

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: P821228

Luminaire Tested: **TT-D3-735-24VDC-RW-UPL**

Issue Date: 10/29/2020

Test Information

Test Method: LM-79-08
Report Number: P821228
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G2-2002-677-2) AND
Test Lab: INNOVATION CENTER
Issue Date: 10/29/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-D3-735-24VDC-RW-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
3500K, 70 CRI LEDS AND RECTANGULAR DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

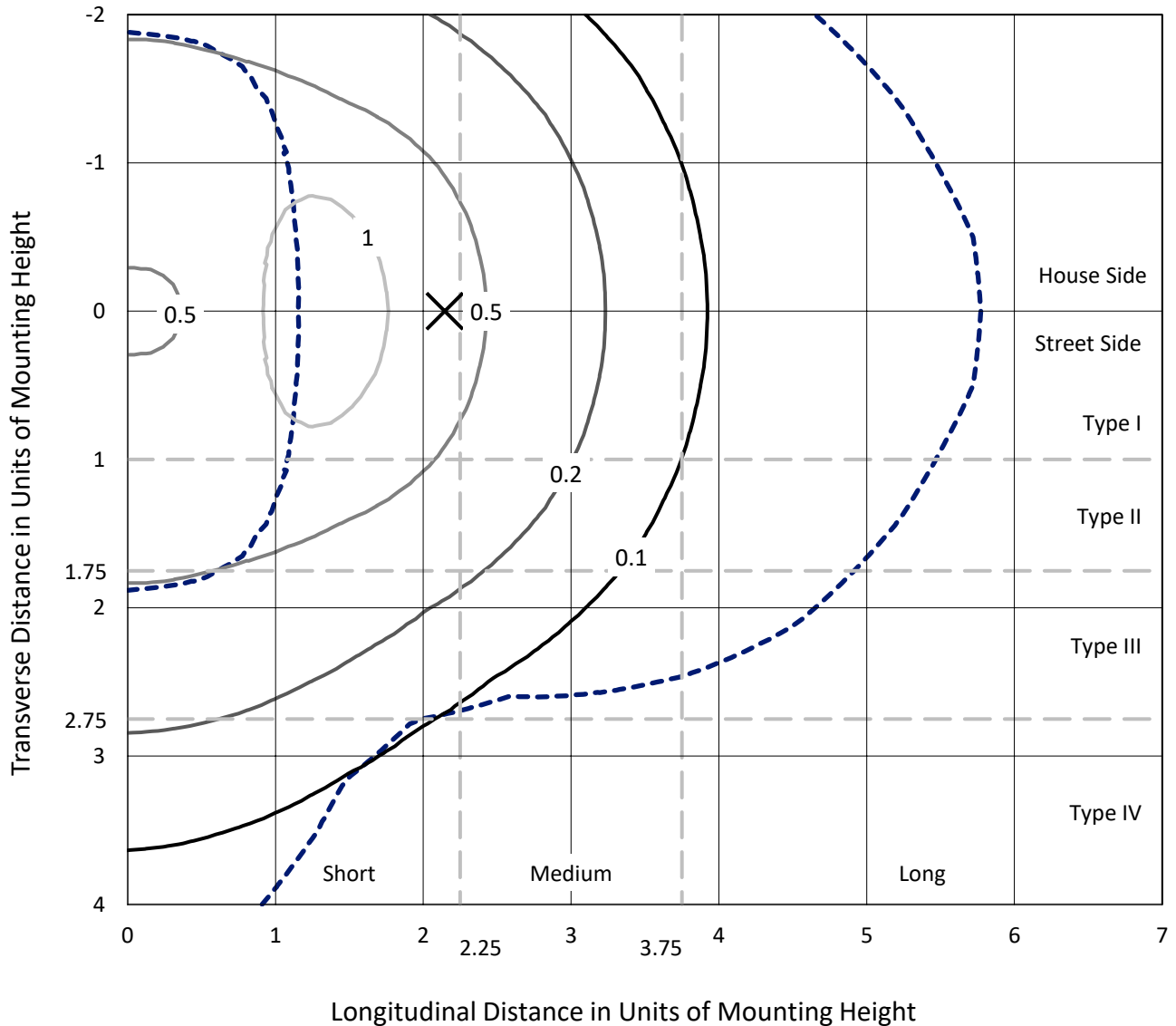
Lumens per Lamp: N/A
Luminaire Lumens: 5640.7 lumens
Efficiency: N/A
Efficacy: 122.6 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type IV - Short
BUG Rating: B3 - U4 - G3

