

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: P833686

Luminaire Tested: **TTN-D2-830-U-RW-CG-UPL1**

Issue Date: 5/15/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P833686  
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-RW-CG-UPL1  
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT  
3000K, 80 CRI LEDS AND RECTANGULAR DISTRIBUTION WITH CLEAR GLASS  
Light Source: -  
Ballast/Driver: -

**Summary**

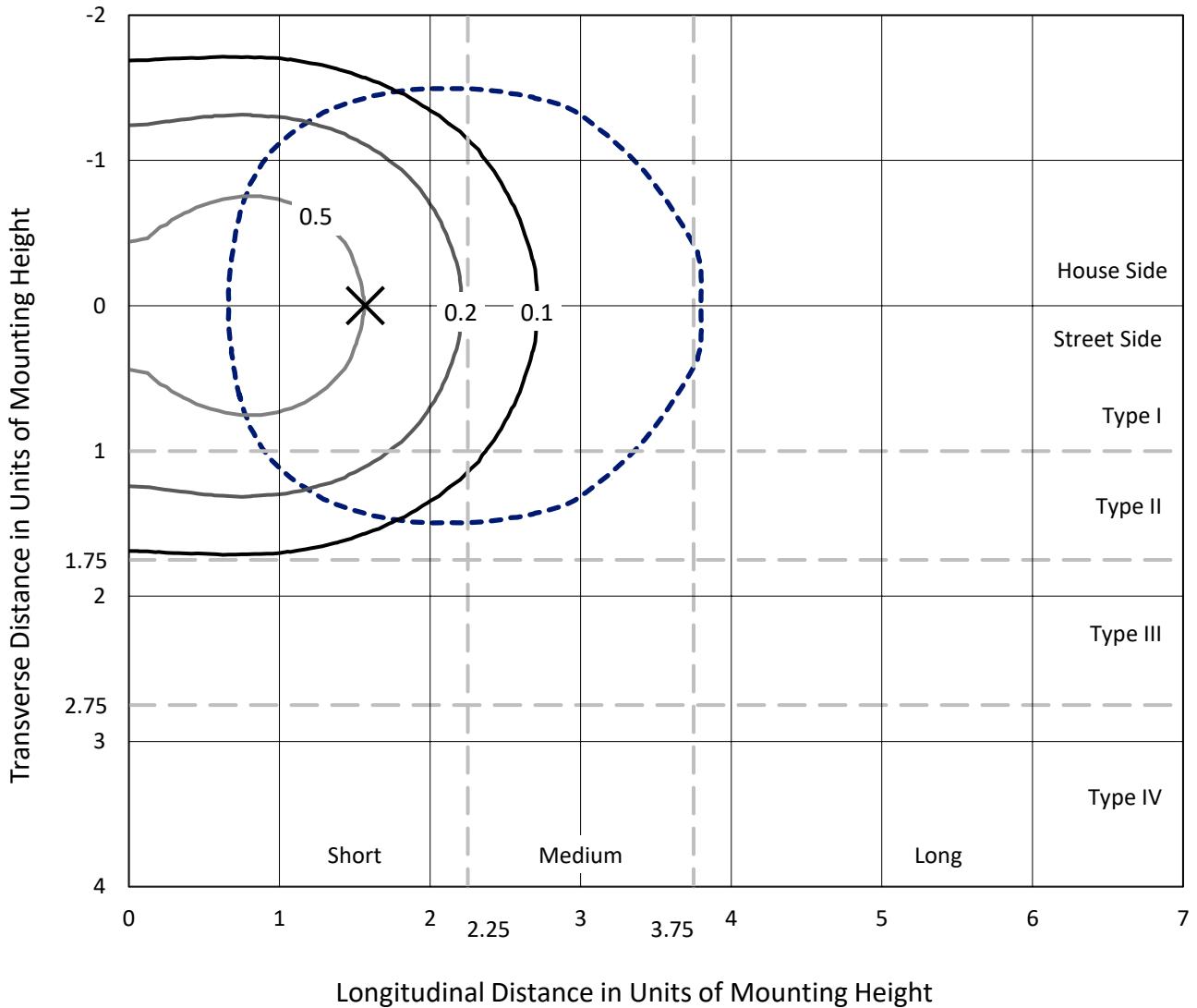
Lumens per Lamp: N/A  
Luminaire Lumens: 4626.9 lumens  
Efficiency: N/A  
Efficacy: 102.6 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')  
IES Classification: Type II - Short  
BUG Rating: B2 - U3 - G2  
  
