

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: P821317

Luminaire Tested: **TT-D4-740-24VDC-RW-UPL**

Issue Date: 10/29/2020

Test Information

Test Method: LM-79-08
Report Number: P821317
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-D4-740-24VDC-RW-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
4000K, 70 CRI LEDS AND RECTANGULAR DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

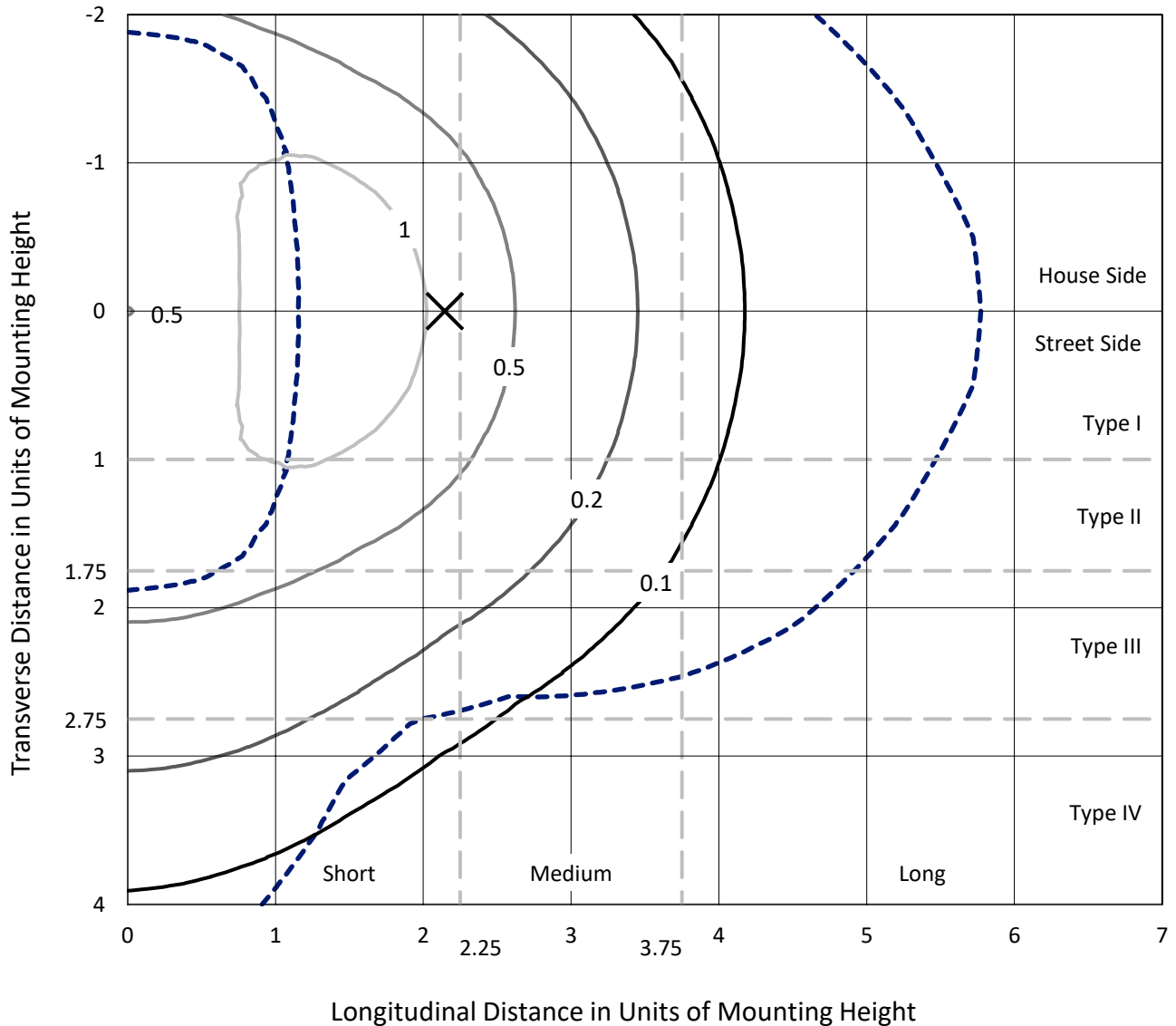
Lumens per Lamp: N/A
Luminaire Lumens: 6939.7 lumens
Efficiency: N/A
Efficacy: 121.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type IV - Short
BUG Rating: B3 - U4 - G3

