

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: P833694

Luminaire Tested: **TTN-D2-830-U-WQ-CG-UPL3**

Issue Date: 5/15/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P833694  
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-D2-830-U-WQ-CG-UPL3  
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT  
3000K, 80 CRI LEDS AND WIDE DISTRIBUTION WITH CLEAR GLASS  
Light Source: -  
Ballast/Driver: -

**Summary**

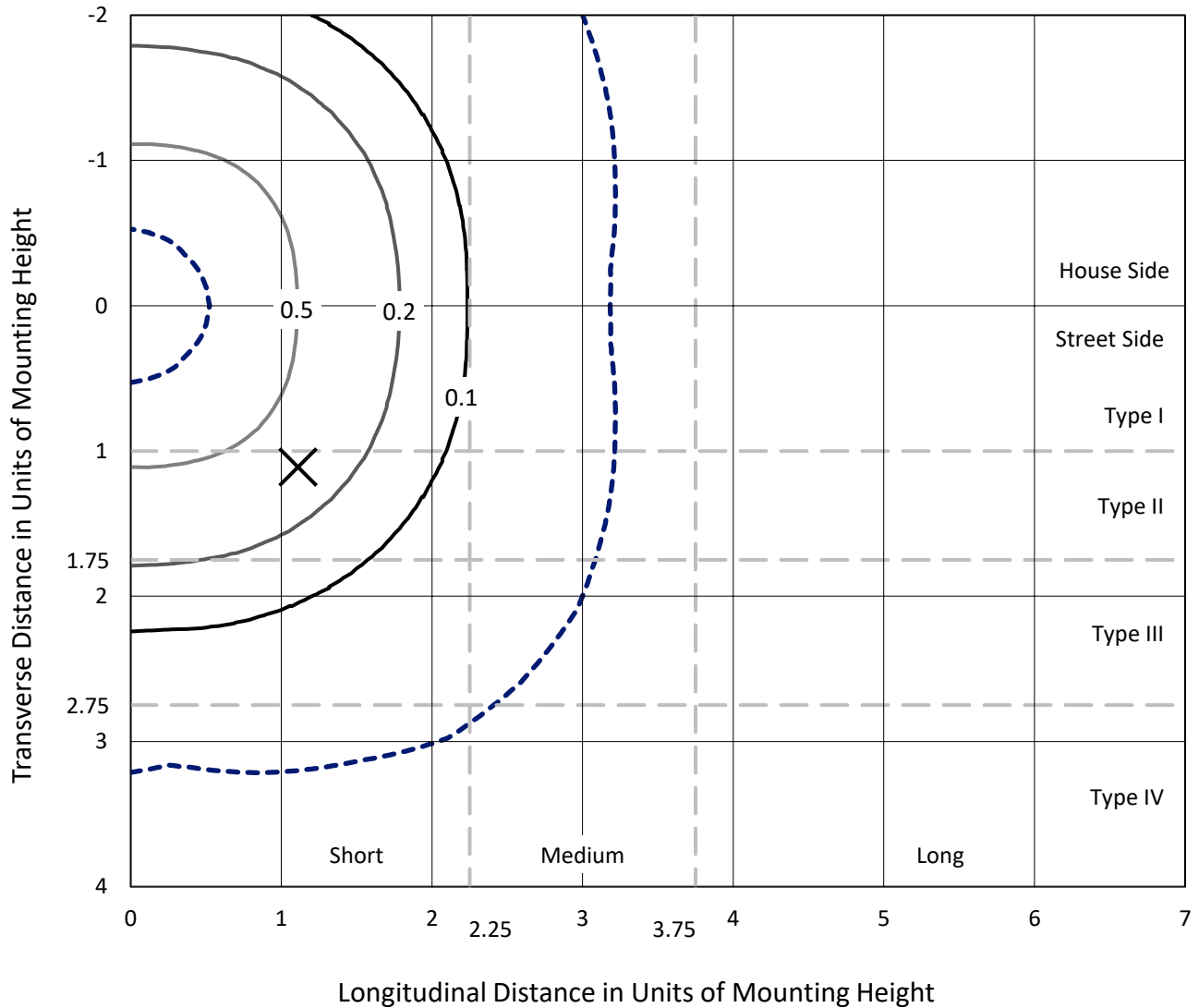
Lumens per Lamp: N/A  
Luminaire Lumens: 5239.7 lumens  
Efficiency: N/A  
Efficacy: 105.9 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')  
IES Classification: Type V - Short  
BUG Rating: B2 - U4 - G1  
  
