

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: P833541

Luminaire Tested: **TTN-D2-735-U-RW-UPL3**

Issue Date: 5/15/2024

Test Information

Test Method: LM-79-08
Report Number: P833541
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-RW-UPL3
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
3500K, 70 CRI LEDS AND RECTANGULAR DISTRIBUTION
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5640.7 lumens
Efficiency: N/A
Efficacy: 114.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')
IES Classification: Type II - Short
BUG Rating: B2 - U4 - G2

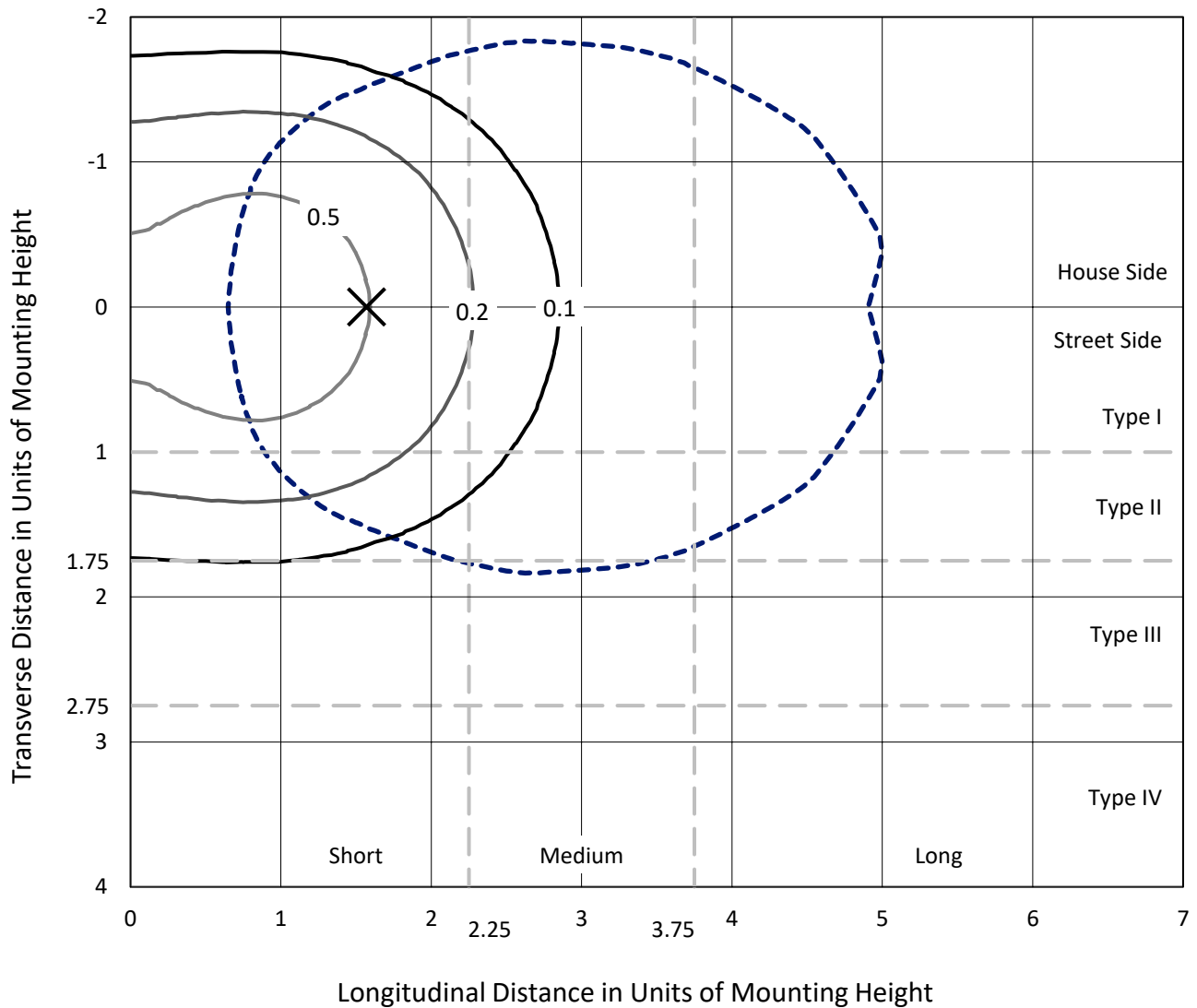
Input Watts (W): 49.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