Input Watts (W): 46
Input Voltage (V): NR
Input Current (A_{in}): 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

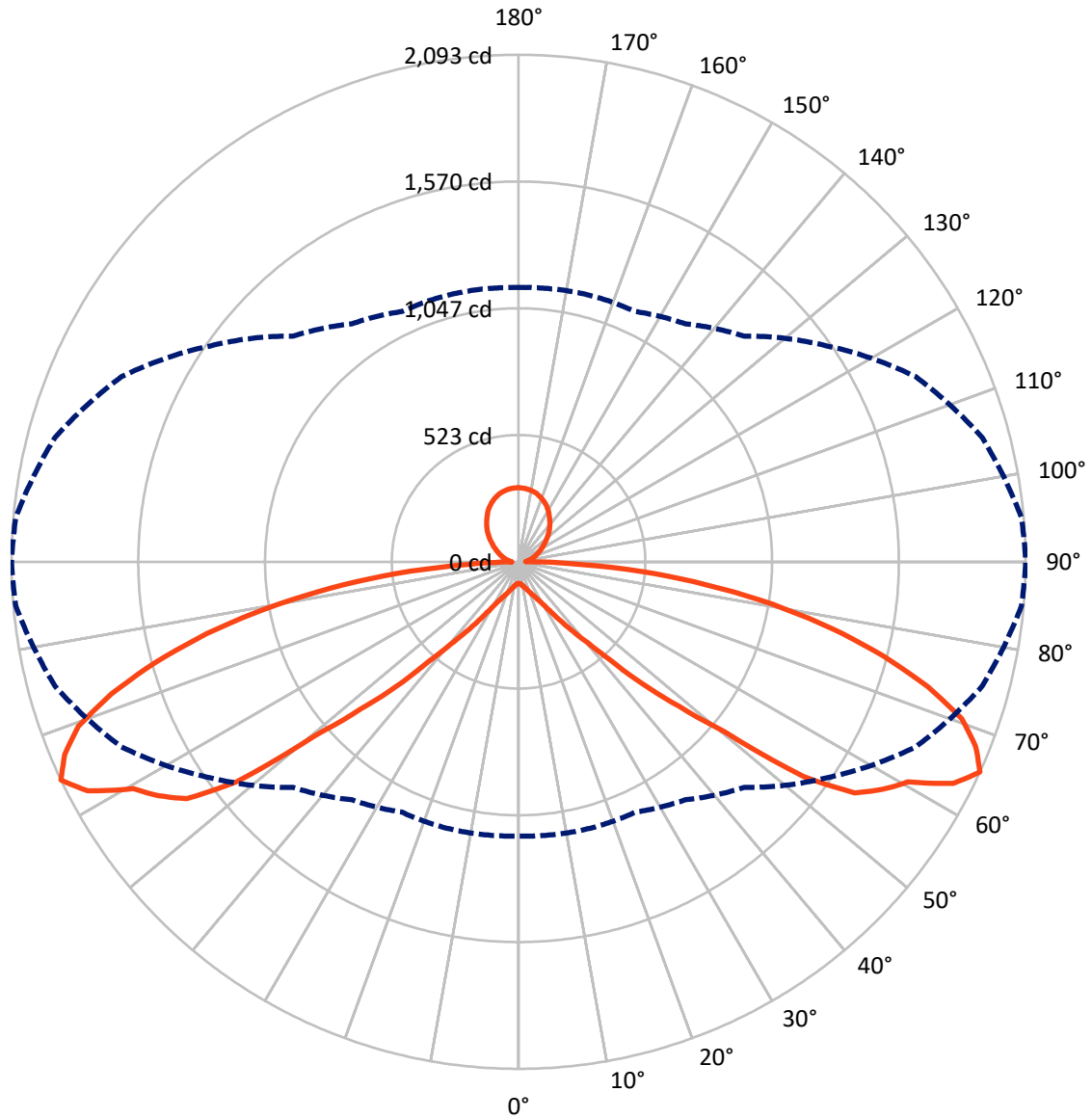
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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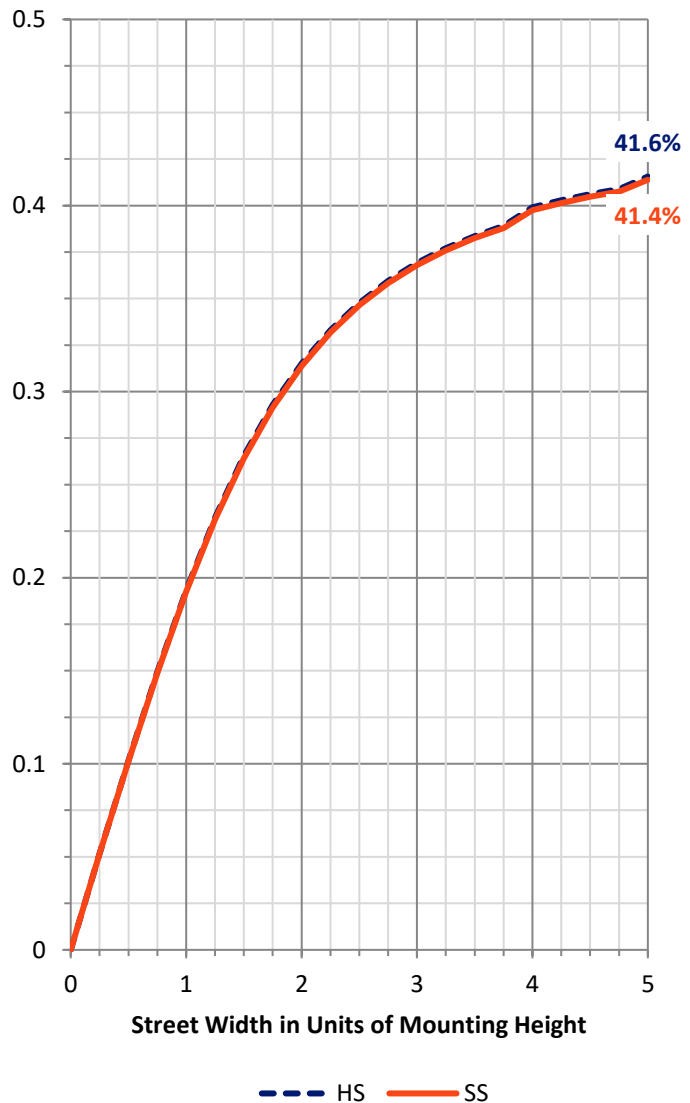
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2404.5	415.9	2820.4
	% Fixture	42.6	7.4	50.0
Street Side	Lumens	2404.5	415.9	2820.4
	% Fixture	42.6	7.4	50.0
Total	Lumens	4809.0	831.7	5640.7
	% Fixture	85.3	14.7	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	9.2	0.2
10°-20°	34.3	0.6
20°-30°	79.2	1.4
30°-40°	179.0	3.2
40°-50°	436.1	7.7
50°-60°	980.7	17.4
60°-70°	1433.2	25.4
70°-80°	1248.9	22.1
80°-90°	408.5	7.2
90°-100°	42.6	0.8
100°-110°	66.0	1.2
110°-120°	91.9	1.6
120°-130°	119.0	2.1
130°-140°	138.7	2.5
140°-150°	140.5	2.5
150°-160°	121.9	2.2
160°-170°	82.2	1.5
170°-180°	28.9	0.5
0°-90°	4809.0	85.3
0°-180°	5640.7	100.0



