

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: P833548

Luminaire Tested: **TTN-D2-735-U-WQ-UPL1**

Issue Date: 5/15/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P833548  
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-UPL1  
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT  
3500K, 70 CRI LEDS AND WIDE DISTRIBUTION  
Light Source: -  
Ballast/Driver: -

**Summary**

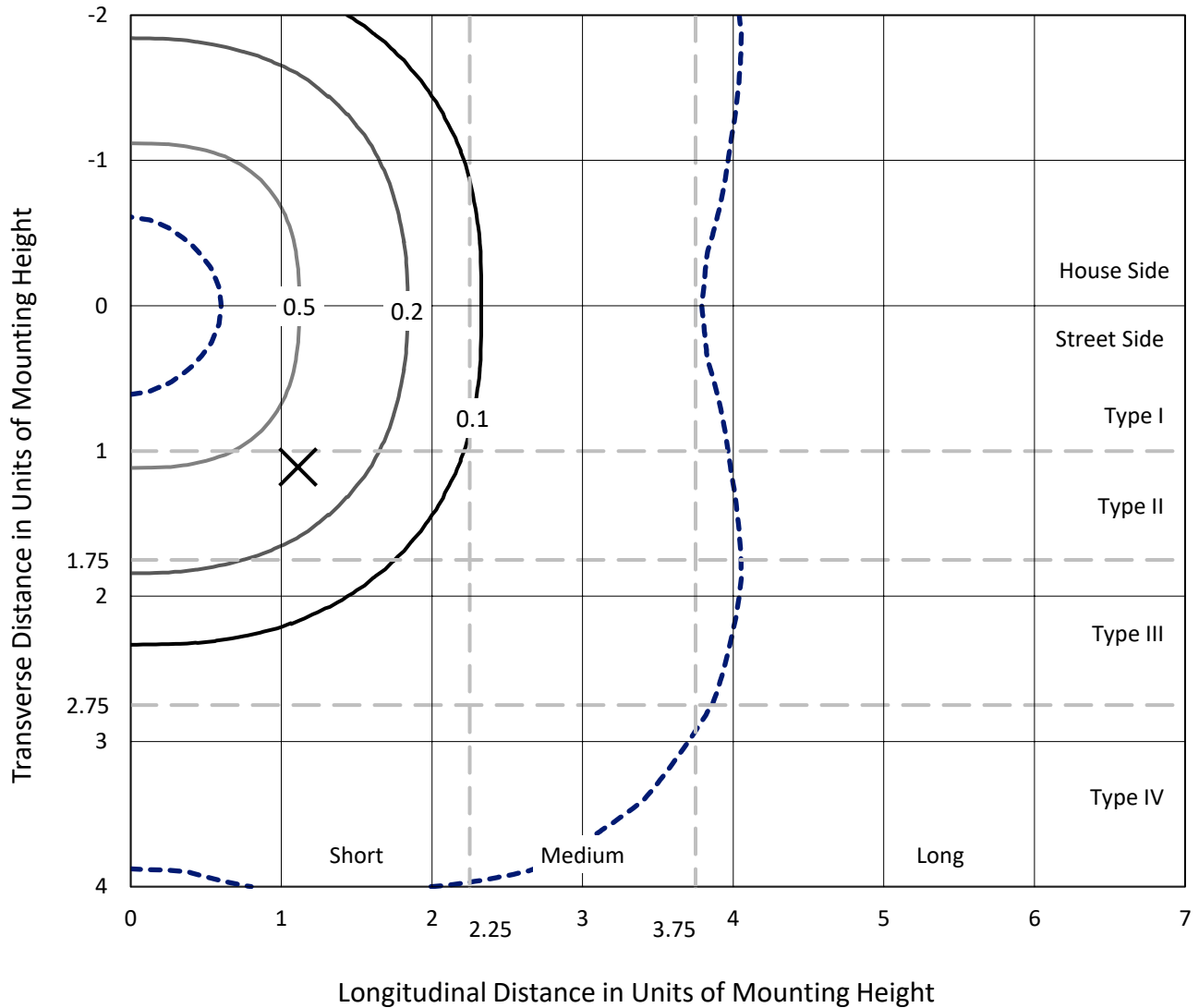
Lumens per Lamp: N/A  
Luminaire Lumens: 5311.9 lumens  
Efficiency: N/A  
Efficacy: 117.8 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')  
IES Classification: Type V - Short  
BUG Rating: B2 - U3 - G2  
  