Input Watts (W): 45.1  
Input Voltage (V): NR  
Input Current (Ain): 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

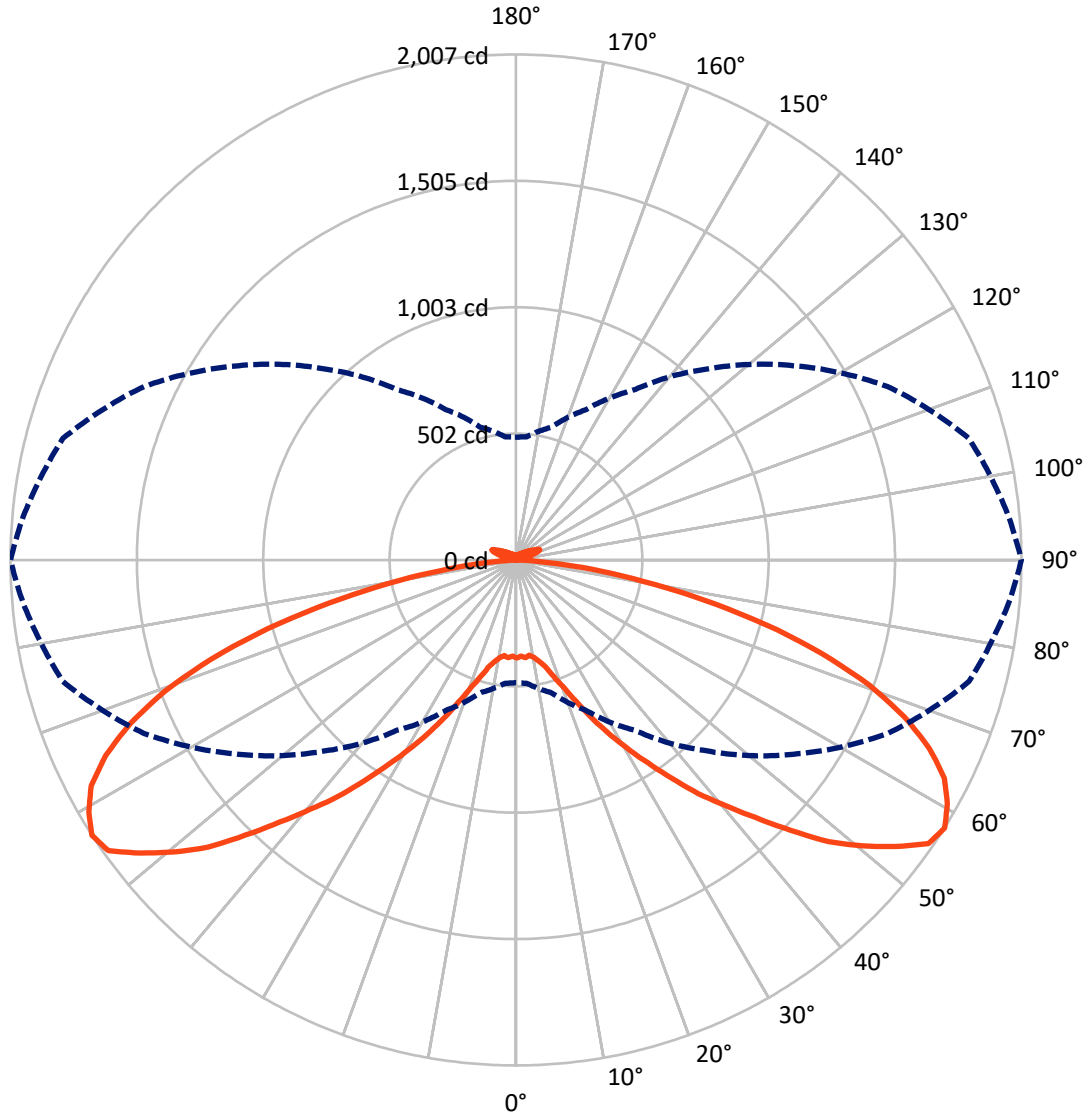
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