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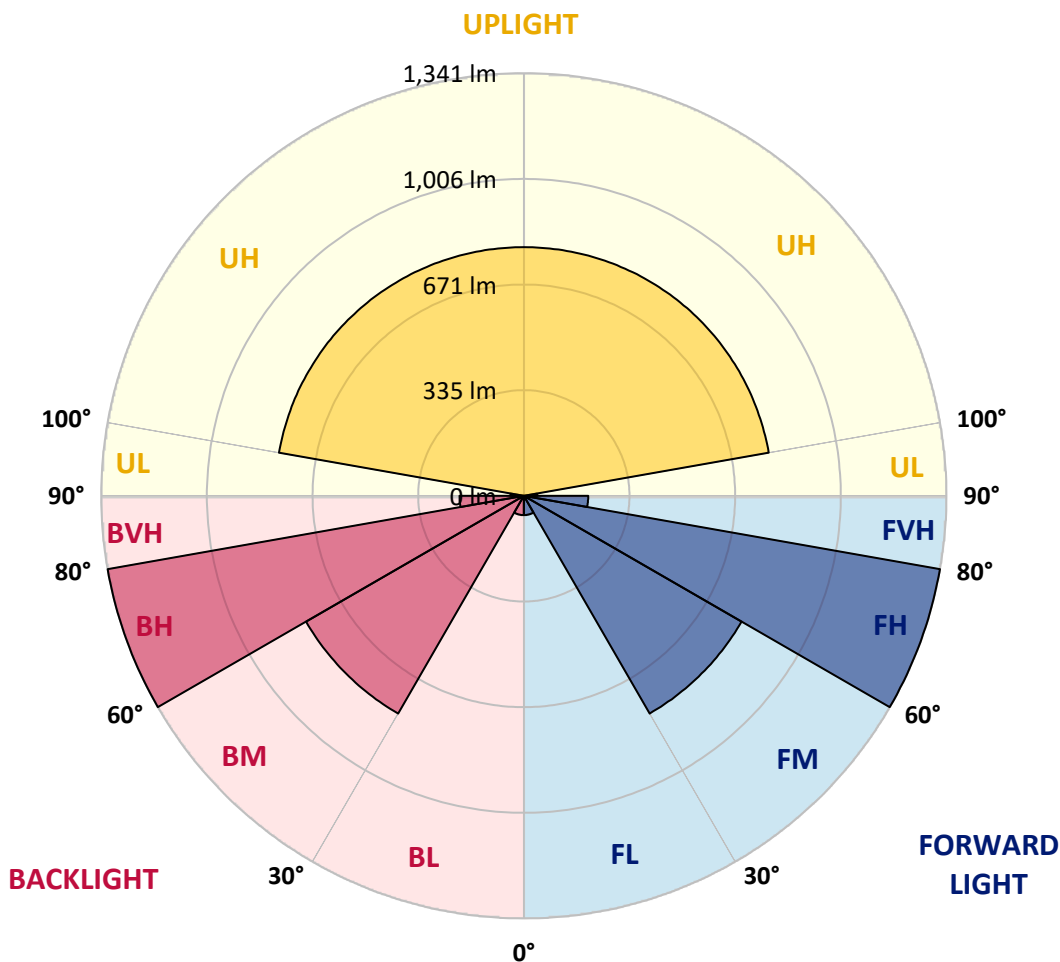
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	61.3	1.1			
FM (30°-60°)	797.9	14.1			
FH (60°-80°)	1341.0	23.8			G1/1800
FVH (80°-90°)	204.3	3.6			G2/225
BL (0°-30°)	61.3	1.1	B0/110		
BM (30°-60°)	797.9	14.1	B1/1000		
BH (60°-80°)	1341.0	23.8	B3/2500		G3/2500
BVH (80°-90°)	204.3	3.6			G2/225
UL (90°-100°)	42.6	0.8		U2/50	
UH (100°-180°)	789.1	14.0		U4/1000	

