

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: P821331

Luminaire Tested: **TT-D5-740-24VDC-RW-UPL**

Issue Date: 10/29/2020

Test Information

Test Method: LM-79-08
Report Number: P821331
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G2-2002-677-1) AND
Test Lab: INNOVATION CENTER
Issue Date: 10/29/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-D5-740-24VDC-RW-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
4000K, 70 CRI LEDS AND RECTANGULAR DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

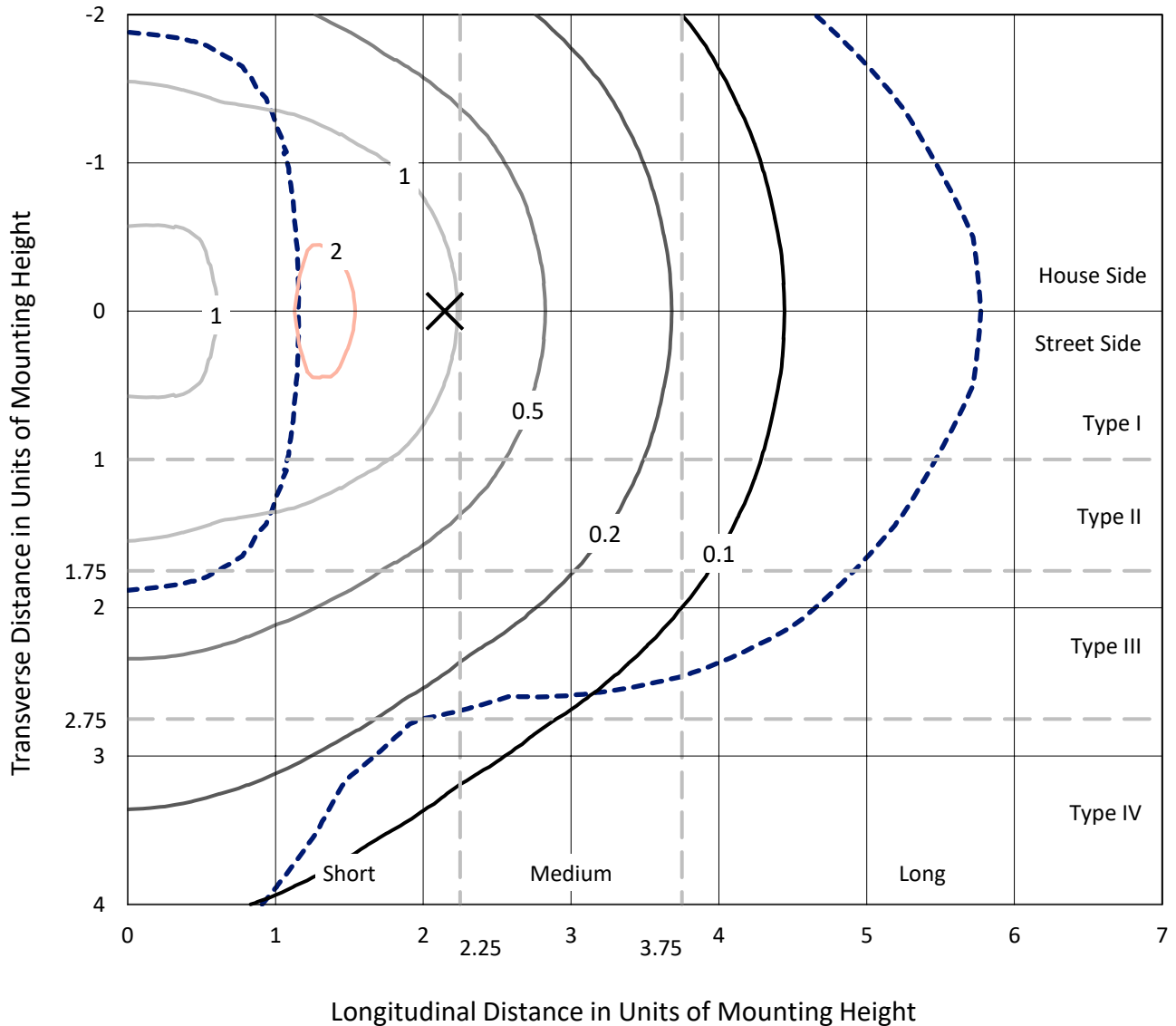
Lumens per Lamp: N/A
Luminaire Lumens: 8504.7 lumens
Efficiency: N/A
Efficacy: 116.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type IV - Short
BUG Rating: B3 - U4 - G3

