

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: P833537

Luminaire Tested: **TTN-D2-735-U-RW-CG-UPL2**

Issue Date: 5/15/2024

Test Information

Test Method: LM-79-08
Report Number: P833537
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-CG-UPL2
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
3500K, 70 CRI LEDS AND RECTANGULAR DISTRIBUTION WITH CLEAR GLASS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5125.8 lumens
Efficiency: N/A
Efficacy: 109.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')
IES Classification: Type II - Short
BUG Rating: B2 - U4 - G2

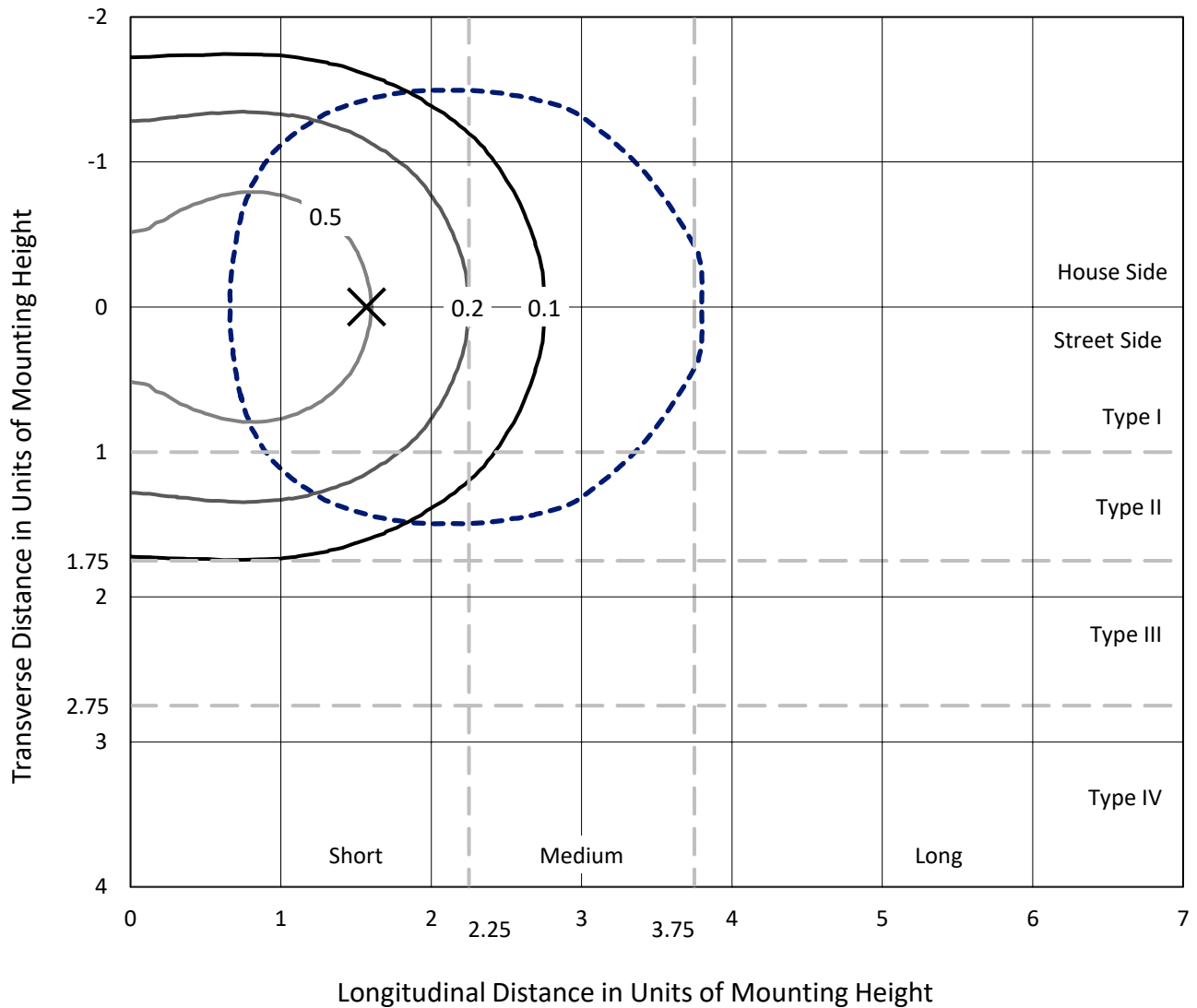
Input Watts (W): 47
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

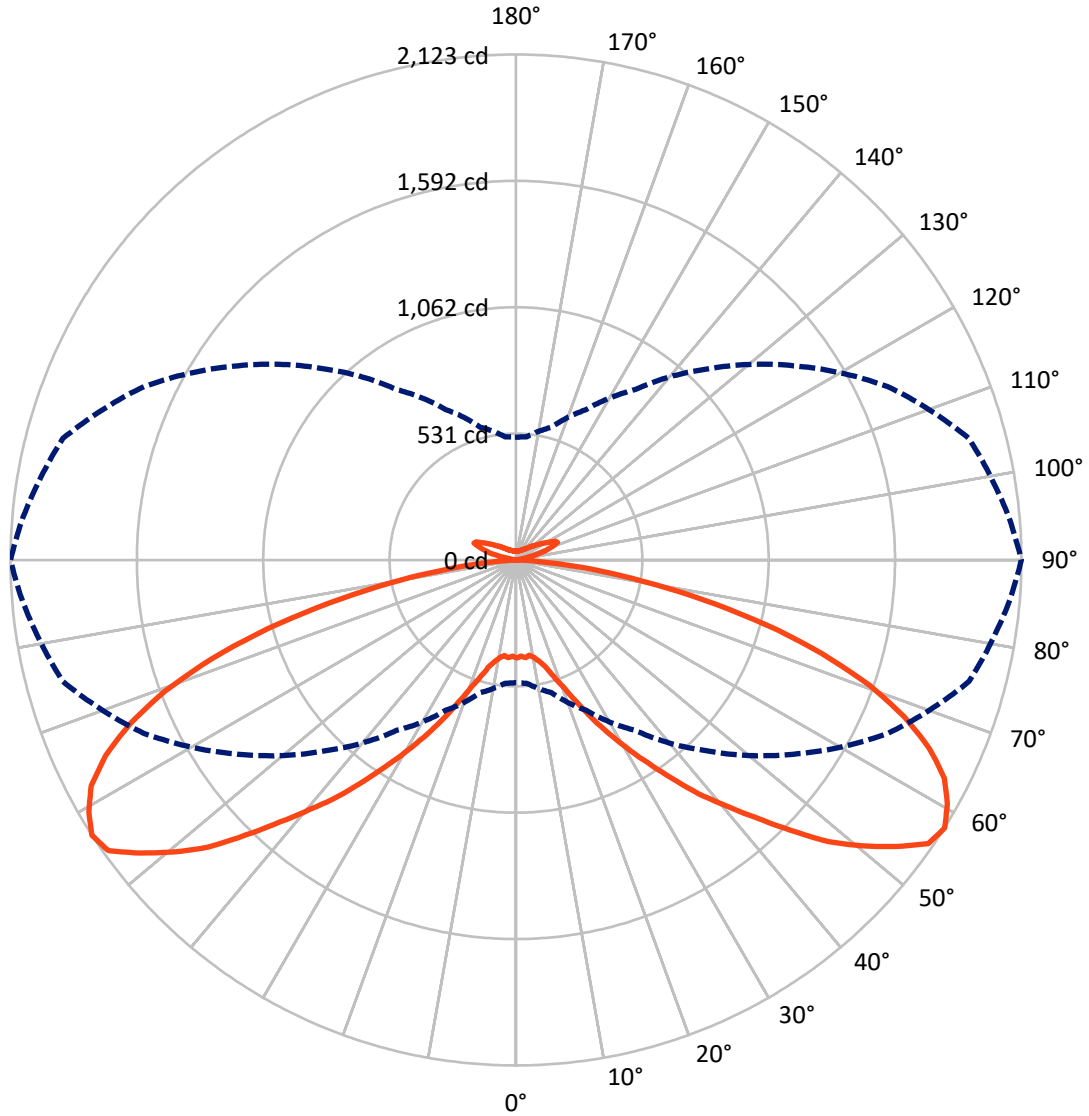
✕ Max cd
 - - - 1/2 Max cd



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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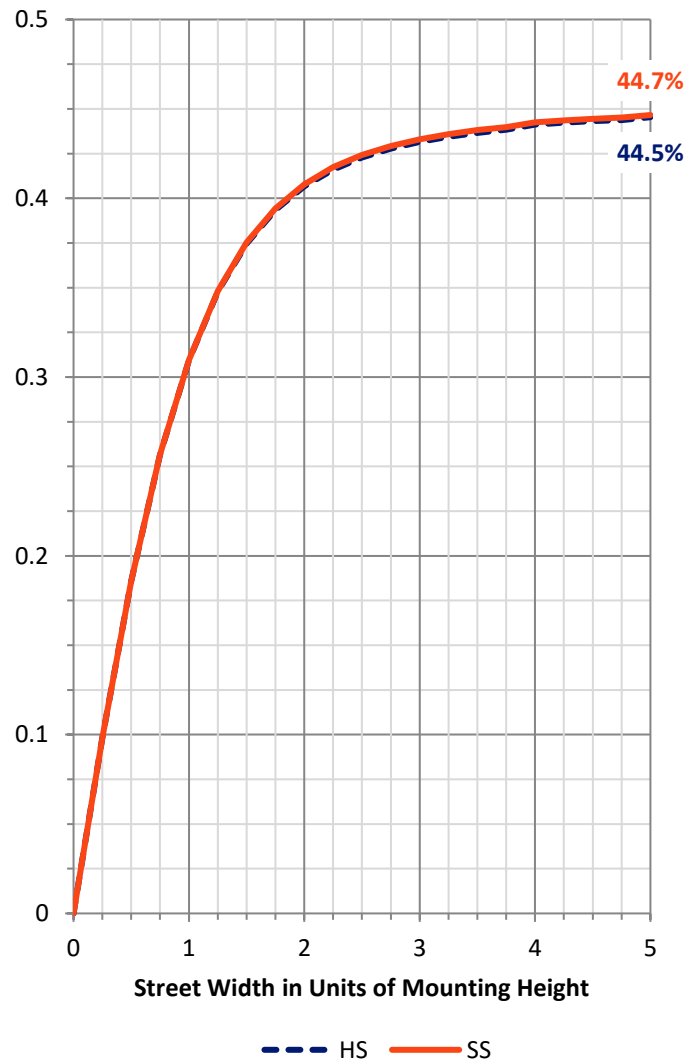
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2291.4	271.5	2562.9
	% Fixture	44.7	5.3	50.0
Street Side	Lumens	2291.4	271.5	2562.9
	% Fixture	44.7	5.3	50.0
Total	Lumens	4582.7	543.0	5125.8
	% Fixture	89.4	10.6	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.3	0.8
