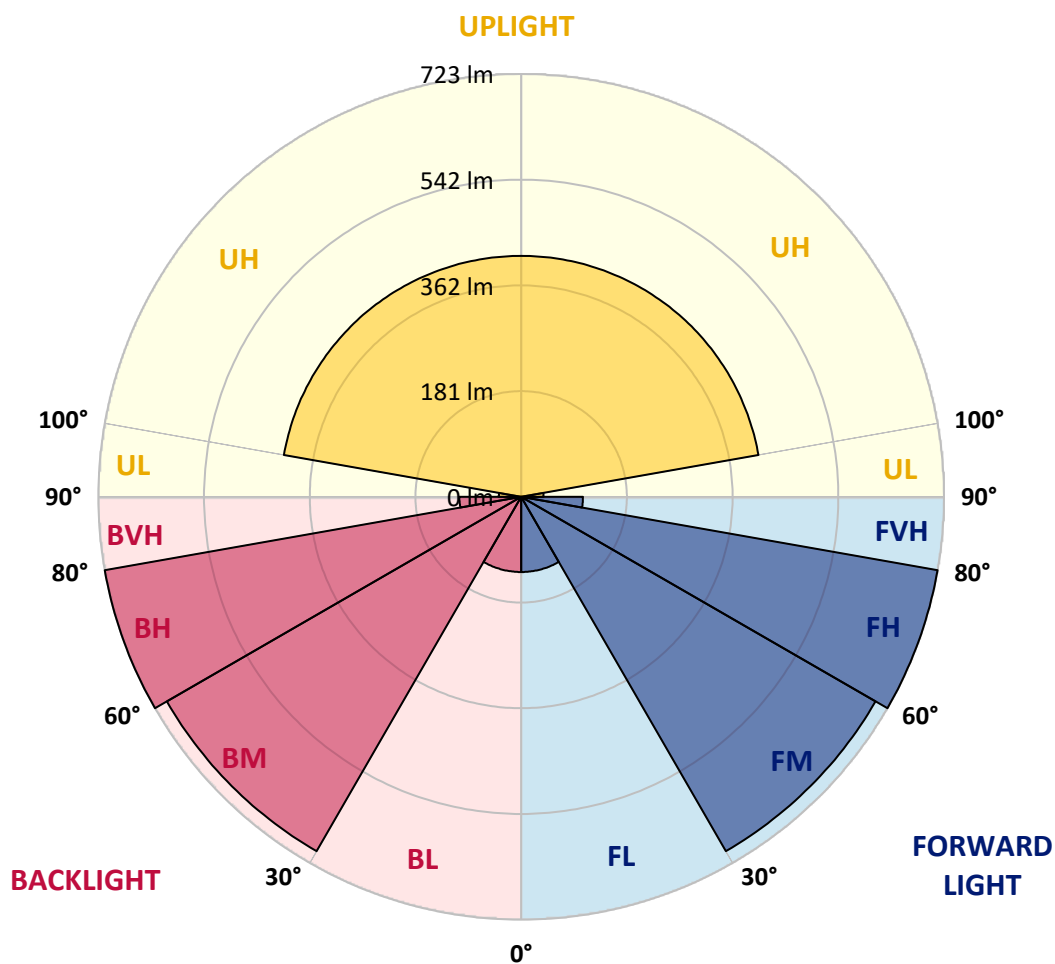
CATALOG NUMBER: TT-C1-LED-E1-WQ-LWR-LW-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	128.6	3.1			
FM	(30°-60°)	699.6	16.9			
FH	(60°-80°)	723.0	17.5			G1/1800
FVH	(80°-90°)	105.7	2.6			G2/225
BL	(0°-30°)	128.6	3.1	B1/500		
BM	(30°-60°)	699.6	16.9	B1/1000		
BH	(60°-80°)	723.0	17.5	B2/1000		G1/1800
BVH	(80°-90°)	105.7	2.6			G2/225
UL	(90°-100°)	38.3	0.9		U2/50	
UH	(100°-180°)	412.0	10.0		U3/500	

BUG Rating: B2-U4-G2

Type V Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3
2.5°	232.4	232.4	232.4	232.4	232.4	232.4	231.7	232.4	231.7	231.7	231.7
5°	236.9	236.9	236.9	236.9	236.2	236.2	235.6	235.6	235.6	234.9	235.6
7.5°	238.8	238.8	238.8	238.8	238.1	238.1	238.1	238.1	238.1	238.1	238.1
10°	243.3	243.3	243.9	244.5	245.8	245.8	245.8	246.5	245.8	245.8	245.8
12.5°	252.9	252.2	253.5	254.8	256.1	256.7	256.7	256.7	256.1	256.1	256.7
15°	266.3	265.0	265.7	266.3	266.9	267.6	267.6	266.9	265.7	265.7	265.7
17.5°	283.6	281.7	281.0	280.4	280.4	281.7	282.9	282.3	282.9	282.3	282.9
20°	304.1	302.8	302.8	302.8	303.4	306.0	308.6	309.8	309.2	307.9	309.8
22.5°	317.5	318.2	321.3	320.7	320.1	322.7	325.8	328.4	327.1	325.2	326.5
25°	332.3	332.3	336.7	338.6	336.7	336.7	338.0	339.9	338.6	337.4	338.6
27.5°	348.9	348.9	350.8	352.7	351.5	351.5	353.4	356.6	355.9	355.3	355.9
30°	368.7	366.2	364.2	367.4	370.7	371.3	373.2	378.3	379.6	378.9	380.3
32.5°	387.3	383.4	384.8	386.7	393.7	396.3	395.6	399.5	398.8	396.9	399.5
35°	405.2	409.7	412.2	416.1	418.7	421.8	421.8	428.9	430.2	428.3	430.2
37.5°	439.8	441.7	448.7	449.4	452.6	464.7	466.1	475.7	480.8	478.2	478.8
40°	487.2	486.5	491.6	499.3	505.7	521.1	525.6	531.9	536.4	534.5	537.1
42.5°	525.6	520.4	524.3	540.9	548.0	559.5	565.2	568.5	576.8	574.2	577.4
45°	553.1	555.0	560.1	576.8	581.3	590.9	604.3	610.1	620.9	617.7	619.7
47.5°	579.9	588.9	593.4	601.1	615.2	628.0	644.6	650.4	665.7	664.5	662.6
50°	615.2	622.2	627.3	633.1	652.3	673.4	687.5	690.0	695.2	691.4	697.8