Input Watts (W): 45.1  
Input Voltage (V): NR  
Input Current (Ain): 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

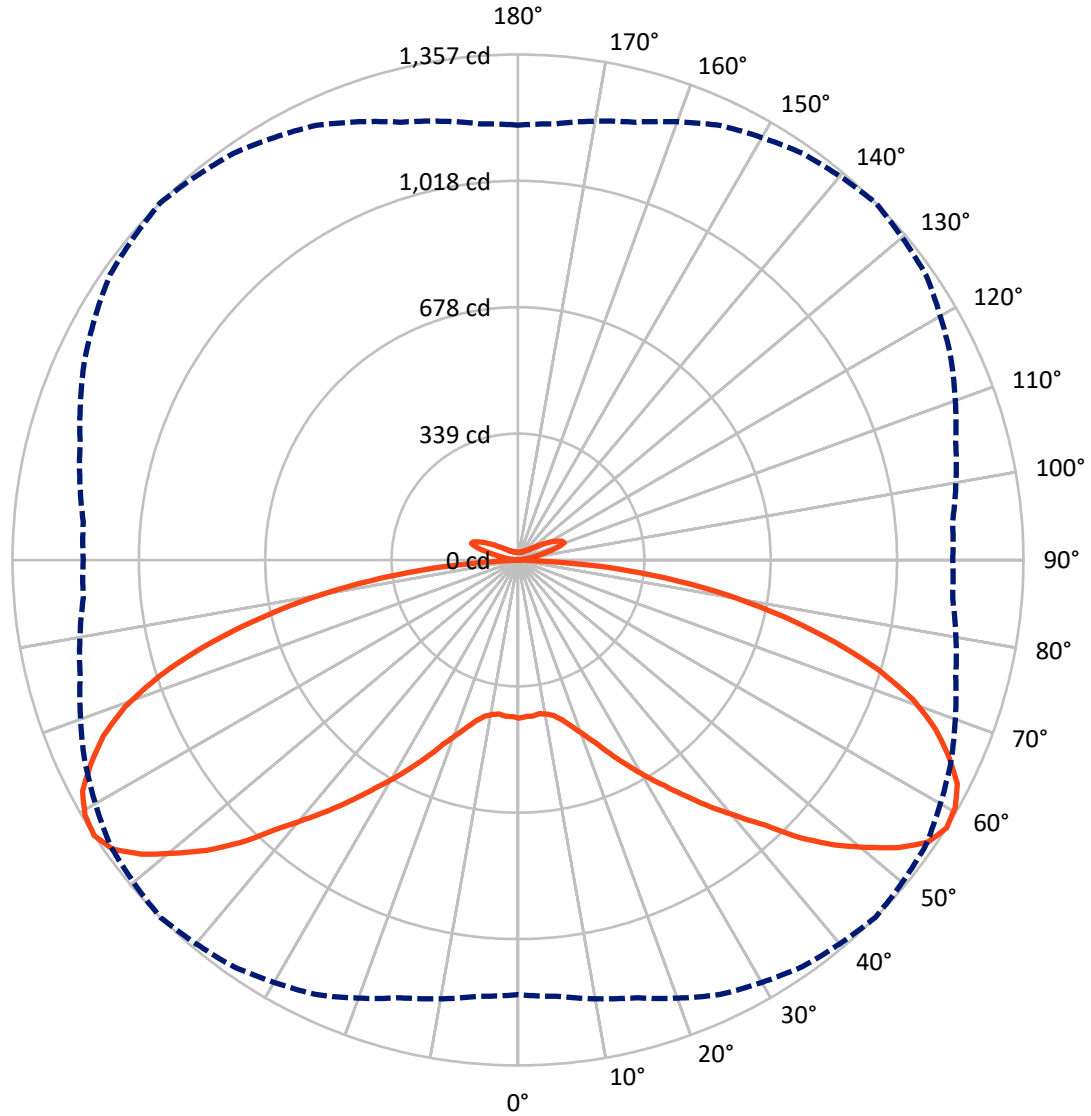
✕ Max cd  
 - - - 1/2 Max cd



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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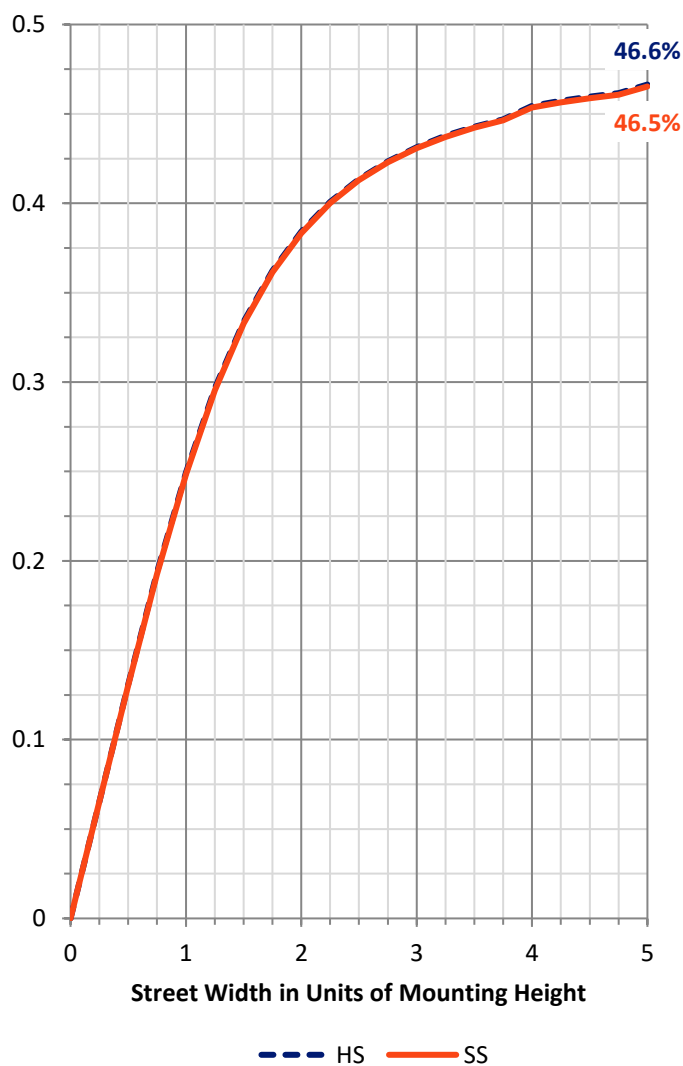
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2505.7	150.2	2656.0
	% Fixture	47.2	2.8	50.0
<b>Street Side</b>	Lumens	2505.7	150.2	2656.0
	% Fixture	47.2	2.8	50.0
<b>Total</b>	Lumens	5011.4	300.5	5311.9
	% Fixture	94.3	5.7	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.9	0.8
10°-20°	127.4	2.4
20°-30°	267.3	5.0
30°-40°	485.0	9.1
40°-50°	790.6	14.9
50°-60°	1106.6	20.8
60°-70°	1155.2	21.7
70°-80°	825.4	15.5
80°-90°	214.0	4.0
90°-100°	6.7	0.1
100°-110°	68.2	1.3
110°-120°	99.6	1.9
120°-130°	57.8	1.1
130°-140°	30.6	0.6
140°-150°	18.2	0.3
150°-160°	11.2	0.2
160°-170°	6.1	0.1
170°-180°	2.0	0.0
0°-90°	5011.4	94.3
0°-180°	5311.9	100.0