Input Watts (W): 57
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

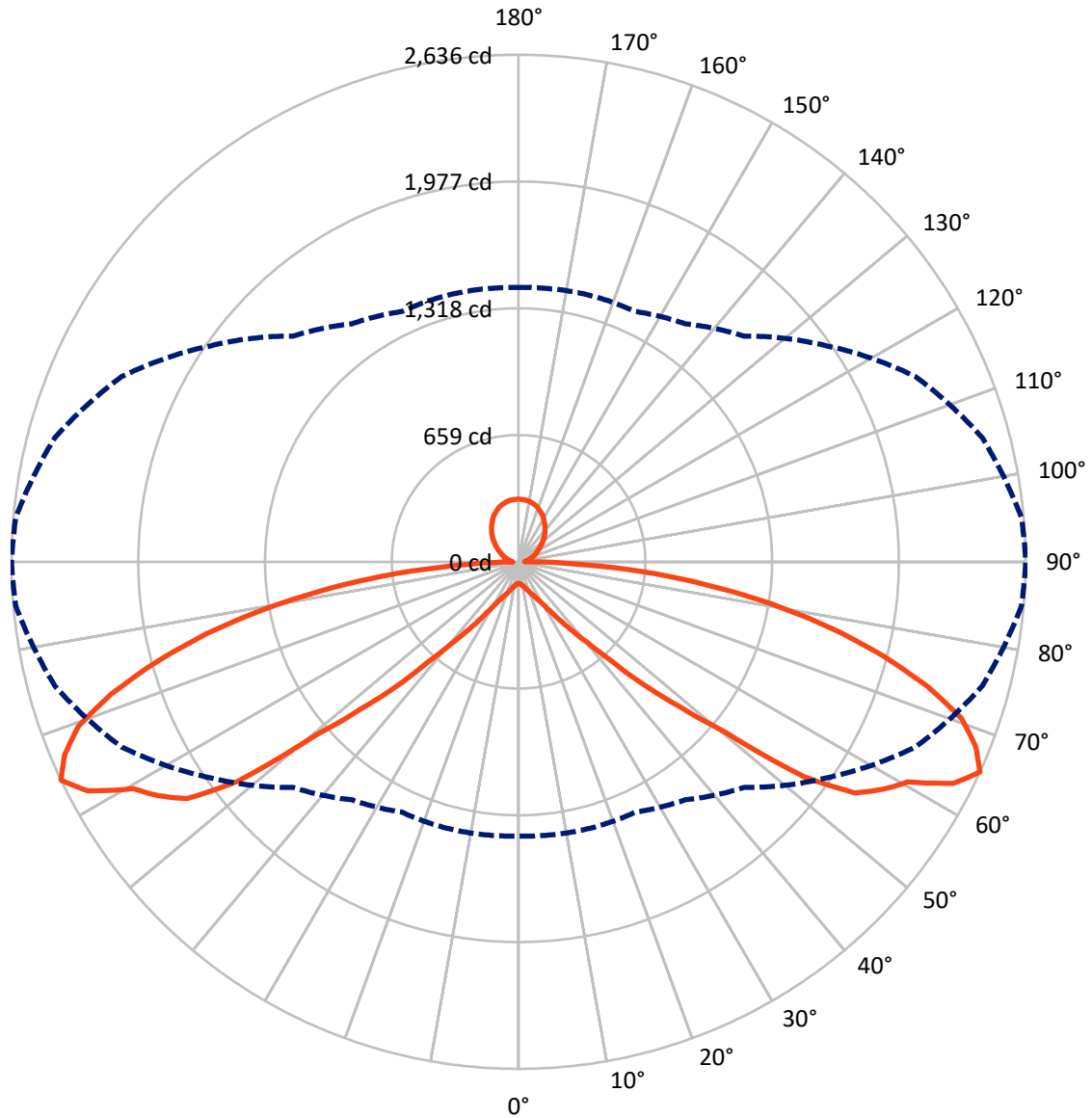
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.8 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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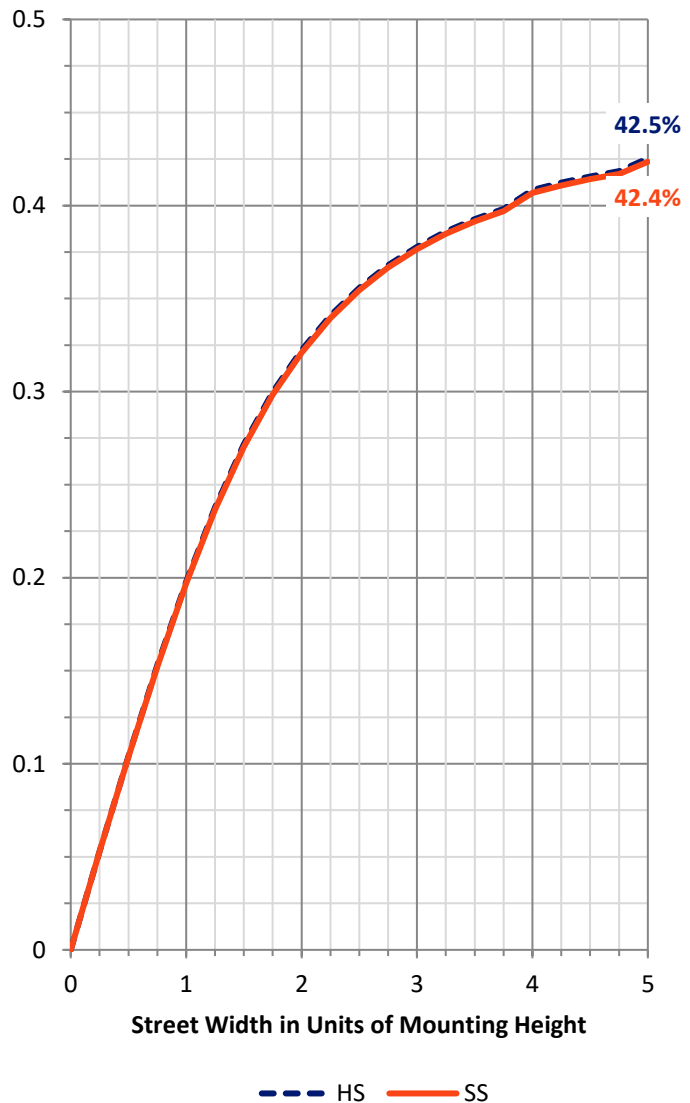
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3027.1	442.7	3469.9
	% Fixture	43.6	6.4	50.0
Street Side	Lumens	3027.1	442.7	3469.9
	% Fixture	43.6	6.4	50.0
Total	Lumens	6054.3	885.5	6939.7
	% Fixture	87.2	12.8	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11.5	0.2
10°-20°	43.1	0.6
20°-30°	99.7	1.4
30°-40°	225.4	3.2
40°-50°	549.1	7.9
50°-60°	1234.8	17.8
60°-70°	1804.6	26.0
70°-80°	1572.4	22.7
80°-90°	513.6	7.4
90°-100°	45.4	0.7
100°-110°	70.3	1.0
110°-120°	97.7	1.4
120°-130°	126.6	1.8
130°-140°	147.6	2.1
140°-150°	149.5	2.2
150°-160°	129.8	1.9
160°-170°	87.7	1.3
170°-180°	30.8	0.4
0°-90°	6054.3	87.2
0°-180°	6939.7	100.0