52.5°	653.0	652.3	656.8	672.8	699.6	708.0	720.2	731.7	742.5	746.4	742.5
55°	702.9	686.9	705.5	728.5	740.0	759.8	789.3	805.3	826.4	829.7	823.2
57.5°	723.3	723.3	742.5	756.0	777.2	812.3	843.7	851.4	862.2	856.5	862.9
60°	720.8	745.1	745.1	768.8	803.4	834.8	846.3	859.1	873.8	873.2	873.2
62.5°	724.0	747.7	741.3	782.3	803.4	829.0	854.6	878.3	898.8	898.1	897.5
63°	727.2	747.7	743.9	785.4	802.7	830.3	861.0	884.7	901.3	900.0	900.6
65°	736.8	731.0	754.1	780.3	800.1	841.1	866.7	885.3	896.9	896.2	896.2
67.5°	718.9	705.5	738.1	748.4	786.1	822.6	842.4	863.6	871.8	871.8	870.6
70°	663.8	669.6	692.0	708.6	747.0	779.7	796.4	823.2	833.4	833.4	832.8
72.5°	608.1	617.7	633.1	656.8	693.3	718.9	738.8	763.1	776.5	775.8	775.8
75°	537.1	546.0	564.0	586.4	618.4	643.4	659.3	682.4	697.8	703.5	697.1
77.5°	457.1	459.6	476.3	499.3	527.5	544.8	569.1	591.5	604.3	603.6	601.7
80°	359.7	363.0	377.1	403.3	418.7	439.1	461.6	473.7	484.6	484.6	483.3
82.5°	248.4	255.4	269.5	286.8	302.8	320.7	332.9	345.0	354.0	353.4	351.5
85°	140.2	143.4	156.8	167.7	179.9	191.4	199.7	207.4	215.1	215.1	213.8
87.5°	42.3	37.8	45.5	49.9	56.3	62.1	65.9	73.6	78.7	73.0	73.0
90°	36.0	36.0	36.0	36.0	35.0	34.0	31.0	29.0	27.0	26.0	26.0
92.5°	40.0	39.0	39.0	38.0	36.0	34.0	32.0	29.0	27.0	27.0	27.0
95°	44.0	43.0	42.0	41.0	38.0	36.0	34.0	32.0	31.0	30.0	30.0
97.5°	42.0	42.0	41.0	40.0	38.0	37.0	36.0	35.0	34.0	33.0	32.0
100°	45.0	45.0	45.0	44.0	42.0	40.0	39.0	38.0	36.0	36.0	35.0
102.5°	51.0	51.0	50.0	49.0	47.0	46.0	45.0	44.0	42.0	42.0	42.0
105°	60.0	60.0	59.0	57.0	55.0	54.0	53.0	53.0	51.0	52.0	52.0
107.5°	72.0	72.0	72.0	70.0	68.0	67.0	66.0	66.0	66.0	68.0	68.0

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	86.0	86.0	87.0	89.0	86.0	85.0	85.0	86.0	86.0	87.0	86.0
112.5°	101.0	102.0	104.0	108.0	106.0	107.0	107.0	110.0	108.0	107.0	103.0
115°	121.0	122.0	123.0	128.0	126.0	128.0	127.0	129.0	126.0	124.0	120.0