**Coefficient of Utilization**



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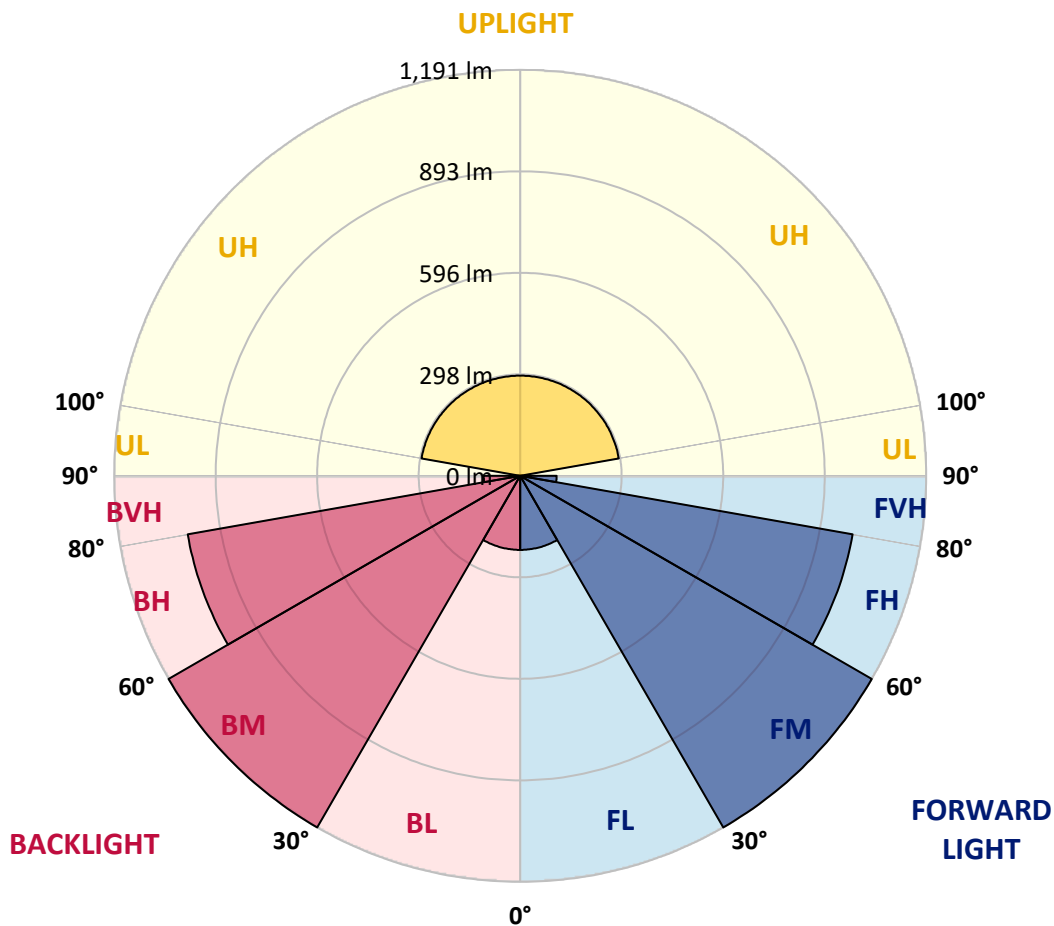
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	217.3	4.1			
FM (30°-60°)	1191.1	22.4			
FH (60°-80°)	990.3	18.6			G1/1800
FVH (80°-90°)	107.0	2.0			G2/225
BL (0°-30°)	217.3	4.1	B1/500		
BM (30°-60°)	1191.1	22.4	B2/2500		
BH (60°-80°)	990.3	18.6	B2/1000		G1/1800
BVH (80°-90°)	107.0	2.0			G2/225
UL (90°-100°)	6.7	0.1		U1/10	
UH (100°-180°)	293.8	5.5		U3/500	