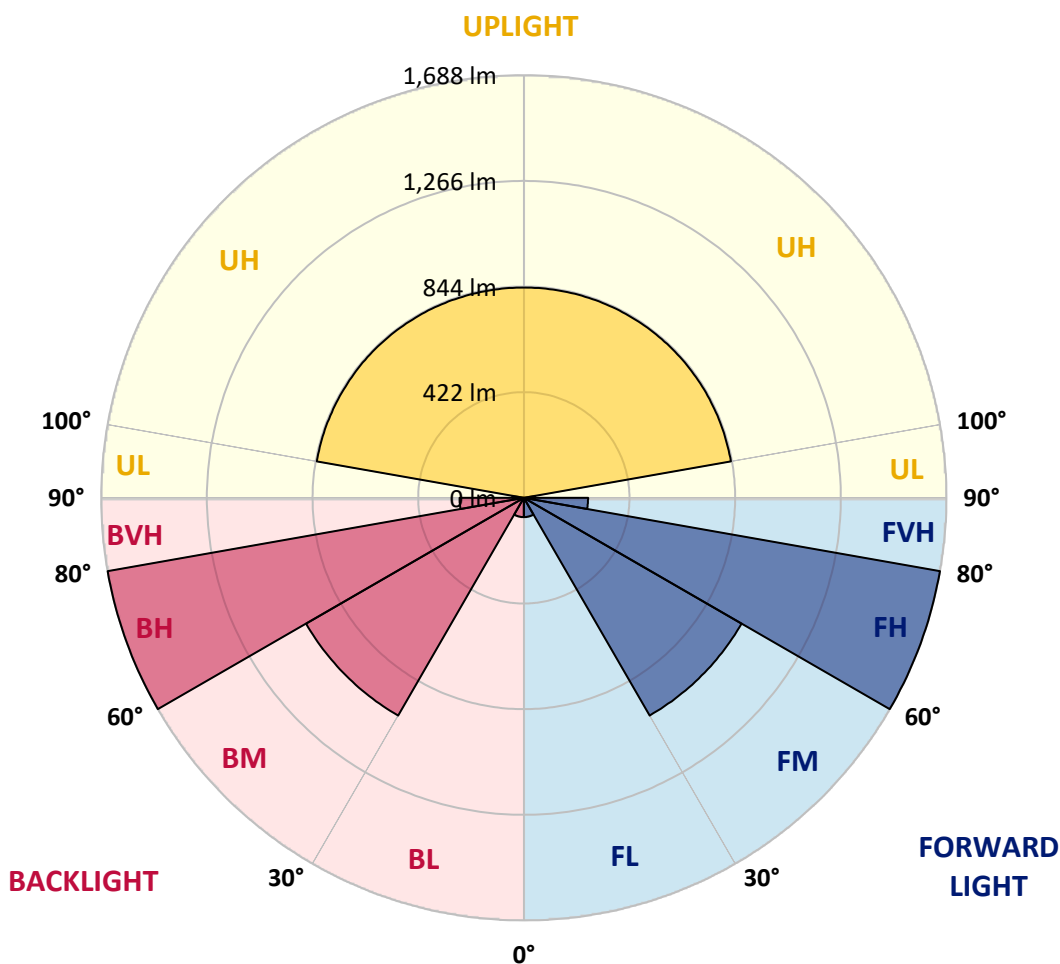


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	77.2	1.1			
FM (30°-60°)	1004.6	14.5			
FH (60°-80°)	1688.5	24.3			G1/1800
FVH (80°-90°)	256.8	3.7			G3/500
BL (0°-30°)	77.2	1.1	B0/110		
BM (30°-60°)	1004.6	14.5	B2/2500		
BH (60°-80°)	1688.5	24.3	B3/2500		G3/2500
BVH (80°-90°)	256.8	3.7			G3/500
UL (90°-100°)	45.4	0.7		U2/50	
UH (100°-180°)	840.1	12.1		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°	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5	110.5
2.5°	112.0	112.0	113.4	113.4	113.4	113.4	113.4	113.4	113.4	113.4	113.4
5°	116.3	116.3	116.3	116.3	117.7	117.7	116.3	116.3	116.3	116.3	116.3
7.5°	123.5	122.0	123.5	123.5	123.5	122.0	122.0	122.0	120.6	120.6	120.6
10°	130.6	130.6	132.1	130.6	130.6	129.2	129.2	129.2	127.8	127.8	127.8
12.5°	140.7	140.7	140.7	140.7	139.2	139.2	137.8	136.4	134.9	134.9	134.9
15°	153.6	152.2	152.2	150.7	149.3	147.9	146.4	146.4	145.0	145.0	145.0
17.5°	166.5	166.5	165.1	163.6	160.8	159.3	159.3	157.9	156.5	156.5	156.5
20°	182.3	182.3	180.9	178.0	175.1	173.7	172.3	172.3	170.8	170.8	170.8
22.5°	201.0	199.5	196.7	193.8	190.9	189.5	188.1	186.6	186.6	186.6	186.6
25°	221.1	219.6	218.2	213.9	209.6	208.1	205.3	205.3	203.8	205.3	205.3
27.5°	245.5	244.0	241.2	236.9	231.1	228.2	226.8	226.8	228.2	228.2	229.7
30°	275.6	272.7	269.9	264.1	258.4	254.1	254.1	255.5	259.8	262.7	262.7
32.5°	311.5	310.1	305.8	300.0	290.0	287.1	290.0	298.6	304.3	308.6	311.5
35°	353.1	351.7	346.0	335.9	328.7	327.3	335.9	350.3	368.9	374.7	377.5
37.5°	399.1	400.5	393.3	381.8	374.7	377.5	394.8	422.0	440.7	453.6	456.5