Input Watts (W): 49.5  
Input Voltage (V): NR  
Input Current (Ain): 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

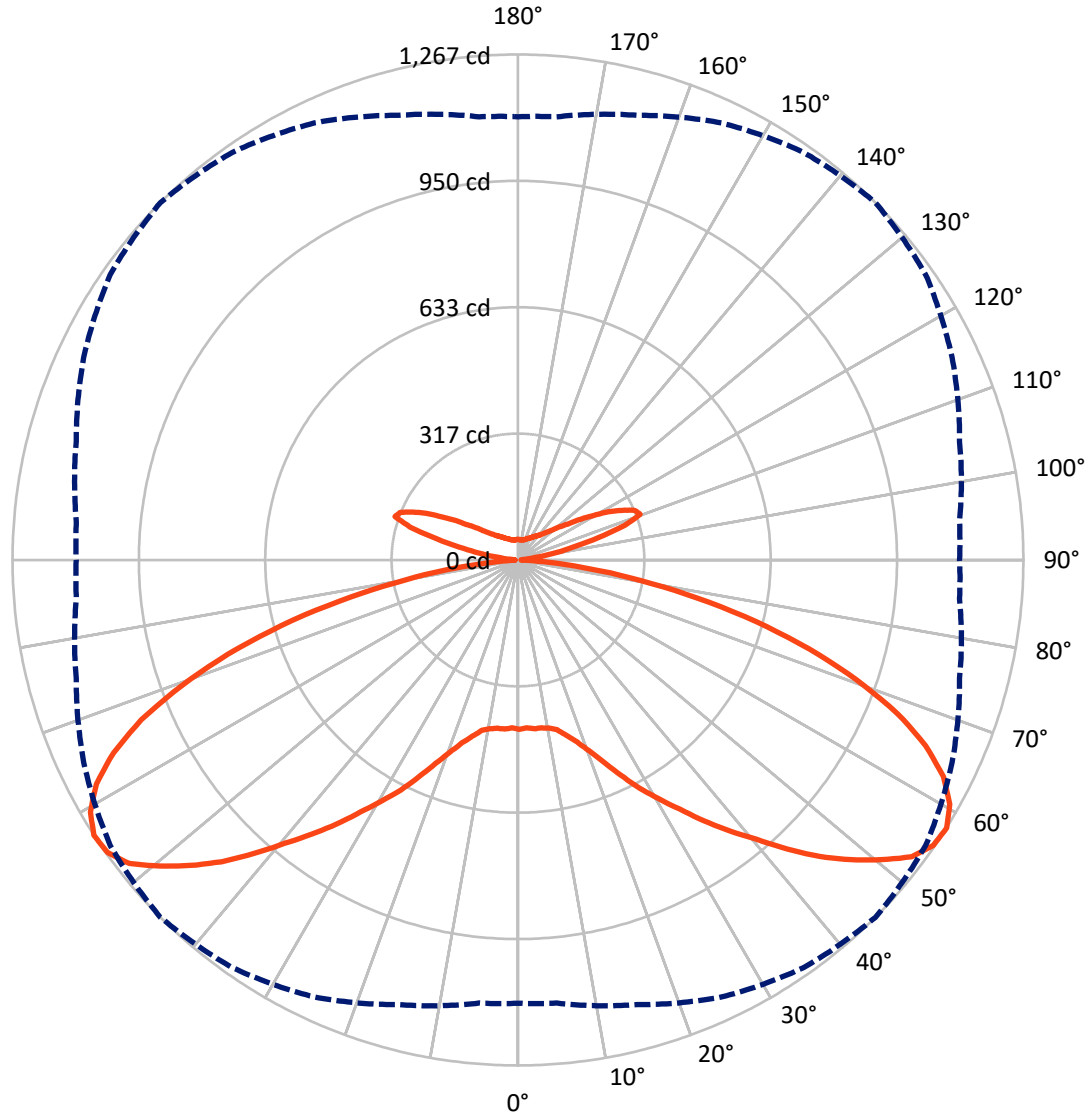
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.7 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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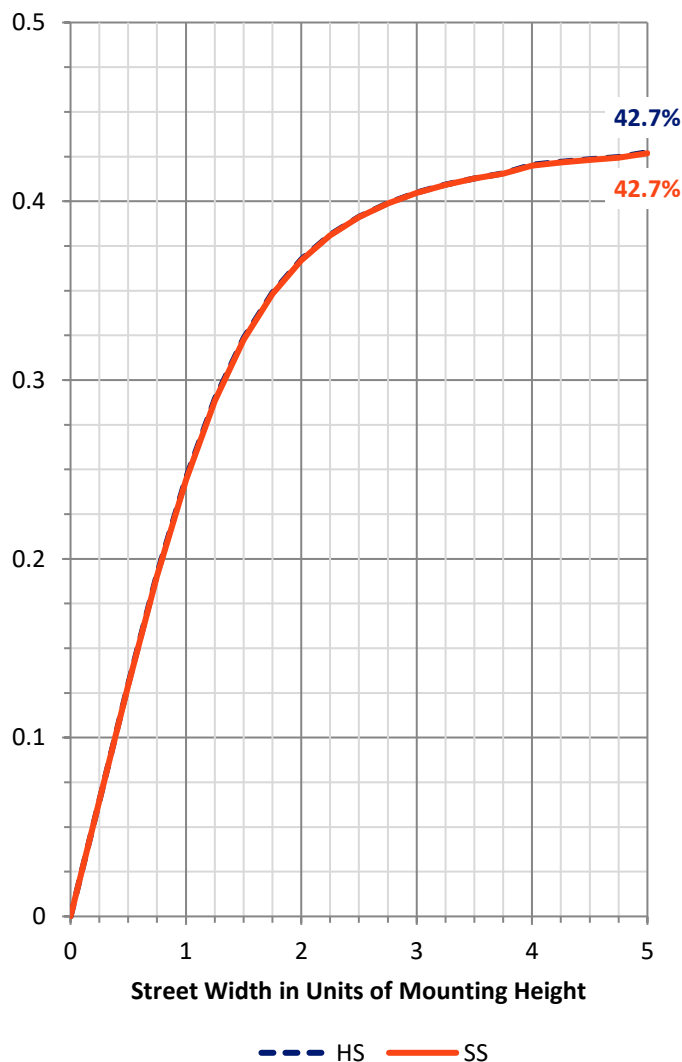
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2249.5	370.3	2619.8
	% Fixture	42.9	7.1	50.0
<b>Street Side</b>	Lumens	2249.5	370.3	2619.8
	% Fixture	42.9	7.1	50.0
<b>Total</b>	Lumens	4499.0	740.7	5239.7
	% Fixture	85.9	14.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.5	0.8
10°-20°	131.0	2.5
20°-30°	275.6	5.3
30°-40°	496.9	9.5
40°-50°	789.9	15.1
50°-60°	1053.9	20.1
60°-70°	1018.3	19.4
70°-80°	590.1	11.3
80°-90°	102.7	2.0
90°-100°	16.5	0.3
100°-110°	168.0	3.2
110°-120°	245.6	4.7
120°-130°	142.5	2.7
130°-140°	75.5	1.4
140°-150°	44.9	0.9
150°-160°	27.6	0.5
160°-170°	15.1	0.3
170°-180°	4.9	0.1
0°-90°	4499.0	85.9
0°-180°	5239.7	100.0