117.5°	140.0	141.0	141.0	144.0	141.0	141.0	140.0	141.0	138.0	136.0	135.0
120°	152.0	153.0	154.0	155.0	151.0	149.0	147.0	149.0	147.0	147.0	148.0
122.5°	161.0	162.0	163.0	164.0	159.0	154.0	153.0	155.0	156.0	158.0	158.0
125°	169.0	169.0	170.0	172.0	168.0	163.0	160.0	165.0	166.0	168.0	167.0
127.5°	177.0	177.0	179.0	181.0	177.0	171.0	170.0	176.0	177.0	178.0	175.0
130°	187.0	188.0	190.0	191.0	185.0	179.0	179.0	186.0	187.0	186.0	183.0
132.5°	198.0	199.0	200.0	201.0	193.0	186.0	187.0	193.0	195.0	195.0	191.0
135°	210.0	210.0	211.0	209.0	199.0	192.0	193.0	199.0	202.0	201.0	197.0
137.5°	221.0	219.0	217.0	213.0	203.0	197.0	198.0	205.0	207.0	208.0	203.0
140°	229.0	226.0	222.0	216.0	205.0	200.0	201.0	207.0	210.0	213.0	212.0
142.5°	235.0	231.0	225.0	218.0	206.0	201.0	202.0	208.0	212.0	218.0	218.0
145°	235.0	230.0	225.0	218.0	207.0	202.0	204.0	211.0	215.0	223.0	225.0
147.5°	230.0	227.0	223.0	219.0	210.0	207.0	209.0	216.0	220.0	229.0	233.0
150°	224.0	221.0	219.0	220.0	215.0	214.0	216.0	222.0	227.0	235.0	239.0
152.5°	216.0	214.0	216.0	221.0	220.0	220.0	224.0	230.0	234.0	241.0	241.0
155°	208.0	207.0	211.0	219.0	222.0	224.0	229.0	237.0	239.0	243.0	239.0
157.5°	203.0	203.0	207.0	216.0	220.0	224.0	229.0	234.0	232.0	235.0	230.0
160°	199.0	198.0	203.0	210.0	212.0	213.0	216.0	219.0	216.0	219.0	216.0
162.5°	185.0	184.0	188.0	193.0	194.0	193.0	196.0	198.0	195.0	198.0	196.0
165°	169.0	167.0	169.0	173.0	173.0	173.0	175.0	176.0	174.0	177.0	175.0
167.5°	154.0	152.0	153.0	156.0	156.0	155.0	157.0	159.0	157.0	159.0	158.0
170°	142.0	141.0	142.0	145.0	144.0	144.0	146.0	147.0	146.0	147.0	147.0
172.5°	137.0	135.0	136.0	139.0	139.0	138.0	140.0	141.0	140.0	141.0	140.0
175°	136.0	134.0	135.0	137.0	137.0	137.0	138.0	139.0	138.0	139.0	138.0
177.5°	137.0	136.0	136.0	139.0	138.0	138.0	139.0	140.0	139.0	139.0	138.0
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	225.3	225.3	225.3	225.3	225.3	225.3	225.3	225.3
2.5°	232.4	232.4	232.4	232.4	232.4	232.4	232.4	232.4