40°	456.5	459.4	450.8	437.8	430.7	442.1	469.4	501.0	534.0	549.8	554.1
42.5°	524.0	528.3	516.8	503.9	499.6	518.2	557.0	608.7	667.5	686.2	693.4
45°	607.2	610.1	595.7	584.3	581.4	614.4	680.4	766.6	859.9	902.9	910.1
47.5°	706.3	704.8	691.9	677.6	680.4	727.8	826.9	943.1	1042.2	1108.2	1122.6
50°	819.7	812.5	802.5	785.2	803.9	872.8	997.7	1138.4	1304.9	1363.7	1389.6
52.5°	933.1	920.2	911.5	900.1	933.1	1022.1	1197.2	1442.7	1693.9	1828.8	1856.1
55°	1035.0	1025.0	1020.6	1022.1	1073.8	1201.5	1431.2	1745.6	1988.2	2100.2	2120.3
57.5°	1135.5	1129.7	1125.4	1134.1	1215.9	1382.4	1640.8	1935.1	2134.6	2217.9	2232.2
60°	1230.2	1236.0	1233.1	1258.9	1358.0	1525.9	1749.9	2039.9	2232.2	2308.3	2324.1
62.5°	1335.0	1339.3	1339.3	1368.0	1448.4	1596.3	1824.5	2163.3	2407.4	2519.3	2536.5
65°	1425.5	1428.3	1434.1	1435.5	1510.2	1658.0	1956.6	2276.7	2494.9	2624.1	2635.6
67.5°	1492.9	1495.8	1488.6	1481.4	1538.9	1672.4	1946.6	2262.4	2456.2	2553.8	2562.4
70°	1547.5	1534.6	1514.5	1478.6	1497.2	1597.7	1863.3	2147.5	2342.8	2430.3	2443.2
72.5°	1554.7	1543.2	1480.0	1399.6	1376.7	1464.2	1716.9	1972.4	2140.3	2223.6	2225.0
75°	1511.6	1481.4	1376.7	1256.1	1213.0	1296.3	1513.0	1745.6	1880.5	1950.9	1958.0
77.5°	1366.6	1337.9	1205.8	1068.0	1019.2	1091.0	1274.7	1462.8	1592.0	1660.9	1665.2
80°	1109.7	1099.6	979.0	852.7	793.8	835.5	996.2	1144.1	1248.9	1330.7	1337.9
82.5°	818.2	809.6	717.8	607.2	559.8	594.3	709.1	818.2	915.9	981.9	986.2
85°	511.0	493.8	436.4	358.9	327.3	350.3	426.3	499.6	587.1	638.8	641.7
87.5°	170.8	163.6	140.7	116.3	97.6	101.9	124.9	152.2	222.5	245.5	259.8
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)