Input Watts (W): 73
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

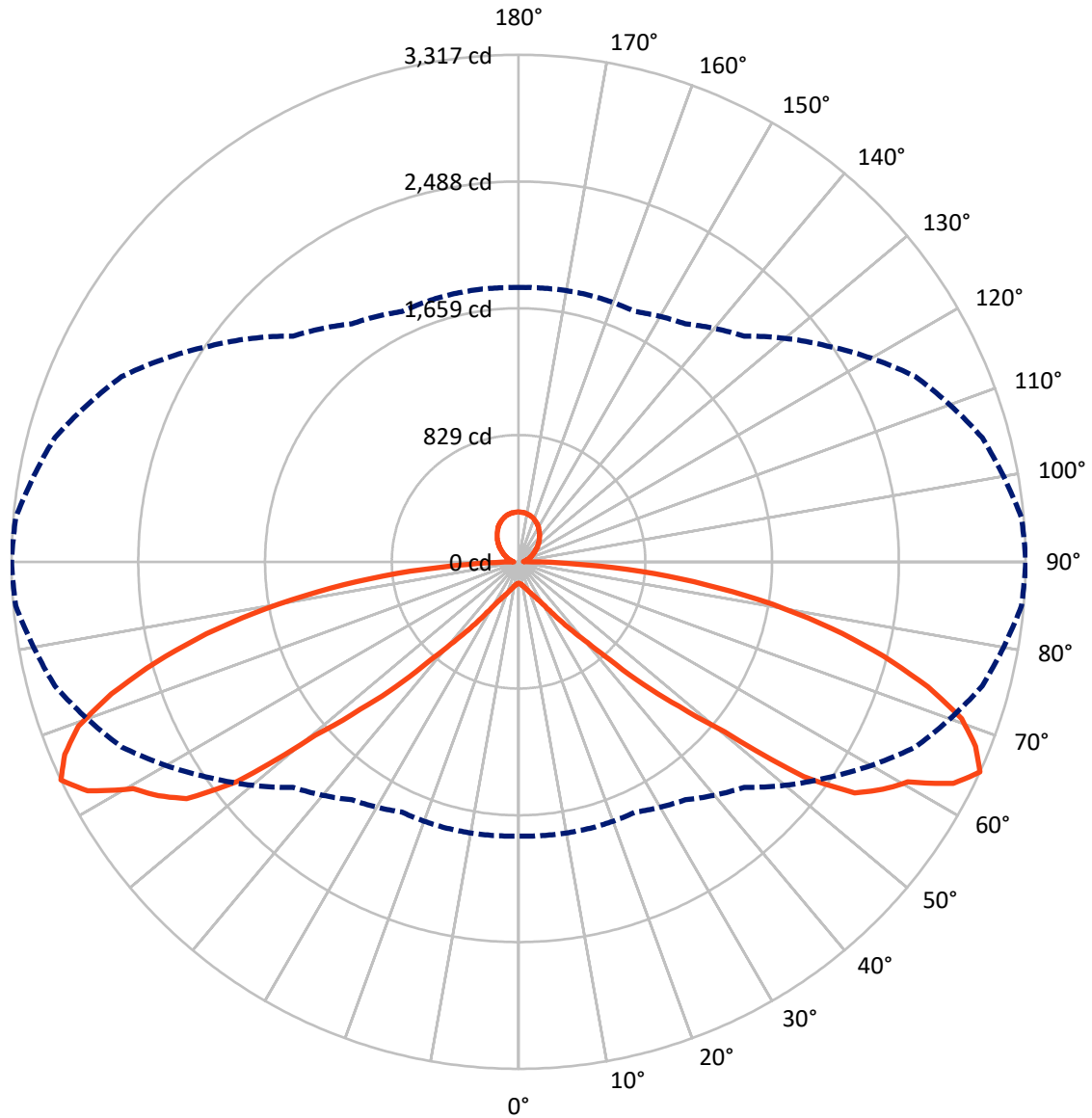
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 2.3 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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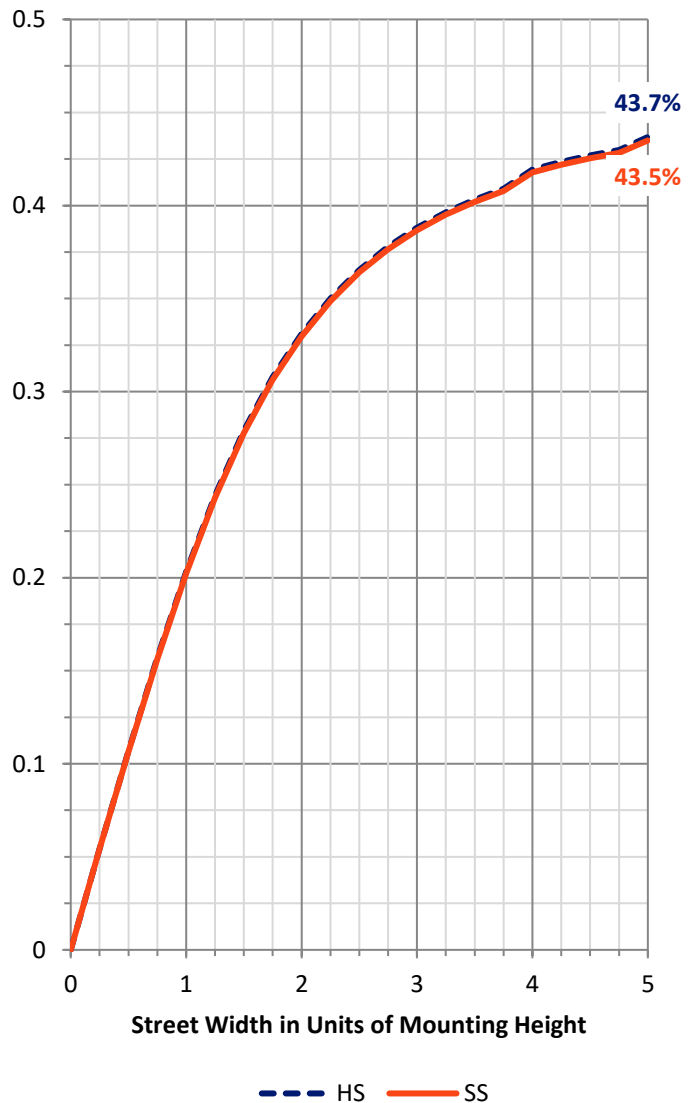
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3809.6	442.7	4252.4
	% Fixture	44.8	5.2	50.0
Street Side	Lumens	3809.6	442.7	4252.4
	% Fixture	44.8	5.2	50.0
Total	Lumens	7619.3	885.5	8504.7
	% Fixture	89.6	10.4	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	14.5	0.2
10°-20°	54.3	0.6
20°-30°	125.5	1.5
30°-40°	283.7	3.3
40°-50°	691.1	8.1
50°-60°	1554.2	18.3
60°-70°	2271.4	26.7
70°-80°	1979.2	23.3
80°-90°	645.4	7.6
90°-100°	45.4	0.5
100°-110°	70.3	0.8
110°-120°	97.7	1.1
120°-130°	126.6	1.5
130°-140°	147.6	1.7
140°-150°	149.5	1.8
150°-160°	129.8	1.5
160°-170°	87.7	1.0
170°-180°	30.8	0.4
0°-90°	7619.3	89.6
0°-180°	8504.7	100.0

