

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: P833544

Luminaire Tested: **TTN-D2-735-U-WQ-CG-UPL3**

Issue Date: 5/15/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P833544  
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G3-2308-121-4) AND  
Test Lab: INNOVATION CENTER  
Issue Date: 5/15/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: TTN-D2-735-U-WQ-CG-UPL3  
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT  
3500K, 70 CRI LEDS AND WIDE DISTRIBUTION WITH CLEAR GLASS  
Light Source: -  
Ballast/Driver: -

**Summary**

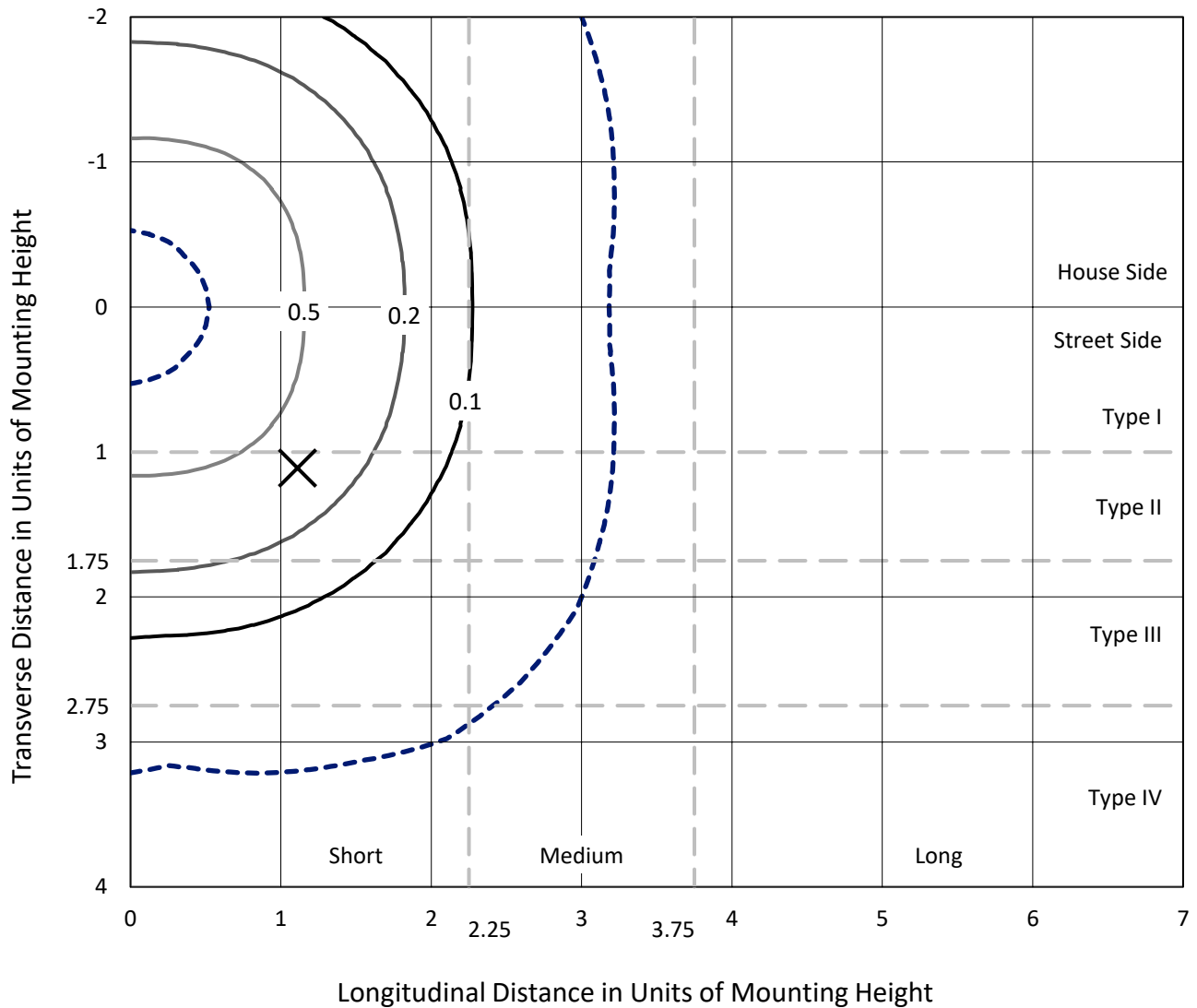
Lumens per Lamp: N/A  
Luminaire Lumens: 5513.7 lumens  
Efficiency: N/A  
Efficacy: 111.4 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')  
IES Classification: Type V - Short  
BUG Rating: B2 - U4 - G1  
  