10°-20°	126.6	2.5
20°-30°	269.5	5.3
30°-40°	496.6	9.7
40°-50°	799.6	15.6
50°-60°	1082.3	21.1
60°-70°	1052.3	20.5
70°-80°	612.3	11.9
80°-90°	104.2	2.0
90°-100°	12.1	0.2
100°-110°	123.2	2.4
110°-120°	180.1	3.5
120°-130°	104.5	2.0
130°-140°	55.4	1.1
140°-150°	32.9	0.6
150°-160°	20.2	0.4
160°-170°	11.0	0.2
170°-180°	3.6	0.1
0°-90°	4582.7	89.4
0°-180°	5125.8	100.0



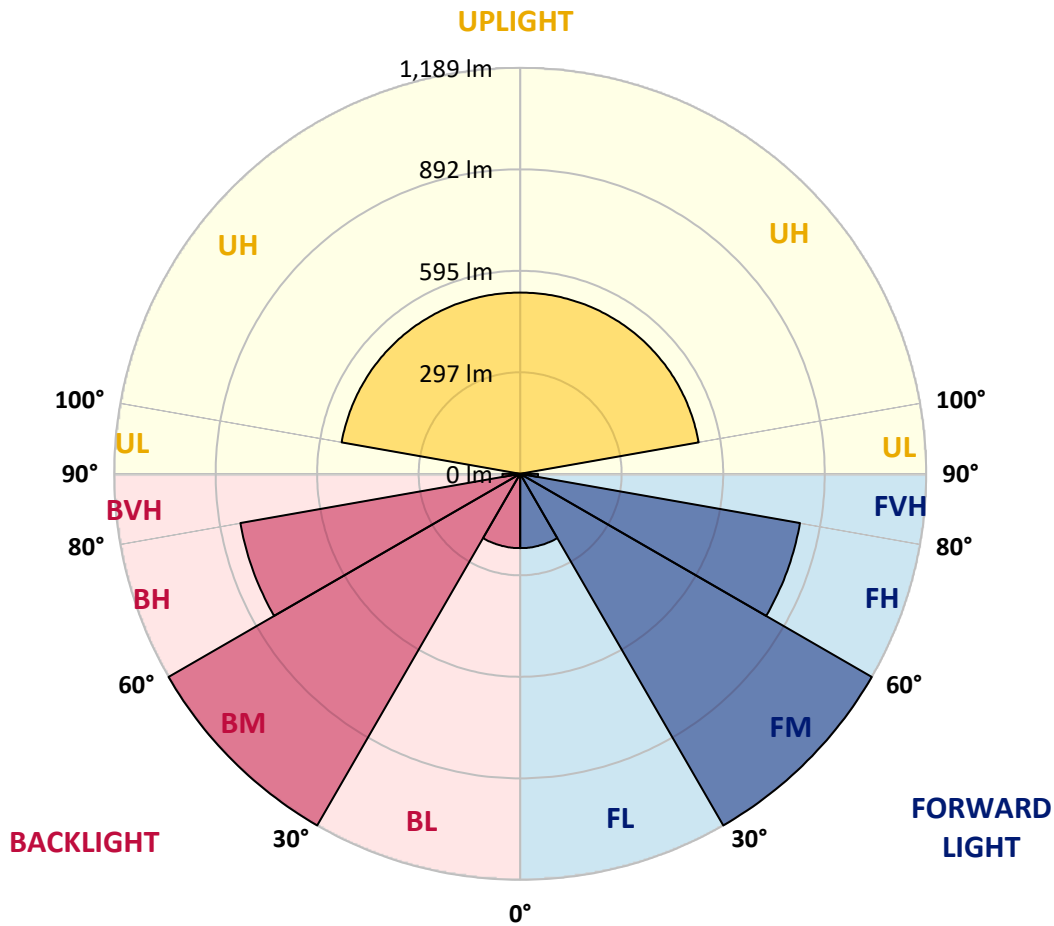
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	217.7	4.2			
FM (30°-60°)	1189.3	23.2			
FH (60°-80°)	832.3	16.2			G1/1800
FVH (80°-90°)	52.1	1.0			G1/100
BL (0°-30°)	217.7	4.2	B1/500		
BM (30°-60°)	1189.3	23.2	B2/2500		
BH (60°-80°)	832.3	16.2	B2/1000		G2/1000
BVH (80°-90°)	52.1	1.0			G1/100
UL (90°-100°)	12.1	0.2		U2/50	
UH (100°-180°)	530.9	10.4		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°	412.3	412.3	412.3	412.3	412.3	412.3	412.3	412.3	412.3	412.3	412.3
2.5°	412.3	412.3	412.3	412.3	408.1	408.1	408.1	404.0	404.0	404.0	404.0
5°	412.3	412.3	412.3	416.4	416.4	416.4	412.3	412.3	412.3	412.3	412.3
7.5°	412.3	416.4	416.4	412.3	412.3	408.1	408.1	408.1	404.0	404.0	404.0
10°	412.3	412.3	412.3	412.3	408.1	408.1	412.3	412.3	416.4	416.4	416.4