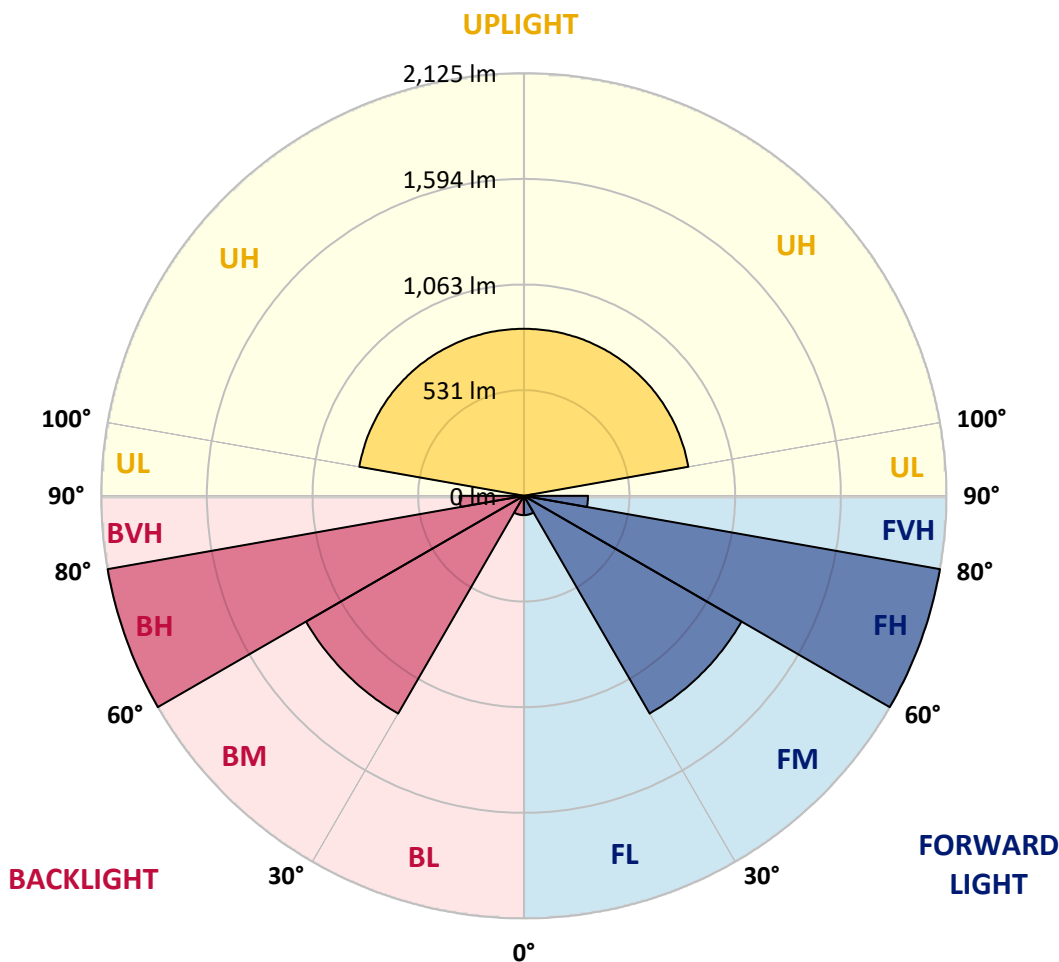


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	97.2	1.1			
FM (30°-60°)	1264.5	14.9			
FH (60°-80°)	2125.3	25.0			G2/5000
FVH (80°-90°)	322.7	3.8			G3/500
BL (0°-30°)	97.2	1.1	B0/110		
BM (30°-60°)	1264.5	14.9	B2/2500		
BH (60°-80°)	2125.3	25.0	B3/2500		G3/2500
BVH (80°-90°)	322.7	3.8			G3/500
UL (90°-100°)	45.4	0.5		U2/50	
UH (100°-180°)	840.1	9.9		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°	139.1	139.1	139.1	139.1	139.1	139.1	139.1	139.1	139.1	139.1	139.1
2.5°	140.9	140.9	142.7	142.7	142.7	142.7	142.7	142.7	142.7	142.7	142.7
5°	146.4	146.4	146.4	146.4	148.2	148.2	146.4	146.4	146.4	146.4	146.4
7.5°	155.4	153.6	155.4	155.4	155.4	153.6	153.6	153.6	151.8	151.8	151.8
10°	164.4	164.4	166.2	164.4	164.4	162.6	162.6	162.6	160.8	160.8	160.8
12.5°	177.1	177.1	177.1	177.1	175.3	175.3	173.5	171.7	169.8	169.8	169.8
15°	193.3	191.5	191.5	189.7	187.9	186.1	184.3	184.3	182.5	182.5	182.5
17.5°	209.6	209.6	207.8	206.0	202.4	200.6	200.6	198.8	196.9	196.9	196.9
20°	229.5	229.5	227.7	224.0	220.4	218.6	216.8	216.8	215.0	215.0	215.0
22.5°	253.0	251.2	247.5	243.9	240.3	238.5	236.7	234.9	234.9	234.9	234.9
25°	278.3	276.4	274.6	269.2	263.8	262.0	258.4	258.4	256.6	258.4	258.4
27.5°	309.0	307.2	303.6	298.1	290.9	287.3	285.5	285.5	287.3	287.3	289.1
30°	346.9	343.3	339.7	332.5	325.2	319.8	319.8	321.6	327.0	330.7	330.7
32.5°	392.1	390.3	384.9	377.6	365.0	361.4	365.0	375.8	383.1	388.5	392.1
35°	444.5	442.7	435.4	422.8	413.8	412.0	422.8	440.9	464.4	471.6	475.2
37.5°	502.3	504.1	495.1	480.6	471.6	475.2	496.9	531.2	554.7	571.0	574.6
40°	574.6	578.2	567.3	551.1	542.1	556.5	590.8	630.6	672.1	692.0	697.4
42.5°	659.5	664.9	650.5	634.2	628.8	652.3	701.1	766.1	840.2	863.7	872.7
45°	764.3	767.9	749.8	735.4	731.8	773.3	856.4	964.9	1082.3	1136.5	1145.5
47.5°	889.0	887.2	870.9	852.8	856.4	916.1	1040.7	1187.1	1311.8	1394.9	1413.0