Input Watts (W): 49.5  
Input Voltage (V): NR  
Input Current (Ain): 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: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

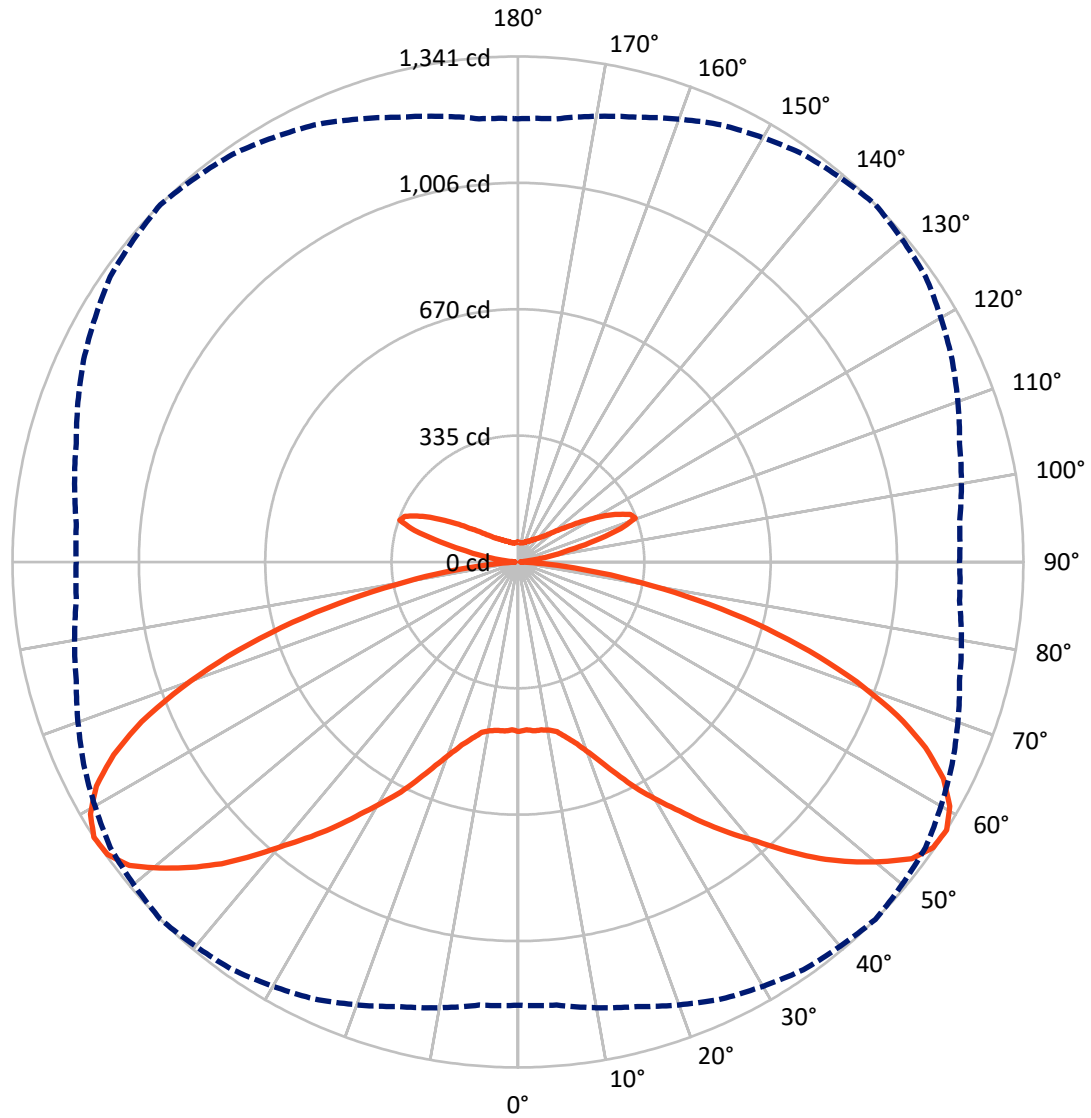
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.8 fc  
 Type V - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