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°	90°
0°	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8
2.5°	88.9	88.9	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1
5°	92.3	92.3	92.3	92.3	93.5	93.5	92.3	92.3	92.3	92.3	92.3
7.5°	98.0	96.9	98.0	98.0	98.0	96.9	96.9	96.9	95.8	95.8	95.8
10°	103.7	103.7	104.9	103.7	103.7	102.6	102.6	102.6	101.5	101.5	101.5
12.5°	111.7	111.7	111.7	111.7	110.6	110.6	109.5	108.3	107.2	107.2	107.2
15°	122.0	120.9	120.9	119.7	118.6	117.4	116.3	116.3	115.2	115.2	115.2
17.5°	132.3	132.3	131.1	130.0	127.7	126.6	126.6	125.4	124.3	124.3	124.3
20°	144.8	144.8	143.7	141.4	139.1	138.0	136.8	136.8	135.7	135.7	135.7
22.5°	159.6	158.5	156.2	153.9	151.6	150.5	149.4	148.2	148.2	148.2	148.2
25°	175.6	174.4	173.3	169.9	166.5	165.3	163.0	163.0	161.9	163.0	163.0
27.5°	195.0	193.8	191.5	188.1	183.6	181.3	180.1	180.1	181.3	181.3	182.4
30°	218.9	216.6	214.3	209.8	205.2	201.8	201.8	202.9	206.4	208.6	208.6
32.5°	247.4	246.3	242.8	238.3	230.3	228.0	230.3	237.1	241.7	245.1	247.4
35°	280.5	279.3	274.8	266.8	261.1	259.9	266.8	278.2	293.0	297.6	299.8
37.5°	316.9	318.1	312.4	303.3	297.6	299.8	313.5	335.2	350.0	360.3	362.6
40°	362.6	364.8	358.0	347.7	342.0	351.2	372.8	397.9	424.1	436.7	440.1
42.5°	416.1	419.6	410.4	400.2	396.8	411.6	442.4	483.4	530.1	545.0	550.7
45°	482.3	484.5	473.1	464.0	461.7	488.0	540.4	608.8	682.9	717.1	722.8
47.5°	560.9	559.8	549.5	538.1	540.4	578.0	656.7	749.0	827.7	880.2	891.6
50°	651.0	645.3	637.3	623.6	638.5	693.2	792.4	904.1	1036.4	1083.1	1103.6
52.5°	741.1	730.8	724.0	714.8	741.1	811.8	950.8	1145.8	1345.3	1452.5	1474.2
55°	822.0	814.0	810.6	811.8	852.8	954.3	1136.7	1386.4	1579.0	1668.0	1683.9
57.5°	901.8	897.3	893.8	900.7	965.7	1097.9	1303.1	1536.9	1695.3	1761.5	1772.9
60°	977.1	981.6	979.3	999.9	1078.5	1211.9	1389.8	1620.1	1772.9	1833.3	1845.8
62.5°	1060.3	1063.7	1063.7	1086.5	1150.4	1267.8	1449.1	1718.1	1912.0	2000.9	2014.6
65°	1132.1	1134.4	1139.0	1140.1	1199.4	1316.8	1554.0	1808.2	1981.5	2084.1	2093.2
67.5°	1185.7	1188.0	1182.3	1176.6	1222.2	1328.2	1546.0	1796.8	1950.7	2028.2	2035.1
70°	1229.0	1218.8	1202.8	1174.3	1189.1	1268.9	1479.9	1705.6	1860.7	1930.2	1940.5
72.5°	1234.7	1225.6	1175.4	1111.6	1093.4	1162.9	1363.6	1566.5	1699.9	1766.0	1767.2
75°	1200.5	1176.6	1093.4	997.6	963.4	1029.5	1201.7	1386.4	1493.5	1549.4	1555.1
77.5°	1085.4	1062.6	957.7	848.2	809.5	866.5	1012.4	1161.8	1264.4	1319.1	1322.5
80°	881.3	873.3	777.6	677.2	630.5	663.5	791.2	908.7	991.9	1056.9	1062.6
82.5°	649.9	643.0	570.1	482.3	444.6	472.0	563.2	649.9	727.4	779.8	783.3
85°	405.9	392.2	346.6	285.0	259.9	278.2	338.6	396.8	466.3	507.3	509.6
87.5°	135.7	130.0	111.7	92.3	77.5	80.9	99.2	120.9	176.7	195.0	206.4