50°	1031.7	1022.7	1010.0	988.3	1011.8	1098.6	1255.8	1432.8	1642.4	1716.5	1749.0
52.5°	1174.4	1158.2	1147.3	1132.9	1174.4	1286.5	1506.9	1815.9	2132.1	2301.9	2336.3
55°	1302.7	1290.1	1284.7	1286.5	1351.5	1512.3	1801.4	2197.1	2502.5	2643.4	2668.7
57.5°	1429.2	1422.0	1416.6	1427.4	1530.4	1740.0	2065.2	2435.6	2686.8	2791.6	2809.6
60°	1548.5	1555.7	1552.1	1584.6	1709.3	1920.7	2202.5	2567.5	2809.6	2905.4	2925.3
62.5°	1680.4	1685.8	1685.8	1721.9	1823.1	2009.2	2296.5	2722.9	3030.1	3171.0	3192.7
65°	1794.2	1797.8	1805.0	1806.8	1900.8	2086.9	2462.7	2865.7	3140.3	3302.9	3317.4
67.5°	1879.1	1882.7	1873.7	1864.7	1936.9	2105.0	2450.1	2847.6	3091.5	3214.4	3225.2
70°	1947.8	1931.5	1906.2	1861.1	1884.5	2011.0	2345.3	2703.0	2948.8	3059.0	3075.3
72.5°	1956.8	1942.4	1862.9	1761.7	1732.8	1843.0	2161.0	2482.6	2694.0	2798.8	2800.6
75°	1902.6	1864.7	1732.8	1581.0	1526.8	1631.6	1904.4	2197.1	2367.0	2455.5	2464.5
77.5°	1720.1	1684.0	1517.8	1344.3	1282.9	1373.2	1604.5	1841.2	2003.8	2090.5	2095.9
80°	1396.7	1384.0	1232.3	1073.3	999.2	1051.6	1254.0	1440.1	1572.0	1674.9	1684.0
82.5°	1029.9	1019.1	903.4	764.3	704.7	748.0	892.6	1029.9	1152.8	1235.9	1241.3
85°	643.2	621.6	549.3	451.7	412.0	440.9	536.6	628.8	739.0	804.0	807.7
87.5°	215.0	206.0	177.1	146.4	122.9	128.3	157.2	191.5	280.1	309.0	327.0
90°	32.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0
92.5°	37.0	37.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0
95°	42.0	42.0	42.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0
97.5°	48.0	48.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0
100°	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
102.5°	60.0	59.0	60.0	60.0	59.0	59.0	59.0	60.0	60.0	60.0	59.0
105°	66.0	66.0	66.0	66.0	66.0	66.0	66.0	67.0	66.0	66.0	66.0
107.5°	73.0	73.0	73.0	74.0	74.0	74.0	74.0	74.0	73.0	74.0	73.0
110°	80.0	80.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	89.0	89.0	89.0	89.0	89.0	90.0	90.0	90.0	90.0	90.0	89.0
115°	97.0	97.0	98.0	98.0	98.0	98.0	99.0	99.0	98.0	98.0	98.0