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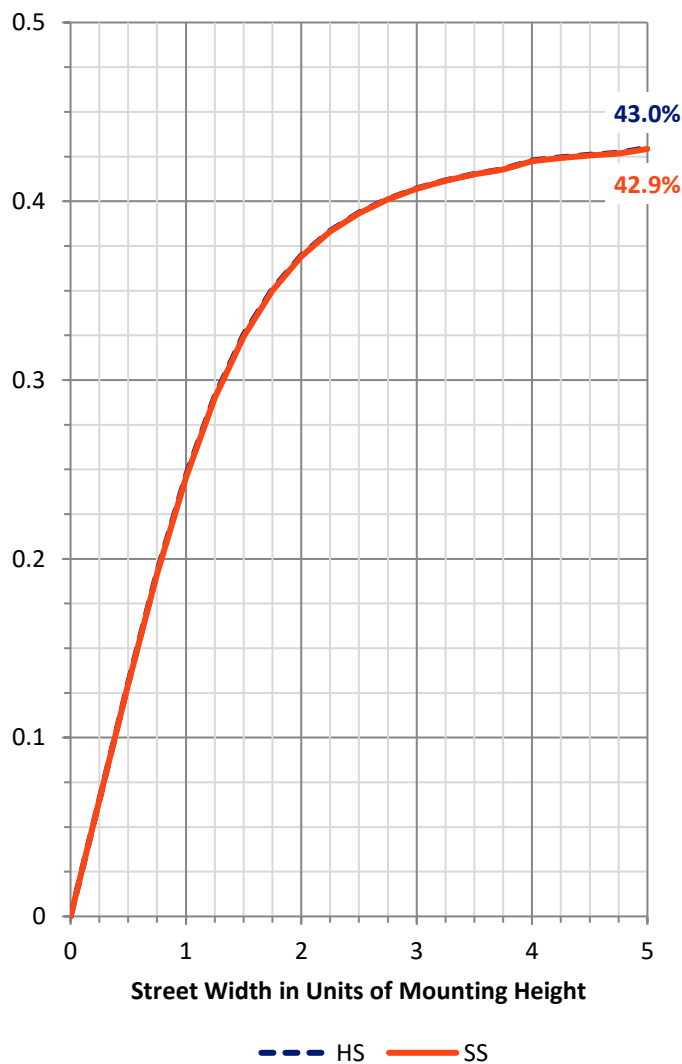
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2380.5	376.3	2756.8
	% Fixture	43.2	6.8	50.0
<b>Street Side</b>	Lumens	2380.5	376.3	2756.8
	% Fixture	43.2	6.8	50.0
<b>Total</b>	Lumens	4761.0	752.7	5513.7
	% Fixture	86.3	13.7	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.9	0.8
10°-20°	138.6	2.5
20°-30°	291.7	5.3
30°-40°	525.9	9.5
40°-50°	836.0	15.2
50°-60°	1115.3	20.2
60°-70°	1077.6	19.5
70°-80°	624.4	11.3
80°-90°	108.6	2.0
90°-100°	16.8	0.3
100°-110°	170.7	3.1
110°-120°	249.6	4.5
120°-130°	144.9	2.6
130°-140°	76.7	1.4
140°-150°	45.6	0.8
150°-160°	28.1	0.5
160°-170°	15.3	0.3
170°-180°	5.0	0.1
0°-90°	4761.0	86.3
0°-180°	5513.7	100.0

