

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: P833700

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

Issue Date: 5/15/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P833700  
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-UPL3  
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT  
3000K, 80 CRI LEDS AND WIDE DISTRIBUTION  
Light Source: -  
Ballast/Driver: -

**Summary**

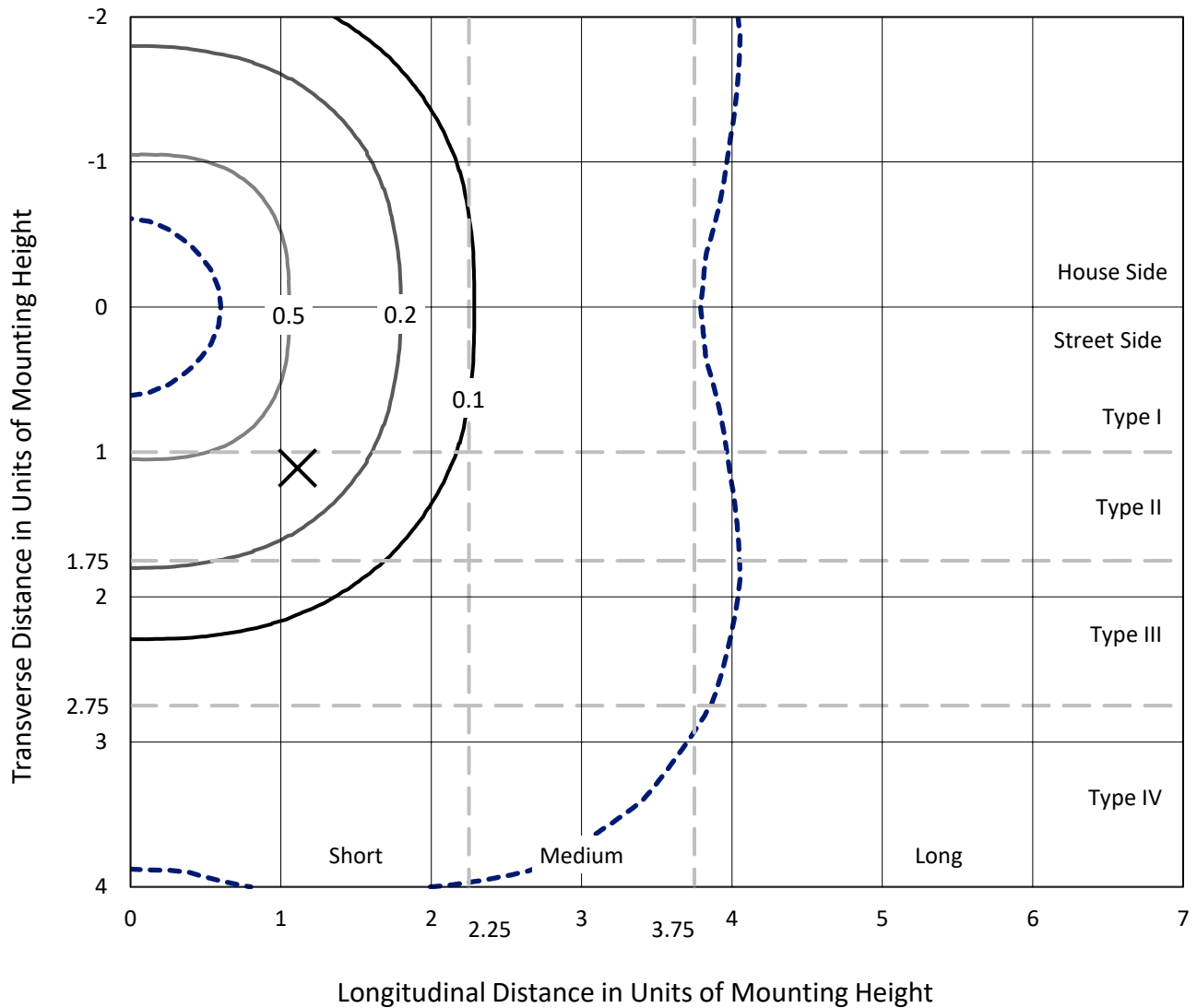
Lumens per Lamp: N/A  
Luminaire Lumens: 5477.7 lumens  
Efficiency: N/A  
Efficacy: 110.7 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')  
IES Classification: Type V - Short  
BUG Rating: B2 - U4 - G2  
  