12.5°	408.1	408.1	412.3	412.3	412.3	416.4	424.6	428.8	432.9	437.0	437.0
15°	412.3	412.3	416.4	420.5	424.6	432.9	445.2	457.6	465.9	470.0	465.9
17.5°	412.3	416.4	420.5	428.8	441.1	453.5	474.1	490.6	507.1	511.2	515.3
20°	420.5	420.5	424.6	441.1	461.7	482.3	511.2	540.1	560.7	568.9	568.9
22.5°	424.6	428.8	432.9	453.5	486.5	519.5	560.7	593.7	622.5	639.0	643.1
25°	437.0	437.0	445.2	474.1	515.3	564.8	618.4	667.9	705.0	725.6	729.7
27.5°	445.2	449.4	461.7	498.8	552.4	614.3	688.5	746.2	791.5	816.3	820.4
30°	453.5	457.6	482.3	523.6	589.5	663.7	750.3	824.5	882.2	911.1	915.2
32.5°	465.9	470.0	498.8	544.2	622.5	713.2	812.2	902.9	985.3	1010.0	1014.2
35°	478.2	482.3	515.3	568.9	659.6	762.7	878.1	985.3	1084.3	1117.2	1125.5
37.5°	490.6	494.7	527.7	593.7	696.7	816.3	952.3	1080.1	1187.3	1232.7	1245.0
40°	503.0	507.1	544.2	618.4	733.8	874.0	1030.7	1170.8	1294.5	1348.1	1356.3
42.5°	511.2	515.3	556.6	639.0	770.9	927.6	1113.1	1269.8	1401.7	1471.8	1480.0
45°	523.6	527.7	573.0	667.9	803.9	989.4	1191.4	1381.1	1533.6	1611.9	1620.2
47.5°	531.8	535.9	585.4	684.4	841.0	1047.1	1273.9	1480.0	1661.4	1743.9	1768.6
50°	535.9	540.1	593.7	700.8	865.8	1088.4	1339.9	1579.0	1772.7	1875.8	1888.2