**Coefficient of Utilization**



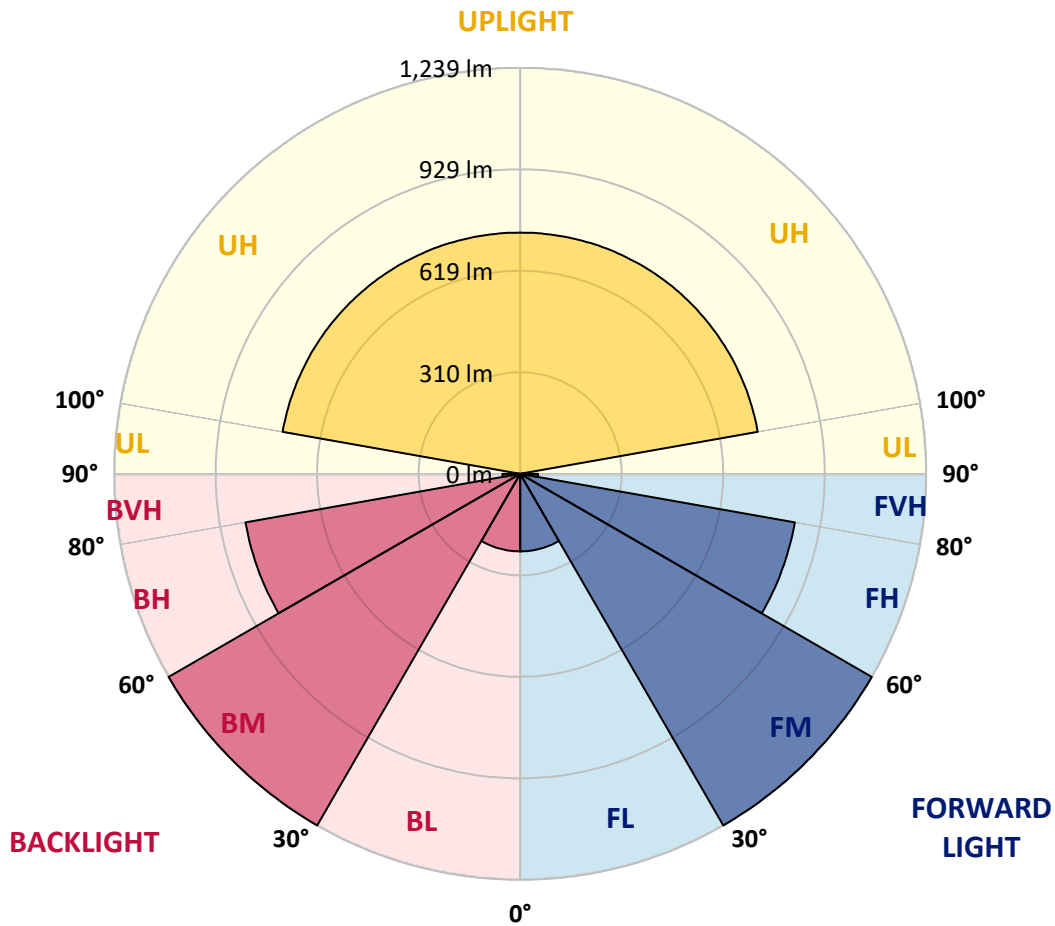
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	236.6	4.3			
FM (30°-60°)	1238.6	22.5			
FH (60°-80°)	851.0	15.4			G1/1800
FVH (80°-90°)	54.3	1.0			G1/100
BL (0°-30°)	236.6	4.3	B1/500		
BM (30°-60°)	1238.6	22.5	B2/2500		
BH (60°-80°)	851.0	15.4	B2/1000		G1/1800
BVH (80°-90°)	54.3	1.0			G1/100
UL (90°-100°)	16.8	0.3		U2/50	
UH (100°-180°)	735.8	13.3		U4/1000	