Input Watts (W): 49.5  
Input Voltage (V): NR  
Input Current (Ain): 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



REPORT NUMBER: P833700  
 CATALOG NUMBER: TTN-D2-830-U-WQ-UPL3

### Iso-Footcandle Lines of Horizontal Illumination

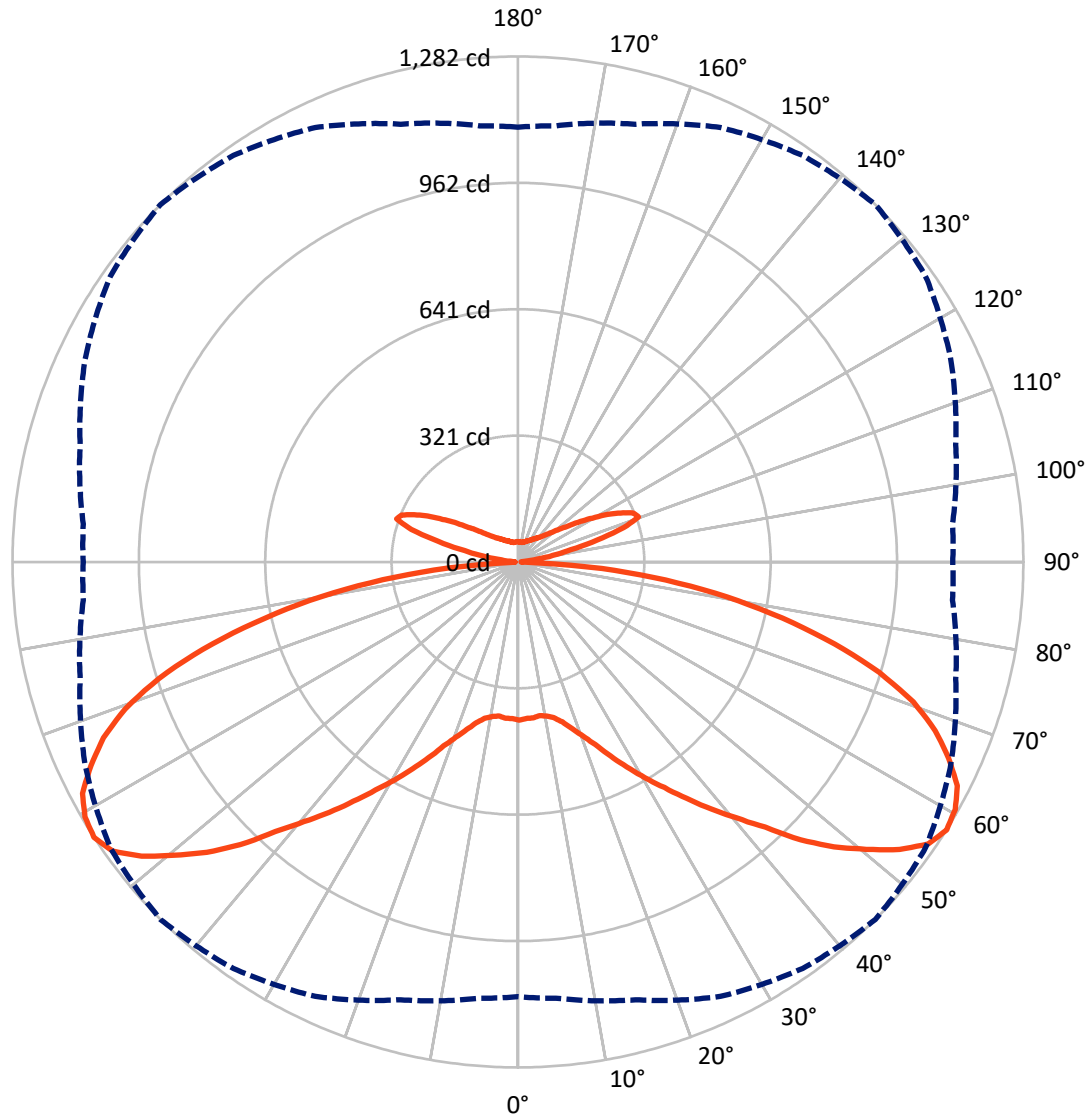
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.7 fc  
 Type V - Short - N/A