**Coefficient of Utilization**

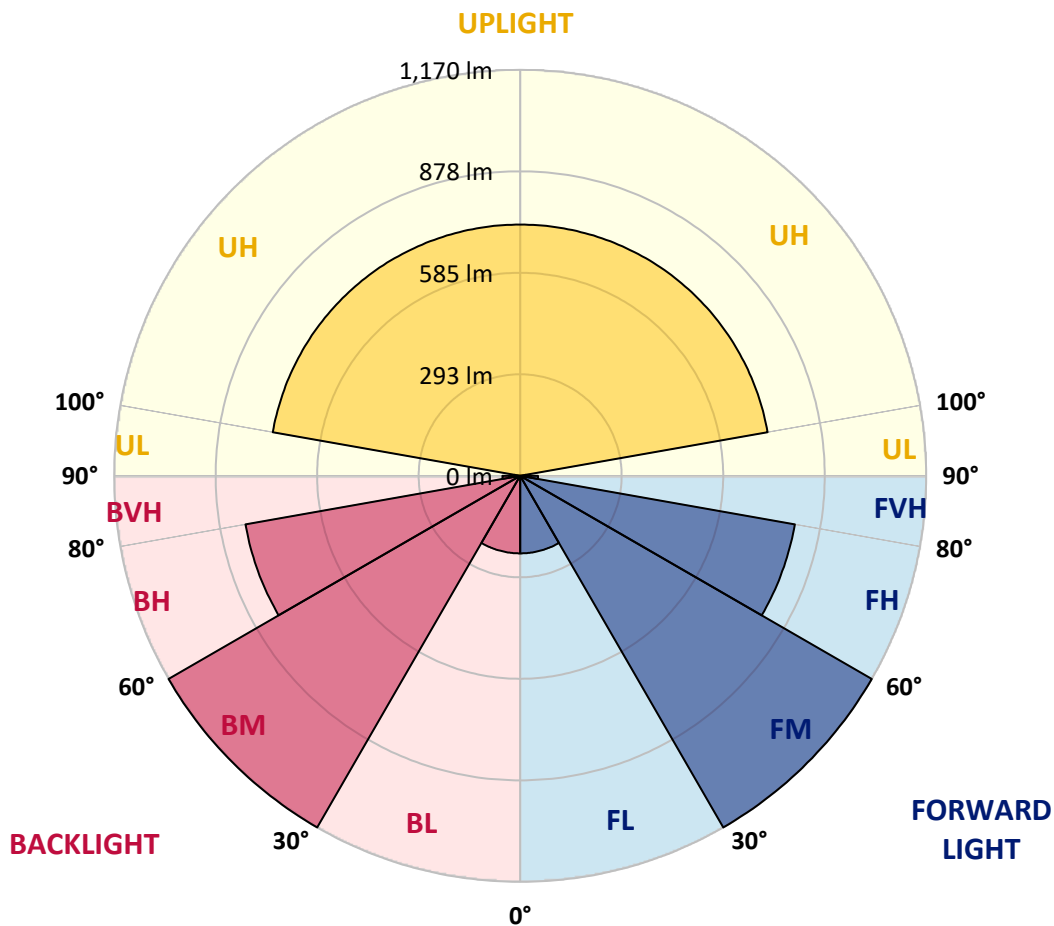


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	223.6	4.3			
FM (30°-60°)	1170.4	22.3			
FH (60°-80°)	804.2	15.3			G1/1800
FVH (80°-90°)	51.4	1.0			G1/100
BL (0°-30°)	223.6	4.3	B1/500		
BM (30°-60°)	1170.4	22.3	B2/2500		
BH (60°-80°)	804.2	15.3	B2/1000		G1/1800
BVH (80°-90°)	51.4	1.0			G1/100
UL (90°-100°)	16.5	0.3		U2/50	
UH (100°-180°)	724.2	13.8		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°	424.9	424.9	424.9	424.9	424.9	424.9	424.9	424.9	424.9	424.9	424.9
2.5°	421.0	421.0	421.0	421.0	421.0	421.0	421.0	421.0	421.0	421.0	421.0
5°	424.9	424.9	424.9	424.9	424.9	424.9	424.9	424.9	424.9	424.9	424.9
7.5°	421.0	421.0	424.9	424.9	424.9	424.9	424.9	424.9	424.9	421.0	421.0
10°	424.9	424.9	424.9	428.8	428.8	428.8	428.8	428.8	424.9	424.9	424.9
12.5°	432.7	432.7	436.6	436.6	436.6	436.6	436.6	436.6	436.6	432.7	432.7
15°	452.2	452.2	452.2	456.1	456.1	456.1	456.1	456.1	452.2	452.2	452.2
17.5°	471.7	471.7	475.6	475.6	479.5	479.5	479.5	475.6	475.6	475.6	475.6
20°	499.0	499.0	502.9	502.9	506.8	510.7	510.7	506.8	502.9	502.9	502.9
22.5°	534.1	538.0	538.0	538.0	541.9	549.7	545.8	541.9	538.0	538.0	538.0
25°	576.9	580.8	584.7	584.7	588.6	596.4	596.4	584.7	584.7	584.7	584.7
27.5°	627.6	631.5	635.4	635.4	639.3	647.1	643.2	635.4	635.4	631.5	631.5
30°	674.4	678.3	682.2	686.1	690.0	693.9	693.9	686.1	682.2	678.3	674.4
32.5°	721.2	721.2	729.0	736.8	744.6	744.6	748.5	736.8	729.0	721.2	717.3
35°	768.0	771.9	775.8	787.5	799.1	803.0	799.1	787.5	775.8	768.0	768.0
37.5°	818.6	822.5	826.4	842.0	853.7	861.5	853.7	842.0	826.4	818.6	814.7
40°	873.2	877.1	881.0	900.5	912.2	920.0	908.3	896.6	881.0	873.2	869.3
42.5°	923.9	931.7	939.5	962.9	982.4	990.2	978.5	959.0	943.4	923.9	920.0
45°	986.3	994.1	1005.8	1029.1	1048.6	1060.3	1044.7	1025.3	1001.9	986.3	982.4