52.5°	535.9	544.2	597.8	713.2	882.2	1125.5	1393.4	1661.4	1879.9	1995.4	1999.5
55°	531.8	535.9	593.7	709.1	890.5	1142.0	1430.6	1710.9	1954.1	2065.4	2102.5
57.5°	515.3	519.5	577.2	696.7	874.0	1133.7	1422.3	1723.3	1970.6	2077.8	2123.2
60°	490.6	498.8	552.4	667.9	849.3	1104.9	1397.6	1698.5	1945.9	2077.8	2081.9
62.5°	461.7	465.9	519.5	630.8	812.2	1059.5	1352.2	1649.0	1888.2	2024.2	2020.1
65°	420.5	424.6	470.0	585.4	746.2	972.9	1261.5	1570.7	1776.9	1921.1	1908.8
67.5°	375.2	379.3	420.5	523.6	667.9	878.1	1137.8	1438.8	1620.2	1768.6	1760.4
70°	325.7	325.7	362.8	449.4	585.4	770.9	1001.8	1265.6	1447.0	1570.7	1574.8
72.5°	268.0	268.0	301.0	375.2	490.6	647.3	845.1	1080.1	1228.5	1335.7	1344.0
75°	210.3	206.1	235.0	296.8	387.5	515.3	667.9	869.9	985.3	1088.4	1084.3
77.5°	148.4	148.4	164.9	214.4	280.3	383.4	494.7	655.5	733.8	820.4	803.9
80°	94.8	94.8	103.1	140.2	185.5	255.6	325.7	445.2	498.8	564.8	544.2
82.5°	49.5	45.3	53.6	74.2	98.9	140.2	181.4	259.7	284.5	333.9	317.4
85°	16.5	16.5	16.5	24.7	37.1	53.6	70.1	111.3	115.4	148.4	136.0
87.5°	4.1	0.0	0.0	4.1	4.1	4.1	4.1	12.4	12.4	24.7	16.5
90°	4.6	4.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	4.6	4.6