REPORT NUMBER: P833700  
CATALOG NUMBER: TTN-D2-830-U-WQ-UPL3

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P833700

CATALOG NUMBER: TTN-D2-830-U-WQ-UPL3

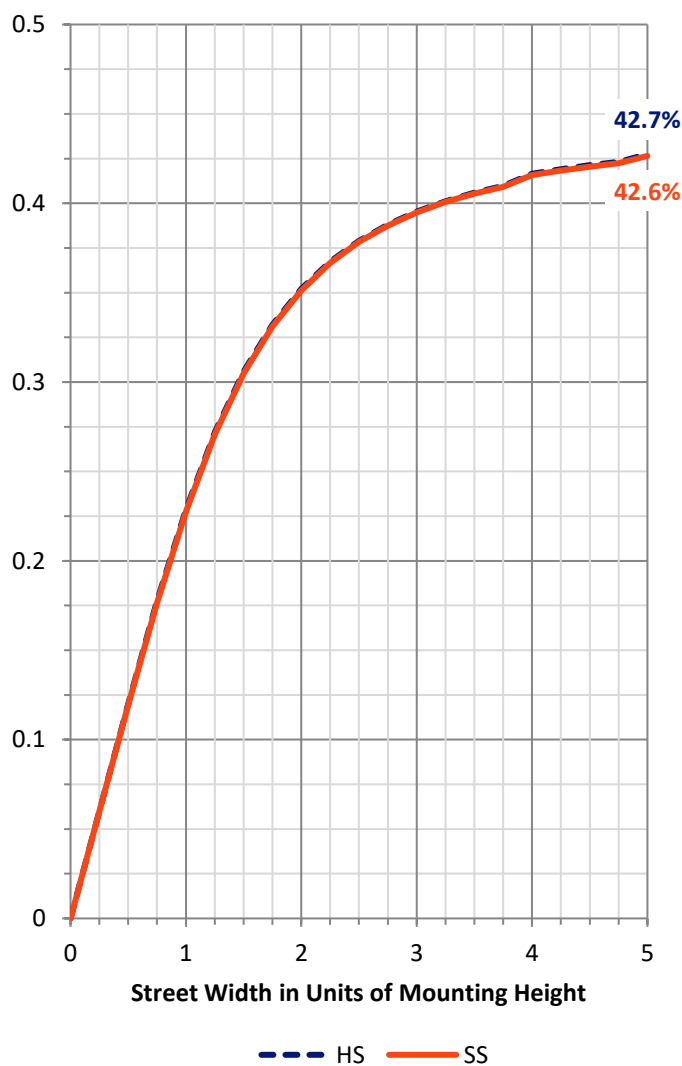
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2368.5	370.3	2738.9
	% Fixture	43.2	6.8	50.0
<b>Street Side</b>	Lumens	2368.5	370.3	2738.9
	% Fixture	43.2	6.8	50.0
<b>Total</b>	Lumens	4737.0	740.7	5477.7
	% Fixture	86.5	13.5	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.7	0.7
10°-20°	120.4	2.2
20°-30°	252.6	4.6
30°-40°	458.4	8.4
40°-50°	747.2	13.6
50°-60°	1045.9	19.1
60°-70°	1091.8	19.9
70°-80°	780.1	14.2
80°-90°	202.8	3.7
90°-100°	16.5	0.3
100°-110°	168.0	3.1
110°-120°	245.6	4.5
120°-130°	142.5	2.6
130°-140°	75.5	1.4
140°-150°	44.9	0.8
150°-160°	27.6	0.5
160°-170°	15.1	0.3
170°-180°	4.9	0.1
0°-90°	4737.0	86.5
0°-180°	5477.7	100.0