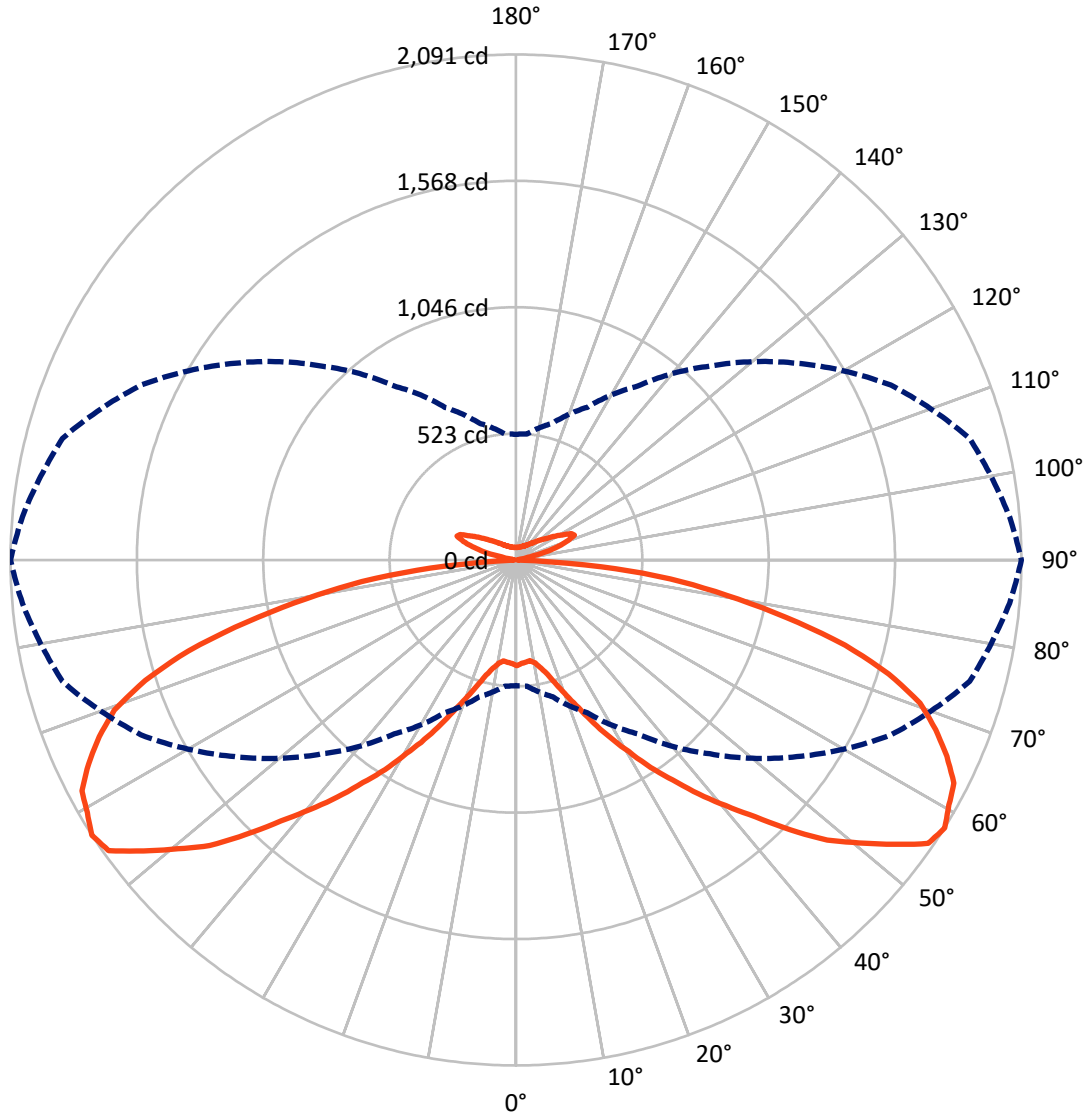
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 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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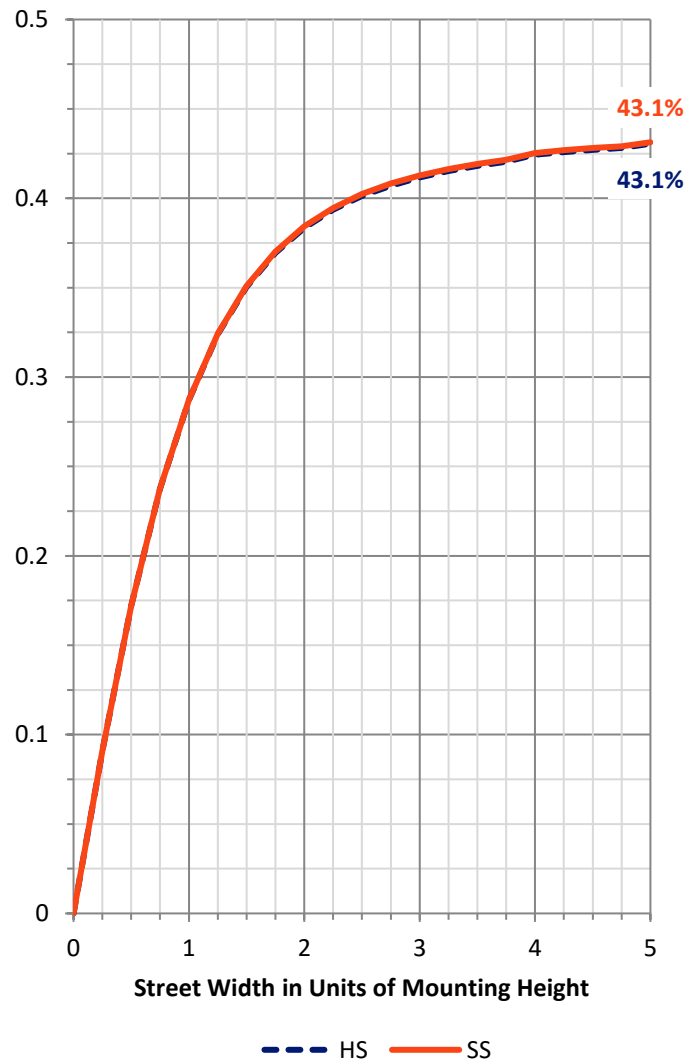
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2444.0	376.3	2820.3
	% Fixture	43.3	6.7	50.0
Street Side	Lumens	2444.0	376.3	2820.3
	% Fixture	43.3	6.7	50.0
Total	Lumens	4888.0	752.7	5640.7
	% Fixture	86.7	13.3	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.0	0.7
10°-20°	131.1	2.3
20°-30°	273.4	4.8
30°-40°	490.4	8.7
40°-50°	783.6	13.9
50°-60°	1072.7	19.0
60°-70°	1106.5	19.6
70°-80°	786.9	14.0
80°-90°	202.4	3.6
90°-100°	16.8	0.3
100°-110°	170.7	3.0
110°-120°	249.6	4.4
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°	4888.0	86.7
0°-180°	5640.7	100.0