90°	30.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1
92.5°	34.8	34.2	34.2	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8
95°	39.4	39.4	39.4	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5
97.5°	44.6	44.6	44.6	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2
100°	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8
102.5°	55.9	55.9	55.9	55.9	55.9	55.9	55.9	56.4	55.9	55.9	55.9
105°	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.9	62.0	62.0	62.0
107.5°	68.6	68.6	69.0	69.0	69.0	69.0	69.0	69.5	69.0	69.0	69.0
110°	75.1	75.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	83.1	83.1	84.0	84.0	84.0	84.0	84.6	84.6	84.0	84.0	84.0
115°	91.1	91.1	92.0	92.0	92.0	92.0	93.0	93.0	92.0	92.0	92.0
117.5°	100.5	100.5	101.0	101.4	101.4	101.4	102.4	102.4	101.4	101.4	101.4
120°	109.9	109.9	109.9	110.8	110.8	110.8	111.8	111.8	110.8	110.8	110.8
122.5°	120.7	120.7	121.2	121.6	121.6	121.6	122.6	122.6	122.1	122.1	121.6
125°	131.5	131.5	132.4	132.4	132.4	132.4	133.4	133.4	133.4	133.4	132.4
127.5°	143.2	143.2	144.2	144.2	144.2	144.2	145.1	145.1	145.1	145.1	144.2
130°	155.0	155.0	155.9	155.9	155.9	155.9	156.8	156.8	156.8	156.8	155.9
132.5°	167.2	167.2	167.6	167.6	167.6	168.1	168.6	168.6	168.6	168.6	168.1
135°	179.4	179.4	179.4	179.4	179.4	180.3	180.3	180.3	180.3	180.3	180.3
137.5°	191.2	190.6	191.2	190.6	191.2	191.6	191.6	191.6	191.6	191.6	191.6
140°	202.9	201.9	202.9	201.9	202.9	202.9	202.9	202.9	202.9	202.9	202.9
142.5°	213.7	213.2	213.7	212.7	213.7	213.7	213.7	213.7	213.7	213.7	213.7
145°	224.5	224.5	224.5	223.5	224.5	224.5	224.5	224.5	224.5	224.5	224.5
147.5°	235.8	235.3	235.8	234.8	235.8	235.8	235.8	235.8	235.8	235.8	235.8
150°	247.0	246.1	247.0	246.1	247.0	247.0	247.0	247.0	247.0	247.0	247.0
152.5°	256.0	255.5	256.4	255.5	256.0	256.0	256.4	256.0	256.0	256.0	256.0
155°	264.9	264.9	265.8	264.9	264.9	264.9	265.8	264.9	264.9	264.9	264.9
157.5°	272.4	272.4	273.3	272.4	272.4	272.4	273.3	272.4	272.4	272.4	272.4
160°	279.9	279.9	280.8	279.9	279.9	279.9	280.8	279.9	279.9	279.9	279.9
162.5°	286.0	286.0	286.9	286.0	286.0	286.0	286.9	286.0	286.0	286.0	286.0
165°	292.1	292.1	293.0	292.1	292.1	292.1	293.0	292.1	292.1	292.1	292.1
167.5°	295.8	295.8	296.8	295.8	295.8	295.8	296.8	295.8	295.8	295.8	295.8
170°	299.6	299.6	300.5	299.6	299.6	299.6	300.5	299.6	299.6	299.6	299.6
172.5°	302.0	302.0	302.8	302.0	302.4	302.0	302.8	302.0	302.0	302.0	302.0
175°	304.3	304.3	305.2	304.3	305.2	304.3	305.2	304.3	304.3	304.3	304.3
177.5°	305.2	305.2	305.7	305.2	305.7	305.2	305.7	305.2	305.2	305.2	305.2
180°	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2

(END OF REPORT)