92.5°	4.6	4.6	4.6	6.5	7.4	6.5	7.4	5.6	5.6	4.6	4.6
95°	5.6	5.6	6.5	8.4	10.2	11.1	11.1	6.5	6.5	5.6	5.6
97.5°	7.4	8.4	8.4	10.2	16.7	30.7	18.6	9.3	9.3	8.4	7.4
100°	12.1	13.0	13.0	23.2	49.2	66.0	47.4	24.2	17.7	13.0	13.0
102.5°	39.0	40.9	50.2	75.3	111.5	101.3	85.5	80.8	55.7	44.6	42.7
105°	99.4	98.5	105.9	125.4	156.1	153.3	141.2	128.2	110.6	102.2	102.2
107.5°	131.0	131.0	137.5	154.2	177.4	207.2	210.0	166.3	145.9	136.6	135.6
110°	147.7	147.7	153.3	167.2	197.9	239.7	237.8	205.3	180.2	168.2	166.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	151.4	152.4	159.8	181.2	214.6	233.2	224.8	211.8	200.7	191.4	189.5
115°	157.0	157.0	165.4	185.8	204.4	211.8	202.5	192.3	184.9	181.2	183.0
117.5°	155.1	157.9	159.8	170.9	183.0	188.6	183.9	170.0	164.4	162.6	159.8
120°	144.0	144.0	145.9	151.4	157.9	160.7	158.9	149.6	144.9	144.0	142.1
122.5°	128.2	129.1	128.2	131.0	135.6	138.4	136.6	129.1	127.3	127.3	125.4
125°	112.4	112.4	111.5	113.3	116.1	115.2	116.1	112.4	111.5	111.5	110.6
127.5°	101.3	100.3	98.5	99.4	100.3	100.3	101.3	97.5	98.5	99.4	98.5
130°	90.1	90.1	88.3	88.3	88.3	86.4	88.3	86.4	87.3	88.3	89.2
132.5°	79.9	79.9	77.1	76.2	76.2	76.2	77.1	76.2	78.0	79.9	79.9