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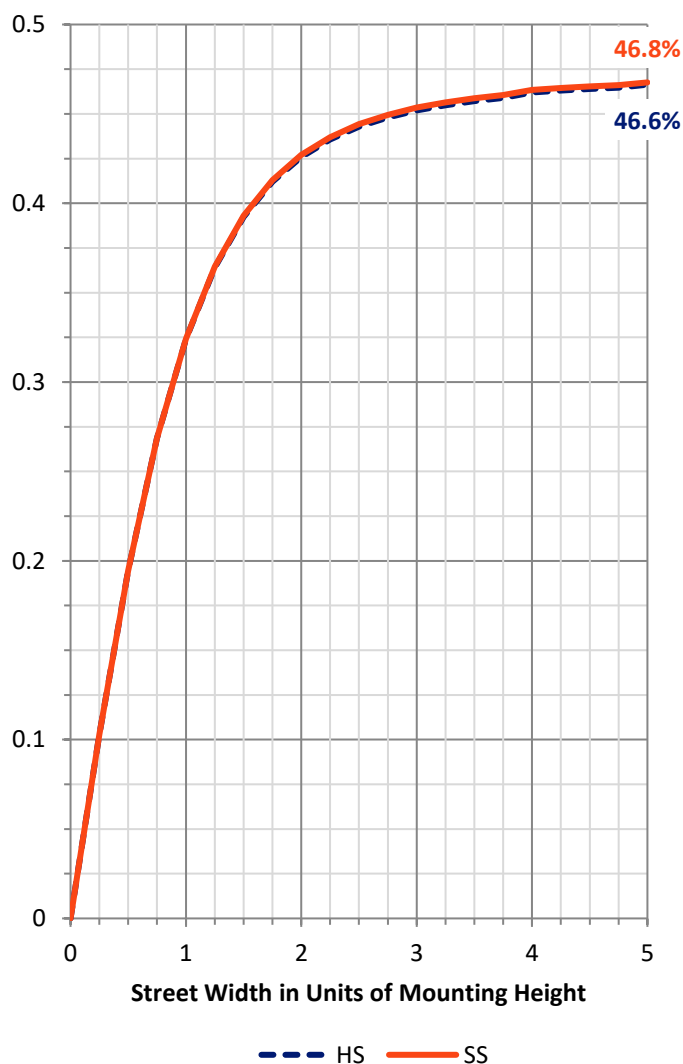
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2165.7	147.7	2313.4
	% Fixture	46.8	3.2	50.0
<b>Street Side</b>	Lumens	2165.7	147.7	2313.4
	% Fixture	46.8	3.2	50.0
<b>Total</b>	Lumens	4331.4	295.5	4626.9
	% Fixture	93.6	6.4	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.1	0.8
10°-20°	119.7	2.6
20°-30°	254.7	5.5
30°-40°	469.4	10.1
40°-50°	755.8	16.3
50°-60°	1023.0	22.1
60°-70°	994.7	21.5
70°-80°	578.7	12.5
80°-90°	98.2	2.1
90°-100°	6.6	0.1
100°-110°	67.0	1.4
110°-120°	98.0	2.1
120°-130°	56.9	1.2
130°-140°	30.1	0.7
140°-150°	17.9	0.4
150°-160°	11.0	0.2
160°-170°	6.0	0.1
170°-180°	2.0	0.0
0°-90°	4331.4	93.6
0°-180°	4626.9	100.0