**BUG Rating: B2-U4-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	449.7	449.7	449.7	449.7	449.7	449.7	449.7	449.7	449.7	449.7	449.7
2.5°	445.5	445.5	445.5	445.5	445.5	445.5	445.5	445.5	445.5	445.5	445.5
5°	449.7	449.7	449.7	449.7	449.7	449.7	449.7	449.7	449.7	449.7	449.7
7.5°	445.5	445.5	449.7	449.7	449.7	449.7	449.7	449.7	449.7	445.5	445.5
10°	449.7	449.7	449.7	453.8	453.8	453.8	453.8	453.8	449.7	449.7	449.7
12.5°	457.9	457.9	462.0	462.0	462.0	462.0	462.0	462.0	462.0	457.9	457.9
15°	478.5	478.5	478.5	482.7	482.7	482.7	482.7	482.7	478.5	478.5	478.5
17.5°	499.2	499.2	503.3	503.3	507.4	507.4	507.4	503.3	503.3	503.3	503.3
20°	528.0	528.0	532.2	532.2	536.3	540.4	540.4	536.3	532.2	532.2	532.2
22.5°	565.2	569.3	569.3	569.3	573.4	581.7	577.6	573.4	569.3	569.3	569.3
25°	610.6	614.7	618.8	618.8	622.9	631.2	631.2	618.8	618.8	618.8	618.8
27.5°	664.2	668.3	672.4	672.4	676.6	684.8	680.7	672.4	672.4	668.3	668.3
30°	713.7	717.8	721.9	726.1	730.2	734.3	734.3	726.1	721.9	717.8	713.7
32.5°	763.2	763.2	771.4	779.7	787.9	787.9	792.1	779.7	771.4	763.2	759.1
35°	812.7	816.8	820.9	833.3	845.7	849.8	845.7	833.3	820.9	812.7	812.7
37.5°	866.3	870.5	874.6	891.1	903.5	911.7	903.5	891.1	874.6	866.3	862.2
40°	924.1	928.2	932.3	953.0	965.3	973.6	961.2	948.8	932.3	924.1	920.0
42.5°	977.7	986.0	994.2	1019.0	1039.6	1047.8	1035.5	1014.8	998.3	977.7	973.6
45°	1043.7	1052.0	1064.3	1089.1	1109.7	1122.1	1105.6	1085.0	1060.2	1043.7	1039.6
47.5°	1097.3	1105.6	1118.0	1151.0	1179.9	1188.1	1171.6	1146.9	1113.8	1093.2	1089.1
50°	1138.6	1146.9	1171.6	1208.7	1241.7	1250.0	1233.5	1200.5	1163.4	1134.5	1130.3
52.5°	1171.6	1179.9	1208.7	1258.2	1295.4	1307.7	1287.1	1250.0	1200.5	1167.5	1163.4
55°	1188.1	1192.2	1229.4	1283.0	1320.1	1336.6	1316.0	1274.7	1221.1	1184.0	1179.9
57.5°	1175.7	1179.9	1221.1	1278.9	1320.1	1340.7	1320.1	1270.6	1212.9	1175.7	1171.6
60°	1151.0	1151.0	1188.1	1254.1	1303.6	1316.0	1295.4	1245.9	1184.0	1146.9	1142.7
62.5°	1105.6	1101.5	1146.9	1204.6	1254.1	1266.5	1250.0	1200.5	1138.6	1101.5	1097.3
65°	1019.0	1010.7	1076.7	1130.3	1175.7	1188.1	1175.7	1130.3	1072.6	1014.8	1006.6
67.5°	915.8	903.5	965.3	1027.2	1068.5	1085.0	1068.5	1031.3	965.3	907.6	903.5
70°	808.6	796.2	845.7	899.3	944.7	953.0	936.5	899.3	837.4	800.3	800.3
72.5°	680.7	668.3	713.7	754.9	800.3	808.6	792.1	759.1	713.7	676.6	672.4
75°	540.4	528.0	569.3	602.3	647.7	651.8	643.6	606.4	569.3	532.2	532.2
77.5°	400.2	387.8	420.8	449.7	486.8	486.8	482.7	453.8	420.8	396.0	396.0
80°	264.0	255.8	284.6	297.0	330.0	330.0	325.9	305.3	280.5	264.0	259.9
82.5°	148.5	140.3	165.0	169.1	193.9	193.9	189.8	173.3	156.8	144.4	144.4