47.5°	1036.9	1044.7	1056.4	1087.6	1114.9	1122.7	1107.1	1083.7	1052.5	1033.0	1029.1
50°	1075.9	1083.7	1107.1	1142.2	1173.4	1181.2	1165.6	1134.4	1099.3	1072.0	1068.1
52.5°	1107.1	1114.9	1142.2	1189.0	1224.1	1235.8	1216.3	1181.2	1134.4	1103.2	1099.3
55°	1122.7	1126.6	1161.7	1212.4	1247.5	1263.0	1243.6	1204.6	1153.9	1118.8	1114.9
57.5°	1111.0	1114.9	1153.9	1208.5	1247.5	1266.9	1247.5	1200.7	1146.1	1111.0	1107.1
60°	1087.6	1087.6	1122.7	1185.1	1231.9	1243.6	1224.1	1177.3	1118.8	1083.7	1079.8
62.5°	1044.7	1040.8	1083.7	1138.3	1185.1	1196.8	1181.2	1134.4	1075.9	1040.8	1036.9
65°	962.9	955.1	1017.5	1068.1	1111.0	1122.7	1111.0	1068.1	1013.6	959.0	951.2
67.5°	865.4	853.7	912.2	970.7	1009.7	1025.3	1009.7	974.6	912.2	857.6	853.7
70°	764.1	752.4	799.1	849.8	892.7	900.5	884.9	849.8	791.4	756.3	756.3
72.5°	643.2	631.5	674.4	713.4	756.3	764.1	748.5	717.3	674.4	639.3	635.4
75°	510.7	499.0	538.0	569.2	612.0	615.9	608.1	573.0	538.0	502.9	502.9
77.5°	378.1	366.4	397.6	424.9	460.0	460.0	456.1	428.8	397.6	374.2	374.2
80°	249.5	241.7	269.0	280.7	311.9	311.9	308.0	288.5	265.1	249.5	245.6
82.5°	140.3	132.5	155.9	159.8	183.2	183.2	179.3	163.7	148.1	136.4	136.4
85°	54.6	46.8	62.4	66.3	78.0	78.0	74.1	70.2	58.5	50.7	50.7
87.5°	3.9	3.9	7.8	7.8	11.7	11.7	11.7	7.8	7.8	3.9	3.9
90°	6.3	6.3	7.6	7.6	7.6	7.6	7.6	7.6	7.6	6.3	6.3
92.5°	6.3	6.3	6.3	8.9	10.1	8.9	10.1	7.6	7.6	6.3	6.3
95°	7.6	7.6	8.9	11.4	13.9	15.2	15.2	8.9	8.9	7.6	7.6
97.5°	10.1	11.4	11.4	13.9	22.8	41.8	25.3	12.7	12.7	11.4	10.1
100°	16.5	17.7	17.7	31.7	67.2	90.0	64.6	32.9	24.1	17.7	17.7
102.5°	53.2	55.8	68.4	102.6	152.1	138.1	116.6	110.2	76.0	60.8	58.3
105°	135.6	134.3	144.5	171.1	212.9	209.1	192.6	174.9	150.8	139.4	139.4
107.5°	178.7	178.7	187.5	210.4	242.0	282.6	286.4	226.8	198.9	186.3	185.0
110°	201.5	201.5	209.1	228.1	269.9	326.9	324.4	280.0	245.8	229.4	226.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	206.5	207.8	218.0	247.1	292.7	318.1	306.7	288.9	273.7	261.0	258.5