135°	71.5	71.5	68.7	69.7	69.7	68.7	69.7	68.7	70.6	71.5	71.5
137.5°	65.0	65.0	63.2	63.2	63.2	62.2	63.2	63.2	64.1	66.0	66.9
140°	59.5	59.5	58.5	58.5	57.6	58.5	58.5	58.5	59.5	60.4	60.4
142.5°	56.7	55.7	54.8	53.9	54.8	54.8	54.8	53.9	54.8	56.7	56.7
145°	52.0	52.0	51.1	51.1	51.1	52.0	51.1	51.1	52.0	52.0	53.0
147.5°	49.2	49.2	48.3	49.2	49.2	49.2	49.2	48.3	49.2	49.2	50.2
150°	48.3	47.4	46.5	47.4	47.4	46.5	46.5	46.5	46.5	47.4	47.4
152.5°	45.5	45.5	44.6	45.5	44.6	44.6	44.6	44.6	44.6	45.5	46.5
155°	43.7	43.7	42.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7
157.5°	41.8	42.7	41.8	41.8	41.8	41.8	41.8	41.8	41.8	42.7	42.7
160°	40.9	40.9	40.9	40.9	39.9	39.9	39.9	40.9	40.9	40.9	41.8
162.5°	39.9	39.9	39.9	39.9	39.0	39.0	39.0	39.0	39.9	39.9	40.9
165°	39.9	39.0	39.0	39.0	38.1	38.1	38.1	38.1	39.0	39.9	39.0
167.5°	38.1	38.1	38.1	38.1	38.1	37.2	37.2	38.1	38.1	38.1	39.0
170°	38.1	38.1	37.2	37.2	37.2	37.2	37.2	37.2	37.2	37.2	38.1
172.5°	38.1	38.1	38.1	38.1	37.2	37.2	37.2	37.2	37.2	38.1	38.1
175°	38.1	38.1	38.1	38.1	37.2	37.2	37.2	38.1	38.1	38.1	37.2
177.5°	38.1	38.1	38.1	38.1	37.2	38.1	38.1	38.1	38.1	38.1	38.1
180°	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1

(END OF REPORT)