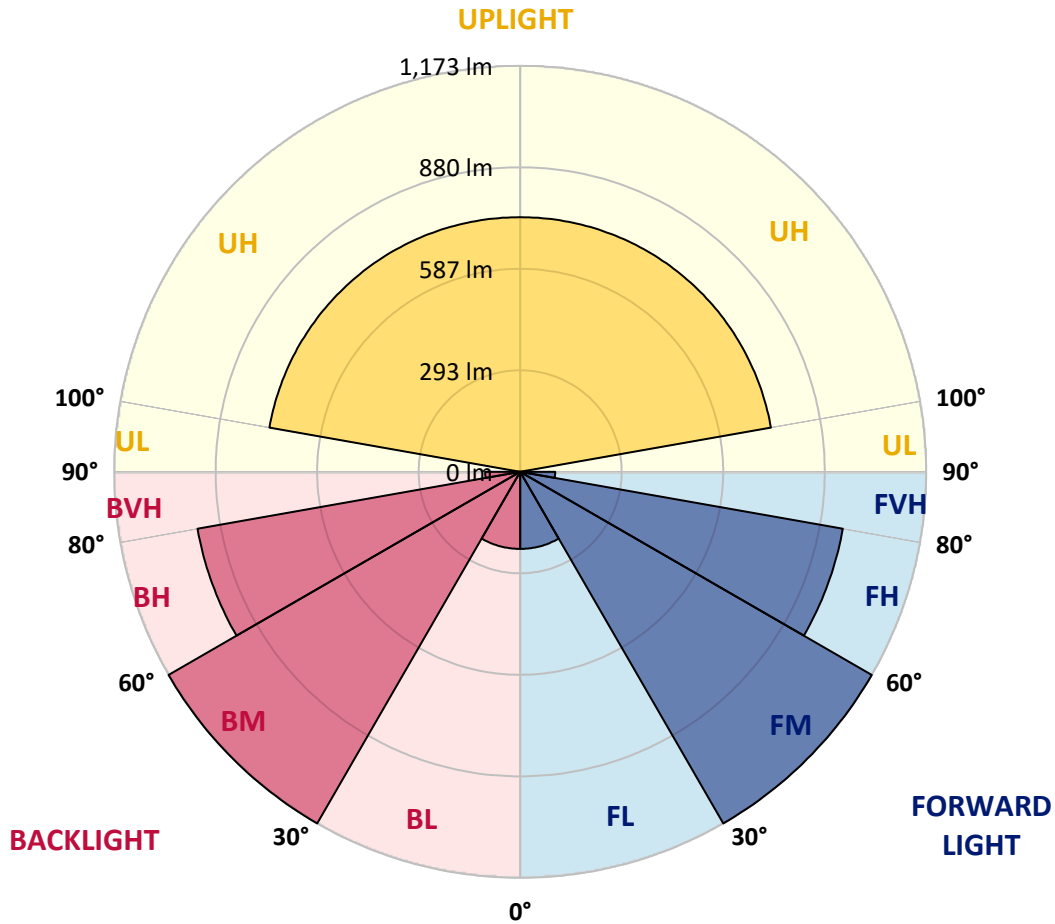


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	222.7	3.9			
FM (30°-60°)	1173.3	20.8			
FH (60°-80°)	946.7	16.8			G1/1800
FVH (80°-90°)	101.2	1.8			G2/225
BL (0°-30°)	222.7	3.9	B1/500		
BM (30°-60°)	1173.3	20.8	B2/2500		
BH (60°-80°)	946.7	16.8	B2/1000		G2/1000
BVH (80°-90°)	101.2	1.8			G2/225
UL (90°-100°)	16.8	0.3		U2/50	
UH (100°-180°)	735.8	13.0		U4/1000	