117.5°	107.0	107.0	107.0	107.0	107.0	108.0	108.0	108.0	108.0	108.0	107.0
120°	117.0	117.0	117.0	118.0	118.0	118.0	119.0	119.0	118.0	118.0	118.0
122.5°	129.0	128.0	129.0	129.0	129.0	129.0	130.0	130.0	130.0	130.0	129.0
125°	140.0	140.0	141.0	141.0	141.0	141.0	142.0	142.0	142.0	142.0	141.0
127.5°	153.0	153.0	153.0	153.0	153.0	154.0	154.0	154.0	154.0	154.0	154.0
130°	165.0	165.0	166.0	166.0	166.0	166.0	167.0	167.0	167.0	167.0	166.0
132.5°	179.0	178.0	179.0	178.0	178.0	179.0	179.0	180.0	179.0	180.0	179.0
135°	191.0	191.0	191.0	191.0	191.0	192.0	192.0	192.0	192.0	192.0	192.0
137.5°	204.0	203.0	204.0	203.0	203.0	204.0	204.0	204.0	204.0	204.0	204.0
140°	216.0	215.0	216.0	215.0	216.0	216.0	216.0	216.0	216.0	216.0	216.0
142.5°	228.0	227.0	228.0	227.0	227.0	228.0	228.0	228.0	228.0	228.0	228.0
145°	239.0	239.0	239.0	238.0	239.0	239.0	239.0	239.0	239.0	239.0	239.0
147.5°	250.0	249.0	250.0	249.0	249.0	250.0	250.0	250.0	250.0	250.0	250.0
150°	263.0	262.0	263.0	262.0	263.0	263.0	263.0	263.0	263.0	263.0	263.0
152.5°	273.0	273.0	273.0	273.0	273.0	273.0	273.0	273.0	273.0	273.0	273.0
155°	282.0	282.0	283.0	282.0	282.0	282.0	283.0	282.0	282.0	282.0	282.0
157.5°	290.0	290.0	290.0	290.0	290.0	290.0	291.0	291.0	290.0	291.0	290.0
160°	298.0	298.0	299.0	298.0	298.0	298.0	299.0	298.0	298.0	298.0	298.0
162.5°	306.0	305.0	306.0	305.0	306.0	306.0	306.0	306.0	306.0	306.0	306.0
165°	311.0	311.0	312.0	311.0	311.0	311.0	312.0	311.0	311.0	311.0	311.0
167.5°	316.0	315.0	316.0	316.0	316.0	316.0	316.0	316.0	316.0	316.0	316.0
170°	319.0	319.0	320.0	319.0	319.0	319.0	320.0	319.0	319.0	319.0	319.0
172.5°	323.0	323.0	323.0	323.0	323.0	323.0	323.0	323.0	323.0	323.0	323.0
175°	324.0	324.0	325.0	324.0	325.0	324.0	325.0	324.0	324.0	324.0	324.0
177.5°	325.0	325.0	326.0	325.0	325.0	325.0	325.0	325.0	325.0	325.0	325.0
180°	326.0	326.0	326.0	326.0	326.0	326.0	326.0	326.0	326.0	326.0	326.0

(END OF REPORT)