115°	214.2	214.2	225.6	253.4	278.8	288.9	276.2	262.3	252.2	247.1	249.6
117.5°	211.6	215.4	218.0	233.2	249.6	257.2	250.9	231.9	224.3	221.8	218.0
120°	196.4	196.4	198.9	206.5	215.4	219.2	216.7	204.0	197.7	196.4	193.9
122.5°	174.9	176.1	174.9	178.7	185.0	188.8	186.3	176.1	173.6	173.6	171.1
125°	153.3	153.3	152.1	154.6	158.4	157.1	158.4	153.3	152.1	152.1	150.8
127.5°	138.1	136.9	134.3	135.6	136.9	136.9	138.1	133.1	134.3	135.6	134.3
130°	122.9	122.9	120.4	120.4	120.4	117.8	120.4	117.8	119.1	120.4	121.6
132.5°	109.0	109.0	105.2	103.9	103.9	103.9	105.2	103.9	106.4	109.0	109.0
135°	97.6	97.6	93.8	95.0	95.0	93.8	95.0	93.8	96.3	97.6	97.6
137.5°	88.7	88.7	86.2	86.2	86.2	84.9	86.2	86.2	87.4	90.0	91.2
140°	81.1	81.1	79.8	79.8	78.6	79.8	79.8	79.8	81.1	82.4	82.4
142.5°	77.3	76.0	74.8	73.5	74.8	74.8	74.8	73.5	74.8	77.3	77.3
145°	71.0	71.0	69.7	69.7	69.7	71.0	69.7	69.7	71.0	71.0	72.2
147.5°	67.2	67.2	65.9	67.2	67.2	67.2	67.2	65.9	67.2	67.2	68.4
150°	65.9	64.6	63.4	64.6	64.6	63.4	63.4	63.4	63.4	64.6	64.6
152.5°	62.1	62.1	60.8	62.1	60.8	60.8	60.8	60.8	60.8	62.1	63.4
155°	59.6	59.6	58.3	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6
157.5°	57.0	58.3	57.0	57.0	57.0	57.0	57.0	57.0	57.0	58.3	58.3
160°	55.8	55.8	55.8	55.8	54.5	54.5	54.5	55.8	55.8	55.8	57.0
162.5°	54.5	54.5	54.5	54.5	53.2	53.2	53.2	53.2	54.5	54.5	55.8
165°	54.5	53.2	53.2	53.2	52.0	52.0	52.0	52.0	53.2	54.5	53.2
167.5°	52.0	52.0	52.0	52.0	52.0	50.7	50.7	52.0	52.0	52.0	53.2
170°	52.0	52.0	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7	52.0
172.5°	52.0	52.0	52.0	52.0	50.7	50.7	50.7	50.7	50.7	52.0	52.0
175°	52.0	52.0	52.0	52.0	50.7	50.7	50.7	52.0	52.0	52.0	50.7
177.5°	52.0	52.0	52.0	52.0	50.7	52.0	52.0	52.0	52.0	52.0	52.0
180°	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0

(END OF REPORT)