**Coefficient of Utilization**



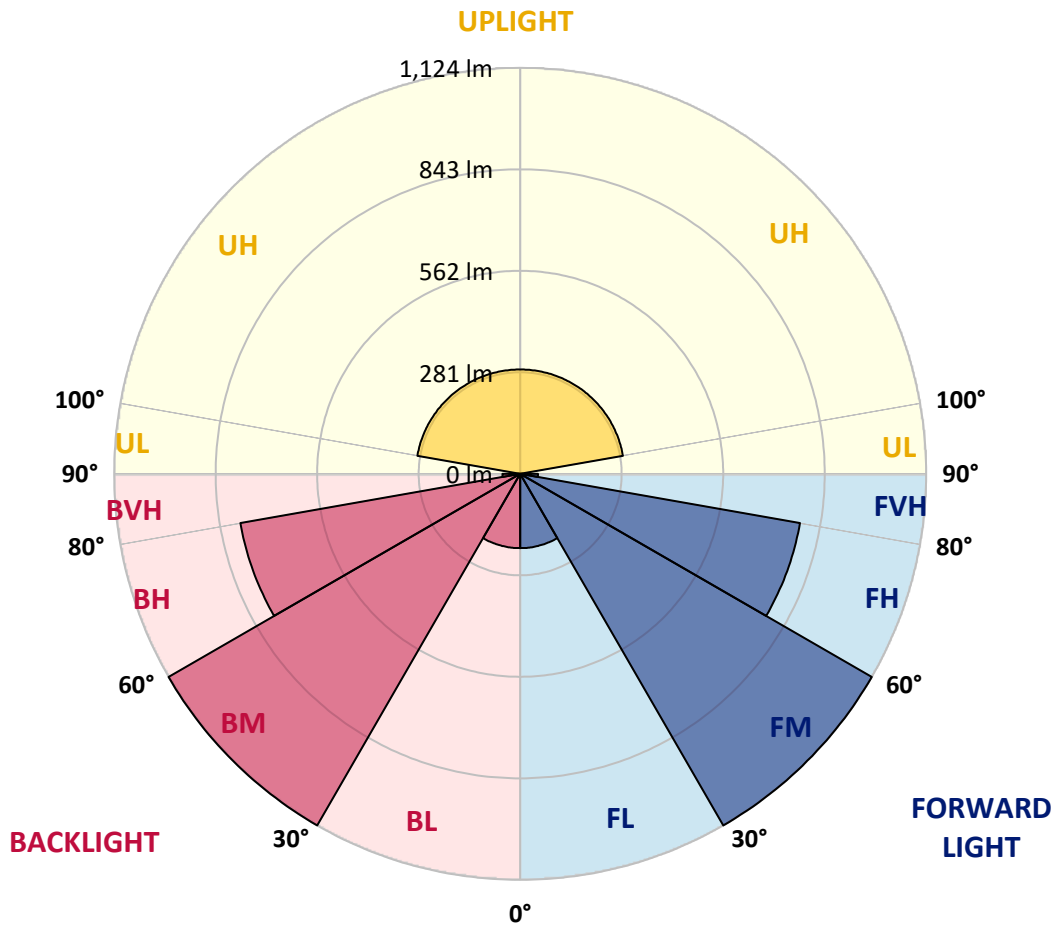
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	205.7	4.4			
FM (30°-60°)	1124.2	24.3			
FH (60°-80°)	786.7	17.0			G1/1800
FVH (80°-90°)	49.1	1.1			G1/100
BL (0°-30°)	205.7	4.4	B1/500		
BM (30°-60°)	1124.2	24.3	B2/2500		
BH (60°-80°)	786.7	17.0	B2/1000		G2/1000
BVH (80°-90°)	49.1	1.1			G1/100
UL (90°-100°)	6.6	0.1		U1/10	
UH (100°-180°)	288.9	6.2		U3/500	