**Coefficient of Utilization**



REPORT NUMBER: P833700

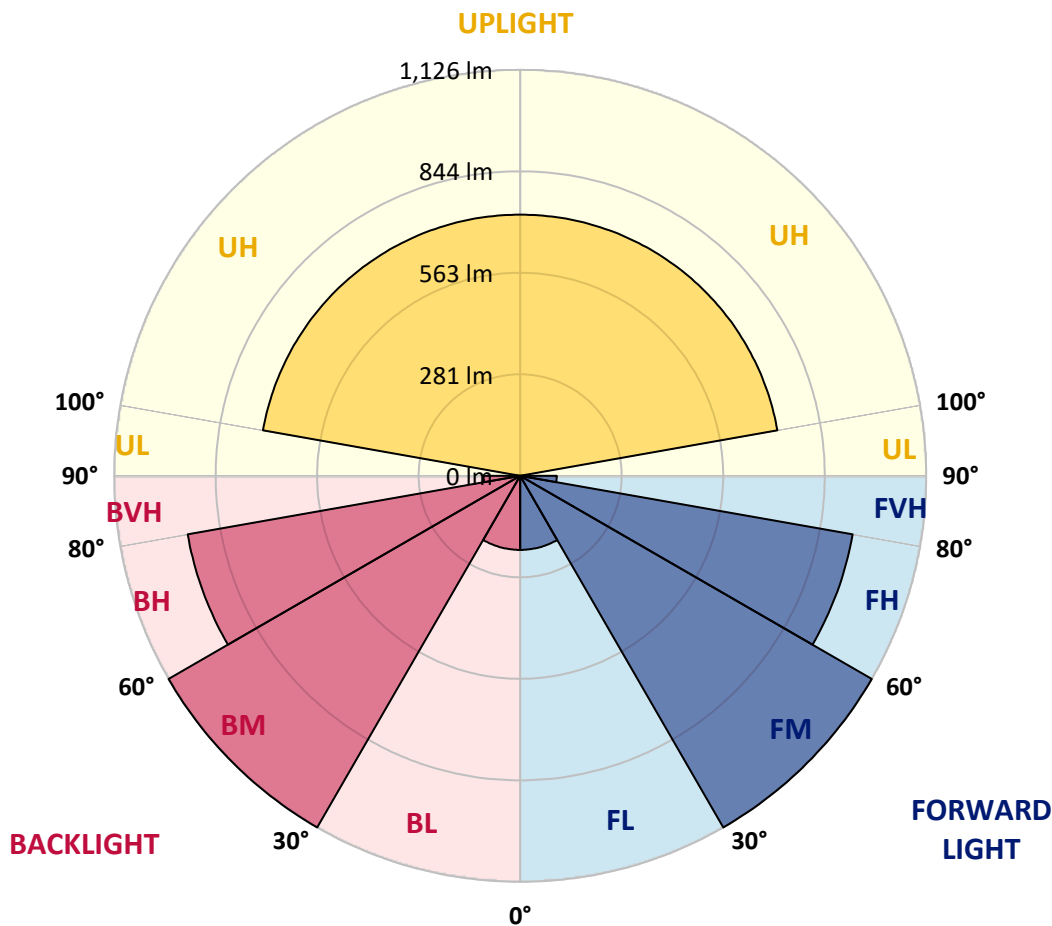
CATALOG NUMBER: TTN-D2-830-U-WQ-UPL3

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	205.4	3.7			
FM (30°-60°)	1125.7	20.6			
FH (60°-80°)	936.0	17.1			G1/1800
FVH (80°-90°)	101.4	1.9			G2/225
BL (0°-30°)	205.4	3.7	B1/500		
BM (30°-60°)	1125.7	20.6	B2/2500		
BH (60°-80°)	936.0	17.1	B2/1000		G1/1800
BVH (80°-90°)	101.4	1.9			G2/225
UL (90°-100°)	16.5	0.3		U2/50	
UH (100°-180°)	724.2	13.2		U4/1000	