5°	235.6	236.2	236.2	236.9	236.9	236.9	236.9	236.9
7.5°	238.1	238.1	238.1	238.1	238.8	238.8	238.8	238.8
10°	245.8	246.5	245.8	245.8	244.5	243.9	243.9	243.9
12.5°	256.7	257.3	257.3	256.1	254.8	253.5	252.9	252.2
15°	266.9	268.8	267.6	266.9	265.7	266.3	266.3	266.9
17.5°	282.9	283.6	281.7	280.4	279.8	281.0	282.3	282.9
20°	310.5	309.2	305.4	304.1	302.8	302.8	304.1	304.1
22.5°	327.8	324.6	322.0	320.7	320.7	320.7	318.8	316.2
25°	339.9	338.0	336.1	337.4	338.6	336.7	332.3	331.6
27.5°	356.6	352.7	352.1	351.5	352.1	350.8	350.1	347.6
30°	378.3	373.2	371.9	370.7	366.8	365.5	366.8	368.7
32.5°	398.8	395.6	396.9	394.4	387.3	384.8	386.0	385.4
35°	428.3	422.5	422.5	417.3	415.5	414.8	409.7	405.2
37.5°	475.0	467.3	465.4	453.9	448.7	450.0	443.0	437.9
40°	531.9	526.2	521.1	508.2	501.2	492.3	487.8	487.8
42.5°	569.7	565.9	558.8	549.9	542.2	526.8	521.1	524.3
45°	611.3	606.2	591.5	582.5	575.5	564.6	558.2	551.8
47.5°	653.6	646.5	629.3	617.7	601.1	597.9	590.9	581.9
50°	690.7	688.2	676.0	656.8	635.7	630.5	624.2	615.8
52.5°	736.2	720.8	710.6	702.2	678.6	661.9	653.0	656.8
55°	810.5	791.2	765.0	738.8	733.6	713.7	691.4	703.5
57.5°	853.3	842.4	822.6	780.9	760.5	747.0	732.3	721.4
60°	863.6	843.7	839.3	807.9	775.2	747.0	752.8	727.2
62.5°	883.4	856.5	831.5	806.6	786.8	748.4	747.0	733.6
63°	889.8	862.9	836.7	806.6	788.7	752.8	745.8	738.8
65°	888.5	865.5	845.6	806.6	779.7	765.6	731.0	747.0
67.5°	864.2	845.0	821.9	795.0	750.2	739.4	715.1	718.2
70°	825.2	800.1	778.4	753.5	717.6	692.6	677.9	665.7
72.5°	764.3	741.9	718.9	695.9	663.8	633.8	623.5	610.1
75°	683.7	661.9	640.8	619.1	588.9	562.1	551.1	541.5
77.5°	591.5	572.9	542.9	522.3	505.1	476.3	466.1	455.8
80°	471.8	462.8	441.0	414.2	405.2	377.1	369.3	355.9
82.5°	343.1	334.2	316.8	298.3	287.4	272.7	259.9	251.0
85°	209.3	199.7	190.8	174.1	167.7	156.8	146.6	141.5
87.5°	75.6	67.8	60.8	53.1	49.3	41.6	40.3	36.5
90°	28.0	30.0	32.0	33.0	34.0	34.0	34.0	34.0
92.5°	28.0	30.0	32.0	33.0	35.0	36.0	36.0	36.0