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

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	389.7	389.7	389.7	389.7	389.7	389.7	389.7	389.7	389.7	389.7	389.7
2.5°	389.7	389.7	389.7	389.7	385.8	385.8	385.8	381.9	381.9	381.9	381.9
5°	389.7	389.7	389.7	393.6	393.6	393.6	389.7	389.7	389.7	389.7	389.7
7.5°	389.7	393.6	393.6	389.7	389.7	385.8	385.8	385.8	381.9	381.9	381.9
10°	389.7	389.7	389.7	389.7	385.8	385.8	389.7	389.7	393.6	393.6	393.6
12.5°	385.8	385.8	389.7	389.7	389.7	393.6	401.4	405.3	409.2	413.1	413.1
15°	389.7	389.7	393.6	397.5	401.4	409.2	420.9	432.5	440.3	444.2	440.3
17.5°	389.7	393.6	397.5	405.3	417.0	428.6	448.1	463.7	479.3	483.2	487.1
20°	397.5	397.5	401.4	417.0	436.4	455.9	483.2	510.5	530.0	537.8	537.8
22.5°	401.4	405.3	409.2	428.6	459.8	491.0	530.0	561.1	588.4	604.0	607.9
25°	413.1	413.1	420.9	448.1	487.1	533.9	584.5	631.3	666.4	685.8	689.7
27.5°	420.9	424.7	436.4	471.5	522.2	580.6	650.8	705.3	748.2	771.6	775.5
30°	428.6	432.5	455.9	494.9	557.2	627.4	709.2	779.4	833.9	861.2	865.1
32.5°	440.3	444.2	471.5	514.4	588.4	674.1	767.7	853.4	931.3	954.7	958.6
35°	452.0	455.9	487.1	537.8	623.5	720.9	830.0	931.3	1024.9	1056.0	1063.8
37.5°	463.7	467.6	498.8	561.1	658.6	771.6	900.2	1021.0	1122.3	1165.1	1176.8
40°	475.4	479.3	514.4	584.5	693.6	826.1	974.2	1106.7	1223.6	1274.2	1282.0
42.5°	483.2	487.1	526.1	604.0	728.7	876.8	1052.1	1200.2	1324.9	1391.2	1398.9
45°	494.9	498.8	541.7	631.3	759.9	935.2	1126.2	1305.4	1449.6	1523.6	1531.4
47.5°	502.7	506.6	553.3	646.9	794.9	989.8	1204.1	1398.9	1570.4	1648.3	1671.7
50°	506.6	510.5	561.1	662.5	818.3	1028.8	1266.5	1492.5	1675.6	1773.0	1784.7
52.5°	506.6	514.4	565.0	674.1	833.9	1063.8	1317.1	1570.4	1776.9	1886.0	1889.9
55°	502.7	506.6	561.1	670.2	841.7	1079.4	1352.2	1617.2	1847.1	1952.3	1987.4
57.5°	487.1	491.0	545.6	658.6	826.1	1071.6	1344.4	1628.9	1862.7	1964.0	2006.8
60°	463.7	471.5	522.2	631.3	802.7	1044.3	1321.0	1605.5	1839.3	1964.0	1967.9
62.5°	436.4	440.3	491.0	596.2	767.7	1001.5	1278.1	1558.7	1784.7	1913.3	1909.4
65°	397.5	401.4	444.2	553.3	705.3	919.6	1192.4	1484.7	1679.5	1815.9	1804.2
67.5°	354.6	358.5	397.5	494.9	631.3	830.0	1075.5	1360.0	1531.4	1671.7	1663.9
70°	307.8	307.8	342.9	424.7	553.3	728.7	946.9	1196.3	1367.8	1484.7	1488.6
72.5°	253.3	253.3	284.5	354.6	463.7	611.8	798.8	1021.0	1161.2	1262.6	1270.4
75°	198.7	194.8	222.1	280.6	366.3	487.1	631.3	822.2	931.3	1028.8	1024.9
77.5°	140.3	140.3	155.9	202.6	265.0	362.4	467.6	619.6	693.6	775.5	759.9
80°	89.6	89.6	97.4	132.5	175.4	241.6	307.8	420.9	471.5	533.9	514.4