BUG Rating: B2-U4-G2
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	437.2	437.2	437.2	437.2	437.2	437.2	437.2	437.2	437.2	437.2	437.2
2.5°	437.2	437.2	433.0	433.0	433.0	428.9	428.9	428.9	428.9	424.8	428.9
5°	437.2	437.2	437.2	437.2	433.0	428.9	428.9	428.9	424.8	424.8	424.8
7.5°	433.0	433.0	433.0	433.0	428.9	424.8	424.8	424.8	420.7	420.7	420.7
10°	428.9	433.0	428.9	428.9	424.8	424.8	428.9	428.9	433.0	433.0	433.0
12.5°	424.8	424.8	424.8	428.9	428.9	433.0	441.3	449.5	453.7	457.8	457.8
15°	424.8	424.8	428.9	433.0	441.3	449.5	461.9	474.3	482.5	490.8	490.8
17.5°	424.8	424.8	428.9	441.3	453.7	470.2	490.8	507.3	523.8	536.1	540.3
20°	424.8	424.8	433.0	449.5	474.3	499.0	527.9	552.6	577.4	598.0	598.0
22.5°	428.9	433.0	441.3	461.9	499.0	536.1	573.3	610.4	639.2	664.0	664.0
25°	437.2	437.2	449.5	482.5	527.9	577.4	631.0	676.4	713.5	746.5	746.5
27.5°	441.3	445.4	461.9	503.1	560.9	622.7	697.0	750.6	800.1	829.0	833.1
30°	449.5	453.7	478.4	519.6	589.8	668.1	754.7	829.0	882.6	911.4	919.7
32.5°	453.7	457.8	490.8	540.3	618.6	709.4	808.3	903.2	977.4	1010.4	1022.8
35°	466.0	470.2	503.1	560.9	651.6	754.7	870.2	981.6	1068.2	1109.4	1117.6
37.5°	478.4	482.5	515.5	581.5	684.6	804.2	936.2	1064.0	1163.0	1212.5	1229.0
40°	486.7	490.8	527.9	606.3	721.7	857.8	1010.4	1150.6	1262.0	1323.9	1336.2
42.5°	499.0	503.1	544.4	626.9	754.7	911.4	1088.8	1245.5	1365.1	1435.2	1451.7
45°	511.4	515.5	560.9	651.6	791.8	969.2	1167.1	1356.8	1492.9	1575.4	1591.9
47.5°	523.8	527.9	577.4	676.4	829.0	1026.9	1249.6	1455.8	1620.8	1699.2	1732.1
50°	527.9	536.1	585.6	692.9	853.7	1076.4	1319.7	1554.8	1728.0	1831.1	1839.4
52.5°	532.0	540.3	593.9	705.2	874.3	1113.5	1377.5	1637.3	1839.4	1963.1	1954.9
55°	536.1	536.1	593.9	705.2	882.6	1138.3	1418.7	1690.9	1913.6	2012.6	2070.3
57.5°	519.6	523.8	585.6	697.0	878.4	1134.1	1418.7	1711.5	1942.5	2049.7	2091.0
60°	499.0	507.3	565.0	676.4	862.0	1121.8	1410.5	1703.3	1954.9	2070.3	2058.0
62.5°	470.2	486.7	536.1	647.5	837.2	1092.9	1398.1	1682.7	1926.0	2045.6	2033.2
65°	437.2	453.7	499.0	618.6	783.6	1022.8	1332.1	1641.4	1847.6	1983.7	1959.0
67.5°	404.2	416.5	461.9	569.1	721.7	948.6	1245.5	1550.7	1736.3	1884.7	1872.4
70°	367.1	371.2	416.5	511.4	659.9	874.3	1163.0	1422.8	1637.3	1748.6	1773.4
72.5°	321.7	321.7	367.1	449.5	585.6	775.3	1051.7	1278.5	1480.6	1575.4	1612.5
75°	263.9	268.1	305.2	379.4	490.8	664.0	894.9	1125.9	1295.0	1394.0	1406.3
77.5°	206.2	210.3	239.2	301.1	395.9	536.1	738.2	919.7	1080.5	1167.1	1142.4
80°	148.5	152.6	173.2	218.6	292.8	400.0	569.1	730.0	845.5	915.6	882.6
82.5°	90.7	94.9	107.2	136.1	185.6	259.8	387.7	507.3	598.0	655.7	643.4
85°	45.4	45.4	53.6	61.9	78.4	115.5	185.6	255.7	325.8	367.1	354.7
87.5°	8.2	12.4	12.4	12.4	12.4	8.2	12.4	12.4	12.4	20.6	8.2
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)