95°	30.0	32.0	34.0	35.0	37.0	38.0	39.0	38.0
97.5°	33.0	34.0	34.0	35.0	36.0	36.0	36.0	36.0
100°	36.0	37.0	38.0	38.0	38.0	38.0	37.0	37.0
102.5°	43.0	44.0	44.0	42.0	42.0	41.0	41.0	41.0
105°	54.0	54.0	53.0	51.0	49.0	48.0	48.0	49.0
107.5°	68.0	68.0	66.0	63.0	60.0	59.0	59.0	60.0

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
110°	84.0	83.0	84.0	81.0	78.0	76.0	74.0	75.0
112.5°	102.0	102.0	105.0	103.0	100.0	98.0	95.0	94.0
115°	121.0	123.0	125.0	124.0	123.0	121.0	116.0	113.0
117.5°	138.0	140.0	141.0	139.0	139.0	139.0	133.0	129.0
120°	150.0	151.0	153.0	148.0	148.0	148.0	145.0	142.0
122.5°	159.0	160.0	162.0	156.0	155.0	156.0	153.0	150.0
125°	167.0	167.0	168.0	164.0	163.0	164.0	160.0	158.0
127.5°	176.0	175.0	175.0	173.0	173.0	173.0	166.0	163.0
130°	183.0	182.0	183.0	181.0	184.0	181.0	171.0	169.0
132.5°	190.0	189.0	192.0	189.0	192.0	190.0	179.0	176.0
135°	196.0	197.0	201.0	199.0	199.0	195.0	185.0	184.0
137.5°	203.0	205.0	210.0	207.0	204.0	198.0	191.0	190.0
140°	212.0	214.0	217.0	214.0	209.0	202.0	195.0	195.0
142.5°	220.0	222.0	223.0	217.0	211.0	204.0	198.0	198.0
145°	230.0	230.0	227.0	217.0	211.0	205.0	201.0	202.0
147.5°	239.0	236.0	229.0	218.0	212.0	207.0	204.0	206.0
150°	242.0	240.0	232.0	220.0	214.0	211.0	210.0	211.0
152.5°	242.0	241.0	235.0	223.0	219.0	217.0	215.0	216.0
155°	238.0	237.0	234.0	227.0	224.0	223.0	220.0	219.0
157.5°	228.0	229.0	229.0	226.0	226.0	225.0	222.0	219.0
160°	215.0	217.0	219.0	219.0	221.0	222.0	218.0	215.0
162.5°	196.0	199.0	200.0	201.0	204.0	208.0	207.0	207.0
165°	176.0	179.0	181.0	181.0	185.0	189.0	190.0	192.0
167.5°	160.0	163.0	165.0	164.0	168.0	171.0	172.0	174.0
170°	148.0	150.0	152.0	152.0	155.0	158.0	159.0	160.0
172.5°	141.0	144.0	145.0	144.0	146.0	149.0	149.0	151.0
175°	138.0	140.0	141.0	140.0	141.0	143.0	143.0	144.0
177.5°	138.0	140.0	140.0	138.0	140.0	141.0	141.0	141.0
180°	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0

(END OF REPORT)