82.5°	46.8	42.9	50.7	70.1	93.5	132.5	171.5	245.5	268.9	315.6	300.1
85°	15.6	15.6	15.6	23.4	35.1	50.7	66.2	105.2	109.1	140.3	128.6
87.5°	3.9	0.0	0.0	3.9	3.9	3.9	3.9	11.7	11.7	23.4	15.6
90°	2.5	2.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.5	2.5
92.5°	2.5	2.5	2.5	3.5	4.0	3.5	4.0	3.0	3.0	2.5	2.5
95°	3.0	3.0	3.5	4.5	5.6	6.1	6.1	3.5	3.5	3.0	3.0
97.5°	4.0	4.5	4.5	5.6	9.1	16.7	10.1	5.1	5.1	4.5	4.0
100°	6.6	7.1	7.1	12.6	26.8	35.9	25.8	13.1	9.6	7.1	7.1
102.5°	21.2	22.2	27.3	40.9	60.7	55.1	46.5	44.0	30.3	24.3	23.3
105°	54.1	53.6	57.6	68.2	84.9	83.4	76.8	69.8	60.2	55.6	55.6
107.5°	71.3	71.3	74.8	83.9	96.6	112.7	114.2	90.5	79.4	74.3	73.8
110°	80.4	80.4	83.4	91.0	107.7	130.4	129.4	111.7	98.1	91.5	90.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	82.4	82.9	86.9	98.6	116.8	126.9	122.3	115.3	109.2	104.1	103.1
115°	85.4	85.4	90.0	101.1	111.2	115.3	110.2	104.6	100.6	98.6	99.6
117.5°	84.4	85.9	86.9	93.0	99.6	102.6	100.1	92.5	89.5	88.5	86.9
120°	78.4	78.4	79.4	82.4	85.9	87.5	86.4	81.4	78.9	78.4	77.3
122.5°	69.8	70.3	69.8	71.3	73.8	75.3	74.3	70.3	69.3	69.3	68.2
125°	61.2	61.2	60.7	61.7	63.2	62.7	63.2	61.2	60.7	60.7	60.2
127.5°	55.1	54.6	53.6	54.1	54.6	54.6	55.1	53.1	53.6	54.1	53.6
130°	49.0	49.0	48.0	48.0	48.0	47.0	48.0	47.0	47.5	48.0	48.5
132.5°	43.5	43.5	42.0	41.5	41.5	41.5	42.0	41.5	42.5	43.5	43.5
135°	38.9	38.9	37.4	37.9	37.9	37.4	37.9	37.4	38.4	38.9	38.9
137.5°	35.4	35.4	34.4	34.4	34.4	33.9	34.4	34.4	34.9	35.9	36.4
140°	32.4	32.4	31.8	31.8	31.3	31.8	31.8	31.8	32.4	32.9	32.9
142.5°	30.8	30.3	29.8	29.3	29.8	29.8	29.8	29.3	29.8	30.8	30.8
145°	28.3	28.3	27.8	27.8	27.8	28.3	27.8	27.8	28.3	28.3	28.8
147.5°	26.8	26.8	26.3	26.8	26.8	26.8	26.8	26.3	26.8	26.8	27.3
150°	26.3	25.8	25.3	25.8	25.8	25.3	25.3	25.3	25.3	25.8	25.8
152.5°	24.8	24.8	24.3	24.8	24.3	24.3	24.3	24.3	24.3	24.8	25.3
155°	23.8	23.8	23.3	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
157.5°	22.7	23.3	22.7	22.7	22.7	22.7	22.7	22.7	22.7	23.3	23.3
160°	22.2	22.2	22.2	22.2	21.7	21.7	21.7	22.2	22.2	22.2	22.7
162.5°	21.7	21.7	21.7	21.7	21.2	21.2	21.2	21.2	21.7	21.7	22.2
165°	21.7	21.2	21.2	21.2	20.7	20.7	20.7	20.7	21.2	21.7	21.2
167.5°	20.7	20.7	20.7	20.7	20.7	20.2	20.2	20.7	20.7	20.7	21.2
170°	20.7	20.7	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.7
172.5°	20.7	20.7	20.7	20.7	20.2	20.2	20.2	20.2	20.2	20.7	20.7
175°	20.7	20.7	20.7	20.7	20.2	20.2	20.2	20.7	20.7	20.7	20.2
177.5°	20.7	20.7	20.7	20.7	20.2	20.7	20.7	20.7	20.7	20.7	20.7
180°	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7

(END OF REPORT)