**BUG Rating: B2-U3-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8
2.5°	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6
5°	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6
7.5°	412.4	412.4	416.5	416.5	416.5	416.5	416.5	416.5	416.5	416.5	416.5
10°	412.4	412.4	416.5	416.5	420.6	420.6	420.6	416.5	416.5	412.4	412.4
12.5°	420.6	420.6	420.6	424.8	428.9	428.9	428.9	424.8	424.8	420.6	420.6
15°	433.0	437.1	437.1	441.2	445.4	445.4	445.4	441.2	441.2	437.1	437.1
17.5°	457.7	457.7	457.7	461.9	466.0	470.1	470.1	461.9	461.9	457.7	461.9
20°	482.5	486.6	486.6	490.7	494.9	499.0	494.9	490.7	486.6	486.6	486.6
22.5°	519.6	519.6	523.7	523.7	532.0	532.0	532.0	523.7	523.7	523.7	523.7
25°	560.8	560.8	565.0	569.1	577.3	577.3	573.2	565.0	565.0	565.0	569.1
27.5°	610.3	610.3	614.4	614.4	622.7	622.7	618.6	614.4	614.4	614.4	618.6
30°	655.7	655.7	663.9	668.1	672.2	672.2	672.2	663.9	663.9	659.8	659.8
32.5°	696.9	701.0	705.2	717.5	725.8	721.7	725.8	717.5	709.3	705.2	705.2
35°	742.3	746.4	754.7	767.0	779.4	779.4	779.4	767.0	758.8	750.5	754.7
37.5°	795.9	795.9	808.3	820.6	837.1	841.3	837.1	824.8	812.4	804.1	804.1
40°	853.6	853.6	866.0	878.4	899.0	903.1	899.0	882.5	866.0	861.9	861.9
42.5°	911.4	911.4	927.9	940.2	965.0	973.2	965.0	944.3	927.9	915.5	919.6
45°	973.2	977.3	998.0	1022.7	1051.6	1063.9	1051.6	1026.8	1002.1	977.3	977.3
47.5°	1043.3	1043.3	1068.1	1096.9	1129.9	1142.3	1125.8	1101.1	1068.1	1047.4	1047.4
50°	1088.7	1092.8	1125.8	1162.9	1204.1	1212.4	1200.0	1162.9	1125.8	1096.9	1092.8
52.5°	1134.0	1138.2	1175.3	1228.9	1270.1	1282.5	1266.0	1228.9	1175.3	1138.2	1138.2
55°	1162.9	1171.2	1212.4	1270.1	1315.5	1336.1	1311.4	1270.1	1208.3	1167.0	1162.9
57.5°	1167.0	1175.3	1216.5	1286.6	1332.0	1356.7	1336.1	1282.5	1216.5	1171.2	1167.0
60°	1158.8	1162.9	1204.1	1278.4	1332.0	1348.5	1332.0	1274.3	1200.0	1162.9	1154.7
62.5°	1138.2	1146.4	1187.7	1249.5	1311.4	1323.7	1307.2	1245.4	1183.5	1138.2	1129.9
65°	1072.2	1080.4	1142.3	1204.1	1257.8	1270.1	1257.8	1204.1	1138.2	1072.2	1063.9
67.5°	998.0	1002.1	1063.9	1138.2	1187.7	1208.3	1187.7	1142.3	1059.8	998.0	989.7
70°	919.6	923.7	973.2	1051.6	1101.1	1125.8	1105.2	1055.7	969.1	915.5	911.4
72.5°	828.9	828.9	878.4	940.2	989.7	1014.5	998.0	936.1	870.1	816.5	808.3
75°	705.2	709.3	762.9	808.3	861.9	878.4	861.9	812.4	750.5	696.9	688.7
77.5°	577.3	581.5	626.8	663.9	713.4	725.8	713.4	672.2	614.4	569.1	565.0
80°	437.1	441.2	478.4	511.4	552.6	569.1	556.7	515.5	470.1	428.9	416.5
82.5°	284.5	288.7	325.8	350.5	387.6	400.0	391.8	354.6	317.5	276.3	272.2