85°	57.8	49.5	66.0	70.1	82.5	82.5	78.4	74.3	61.9	53.6	53.6
87.5°	4.1	4.1	8.3	8.3	12.4	12.4	12.4	8.3	8.3	4.1	4.1
90°	6.4	6.4	7.7	7.7	7.7	7.7	7.7	7.7	7.7	6.4	6.4
92.5°	6.4	6.4	6.4	9.0	10.3	9.0	10.3	7.7	7.7	6.4	6.4
95°	7.7	7.7	9.0	11.6	14.2	15.5	15.5	9.0	9.0	7.7	7.7
97.5°	10.3	11.6	11.6	14.2	23.2	42.5	25.8	12.9	12.9	11.6	10.3
100°	16.7	18.0	18.0	32.2	68.2	91.4	65.7	33.5	24.5	18.0	18.0
102.5°	54.1	56.7	69.5	104.3	154.5	140.4	118.5	112.0	77.3	61.8	59.2
105°	137.8	136.5	146.8	173.8	216.3	212.5	195.7	177.7	153.2	141.6	141.6
107.5°	181.6	181.6	190.6	213.8	245.9	287.1	291.0	230.5	202.2	189.3	188.0
110°	204.7	204.7	212.5	231.8	274.3	332.2	329.6	284.6	249.8	233.1	230.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	209.9	211.2	221.5	251.1	297.5	323.2	311.6	293.6	278.1	265.3	262.7
115°	217.6	217.6	229.2	257.5	283.3	293.6	280.7	266.5	256.2	251.1	253.7
117.5°	215.0	218.9	221.5	236.9	253.7	261.4	255.0	235.6	227.9	225.3	221.5
120°	199.6	199.6	202.2	209.9	218.9	222.8	220.2	207.3	200.9	199.6	197.0
122.5°	177.7	179.0	177.7	181.6	188.0	191.9	189.3	179.0	176.4	176.4	173.8
125°	155.8	155.8	154.5	157.1	161.0	159.7	161.0	155.8	154.5	154.5	153.2
127.5°	140.4	139.1	136.5	137.8	139.1	139.1	140.4	135.2	136.5	137.8	136.5
130°	124.9	124.9	122.3	122.3	122.3	119.8	122.3	119.8	121.0	122.3	123.6
132.5°	110.7	110.7	106.9	105.6	105.6	105.6	106.9	105.6	108.2	110.7	110.7
135°	99.2	99.2	95.3	96.6	96.6	95.3	96.6	95.3	97.9	99.2	99.2
137.5°	90.1	90.1	87.6	87.6	87.6	86.3	87.6	87.6	88.8	91.4	92.7
140°	82.4	82.4	81.1	81.1	79.8	81.1	81.1	81.1	82.4	83.7	83.7
142.5°	78.5	77.3	76.0	74.7	76.0	76.0	76.0	74.7	76.0	78.5	78.5
145°	72.1	72.1	70.8	70.8	70.8	72.1	70.8	70.8	72.1	72.1	73.4
147.5°	68.2	68.2	67.0	68.2	68.2	68.2	68.2	67.0	68.2	68.2	69.5
150°	67.0	65.7	64.4	65.7	65.7	64.4	64.4	64.4	64.4	65.7	65.7
152.5°	63.1	63.1	61.8	63.1	61.8	61.8	61.8	61.8	61.8	63.1	64.4
155°	60.5	60.5	59.2	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5
157.5°	57.9	59.2	57.9	57.9	57.9	57.9	57.9	57.9	57.9	59.2	59.2
160°	56.7	56.7	56.7	56.7	55.4	55.4	55.4	56.7	56.7	56.7	57.9
162.5°	55.4	55.4	55.4	55.4	54.1	54.1	54.1	54.1	55.4	55.4	56.7
165°	55.4	54.1	54.1	54.1	52.8	52.8	52.8	52.8	54.1	55.4	54.1
167.5°	52.8	52.8	52.8	52.8	52.8	51.5	51.5	52.8	52.8	52.8	54.1
170°	52.8	52.8	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	52.8
172.5°	52.8	52.8	52.8	52.8	51.5	51.5	51.5	51.5	51.5	52.8	52.8
175°	52.8	52.8	52.8	52.8	51.5	51.5	51.5	52.8	52.8	52.8	51.5
177.5°	52.8	52.8	52.8	52.8	51.5	52.8	52.8	52.8	52.8	52.8	52.8
180°	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8	52.8

(END OF REPORT)