**BUG Rating: B2-U4-G2**

Type V Short





REPORT NUMBER: P833700  
 CATALOG NUMBER: TTN-D2-830-U-WQ-UPL3

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	401.4	401.4	401.4	401.4	401.4	401.4	401.4	401.4	401.4	401.4	401.4
2.5°	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5
5°	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5
7.5°	389.7	389.7	393.6	393.6	393.6	393.6	393.6	393.6	393.6	393.6	393.6
10°	389.7	389.7	393.6	393.6	397.5	397.5	397.5	393.6	393.6	389.7	389.7
12.5°	397.5	397.5	397.5	401.4	405.3	405.3	405.3	401.4	401.4	397.5	397.5
15°	409.2	413.1	413.1	417.0	420.9	420.9	420.9	417.0	417.0	413.1	413.1
17.5°	432.6	432.6	432.6	436.5	440.4	444.3	444.3	436.5	436.5	432.6	436.5
20°	456.0	459.9	459.9	463.8	467.7	471.6	467.7	463.8	459.9	459.9	459.9
22.5°	491.1	491.1	495.0	495.0	502.8	502.8	502.8	495.0	495.0	495.0	495.0
25°	530.1	530.1	534.0	537.9	545.6	545.6	541.8	534.0	534.0	534.0	537.9
27.5°	576.8	576.8	580.7	580.7	588.5	588.5	584.6	580.7	580.7	580.7	584.6
30°	619.7	619.7	627.5	631.4	635.3	635.3	635.3	627.5	627.5	623.6	623.6
32.5°	658.7	662.6	666.5	678.2	686.0	682.1	686.0	678.2	670.4	666.5	666.5
35°	701.5	705.4	713.2	724.9	736.6	736.6	736.6	724.9	717.1	709.3	713.2
37.5°	752.2	752.2	763.9	775.6	791.2	795.1	791.2	779.5	767.8	760.0	760.0
40°	806.8	806.8	818.5	830.2	849.7	853.5	849.7	834.1	818.5	814.6	814.6
42.5°	861.3	861.3	876.9	888.6	912.0	919.8	912.0	892.5	876.9	865.2	869.1
45°	919.8	923.7	943.2	966.6	993.9	1005.6	993.9	970.5	947.1	923.7	923.7
47.5°	986.1	986.1	1009.4	1036.7	1067.9	1079.6	1064.0	1040.6	1009.4	990.0	990.0
50°	1028.9	1032.8	1064.0	1099.1	1138.1	1145.9	1134.2	1099.1	1064.0	1036.7	1032.8
52.5°	1071.8	1075.7	1110.8	1161.5	1200.4	1212.1	1196.5	1161.5	1110.8	1075.7	1075.7
55°	1099.1	1106.9	1145.9	1200.4	1243.3	1262.8	1239.4	1200.4	1142.0	1103.0	1099.1
57.5°	1103.0	1110.8	1149.8	1216.0	1258.9	1282.3	1262.8	1212.1	1149.8	1106.9	1103.0
60°	1095.2	1099.1	1138.1	1208.2	1258.9	1274.5	1258.9	1204.3	1134.2	1099.1	1091.3
62.5°	1075.7	1083.5	1122.5	1180.9	1239.4	1251.1	1235.5	1177.0	1118.6	1075.7	1067.9
65°	1013.3	1021.1	1079.6	1138.1	1188.7	1200.4	1188.7	1138.1	1075.7	1013.3	1005.6
67.5°	943.2	947.1	1005.6	1075.7	1122.5	1142.0	1122.5	1079.6	1001.7	943.2	935.4
70°	869.1	873.0	919.8	993.9	1040.6	1064.0	1044.5	997.8	915.9	865.2	861.3
72.5°	783.4	783.4	830.2	888.6	935.4	958.8	943.2	884.7	822.4	771.7	763.9
75°	666.5	670.4	721.0	763.9	814.6	830.2	814.6	767.8	709.3	658.7	650.9
77.5°	545.6	549.5	592.4	627.5	674.3	686.0	674.3	635.3	580.7	537.9	534.0
80°	413.1	417.0	452.1	483.3	522.3	537.9	526.2	487.2	444.3	405.3	393.6
82.5°	268.9	272.8	307.9	331.3	366.4	378.1	370.3	335.2	300.1	261.1	257.2
85°	120.8	124.7	155.9	175.4	202.7	214.4	206.6	175.4	148.1	113.0	105.2
87.5°	11.7	11.7	11.7	11.7	11.7	15.6	15.6	11.7	11.7	11.7	11.7
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



REPORT NUMBER: P833700  
 CATALOG NUMBER: TTN-D2-830-U-WQ-UPL3

**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)