85°	127.8	132.0	165.0	185.6	214.4	226.8	218.6	185.6	156.7	119.6	111.3
87.5°	12.4	12.4	12.4	12.4	12.4	16.5	16.5	12.4	12.4	12.4	12.4
90°	2.6	2.6	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.6	2.6
92.5°	2.6	2.6	2.6	3.6	4.1	3.6	4.1	3.1	3.1	2.6	2.6
95°	3.1	3.1	3.6	4.6	5.7	6.2	6.2	3.6	3.6	3.1	3.1
97.5°	4.1	4.6	4.6	5.7	9.3	17.0	10.3	5.1	5.1	4.6	4.1
100°	6.7	7.2	7.2	12.9	27.2	36.5	26.2	13.4	9.8	7.2	7.2
102.5°	21.6	22.6	27.8	41.6	61.7	56.0	47.3	44.7	30.8	24.7	23.6
105°	55.0	54.5	58.6	69.4	86.4	84.8	78.1	70.9	61.2	56.5	56.5
107.5°	72.5	72.5	76.1	85.3	98.2	114.6	116.2	92.0	80.7	75.6	75.0
110°	81.7	81.7	84.8	92.5	109.5	132.6	131.6	113.6	99.7	93.0	92.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	83.8	84.3	88.4	100.2	118.7	129.0	124.4	117.2	111.0	105.9	104.9
115°	86.9	86.9	91.5	102.8	113.1	117.2	112.1	106.4	102.3	100.2	101.3
117.5°	85.8	87.4	88.4	94.6	101.3	104.4	101.8	94.1	91.0	90.0	88.4
120°	79.7	79.7	80.7	83.8	87.4	88.9	87.9	82.8	80.2	79.7	78.6
122.5°	70.9	71.5	70.9	72.5	75.0	76.6	75.6	71.5	70.4	70.4	69.4
125°	62.2	62.2	61.7	62.7	64.3	63.7	64.3	62.2	61.7	61.7	61.2
127.5°	56.0	55.5	54.5	55.0	55.5	55.5	56.0	54.0	54.5	55.0	54.5
130°	49.9	49.9	48.8	48.8	48.8	47.8	48.8	47.8	48.3	48.8	49.3
132.5°	44.2	44.2	42.7	42.2	42.2	42.2	42.7	42.2	43.2	44.2	44.2
135°	39.6	39.6	38.0	38.6	38.6	38.0	38.6	38.0	39.1	39.6	39.6
137.5°	36.0	36.0	35.0	35.0	35.0	34.4	35.0	35.0	35.5	36.5	37.0
140°	32.9	32.9	32.4	32.4	31.9	32.4	32.4	32.4	32.9	33.4	33.4
142.5°	31.4	30.8	30.3	29.8	30.3	30.3	30.3	29.8	30.3	31.4	31.4
145°	28.8	28.8	28.3	28.3	28.3	28.8	28.3	28.3	28.8	28.8	29.3
147.5°	27.2	27.2	26.7	27.2	27.2	27.2	27.2	26.7	27.2	27.2	27.8
150°	26.7	26.2	25.7	26.2	26.2	25.7	25.7	25.7	25.7	26.2	26.2
152.5°	25.2	25.2	24.7	25.2	24.7	24.7	24.7	24.7	24.7	25.2	25.7
155°	24.2	24.2	23.6	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2
157.5°	23.1	23.6	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.6	23.6
160°	22.6	22.6	22.6	22.6	22.1	22.1	22.1	22.6	22.6	22.6	23.1
162.5°	22.1	22.1	22.1	22.1	21.6	21.6	21.6	21.6	22.1	22.1	22.6
165°	22.1	21.6	21.6	21.6	21.1	21.1	21.1	21.1	21.6	22.1	21.6
167.5°	21.1	21.1	21.1	21.1	21.1	20.6	20.6	21.1	21.1	21.1	21.6
170°	21.1	21.1	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	21.1
172.5°	21.1	21.1	21.1	21.1	20.6	20.6	20.6	20.6	20.6	21.1	21.1
175°	21.1	21.1	21.1	21.1	20.6	20.6	20.6	21.1	21.1	21.1	20.6
177.5°	21.1	21.1	21.1	21.1	20.6	21.1	21.1	21.1	21.1	21.1	21.1
180°	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1

(END OF REPORT)