

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: P833687

Luminaire Tested: **TTN-D2-830-U-RW-CG-UPL2**

Issue Date: 5/15/2024

Test Information

Test Method: LM-79-08
Report Number: P833687
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-UPL2
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: 4865.8 lumens
Efficiency: N/A
Efficacy: 103.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')
IES Classification: Type II - Short
BUG Rating: B2 - U4 - G2

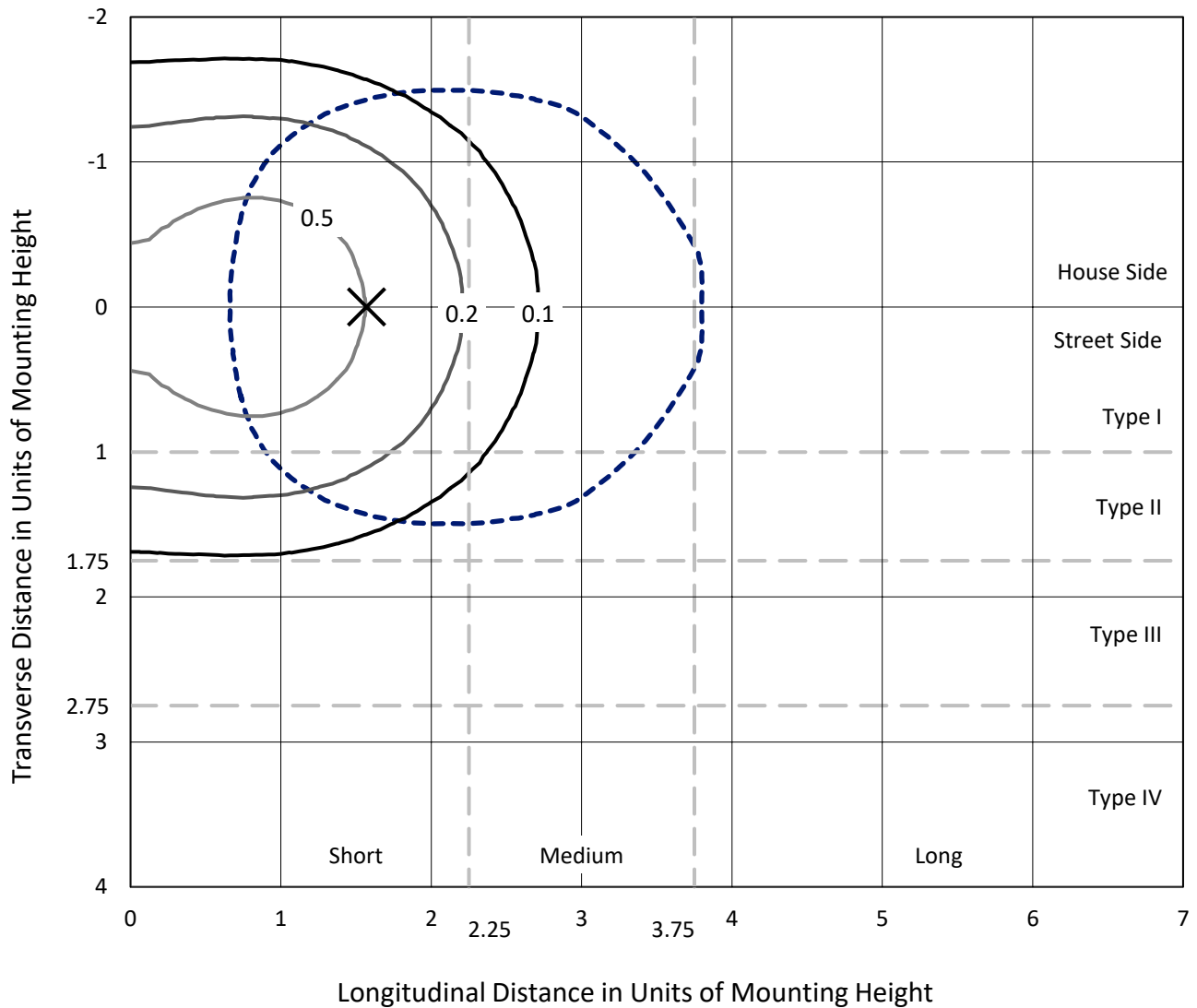
Input Watts (W): 47
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

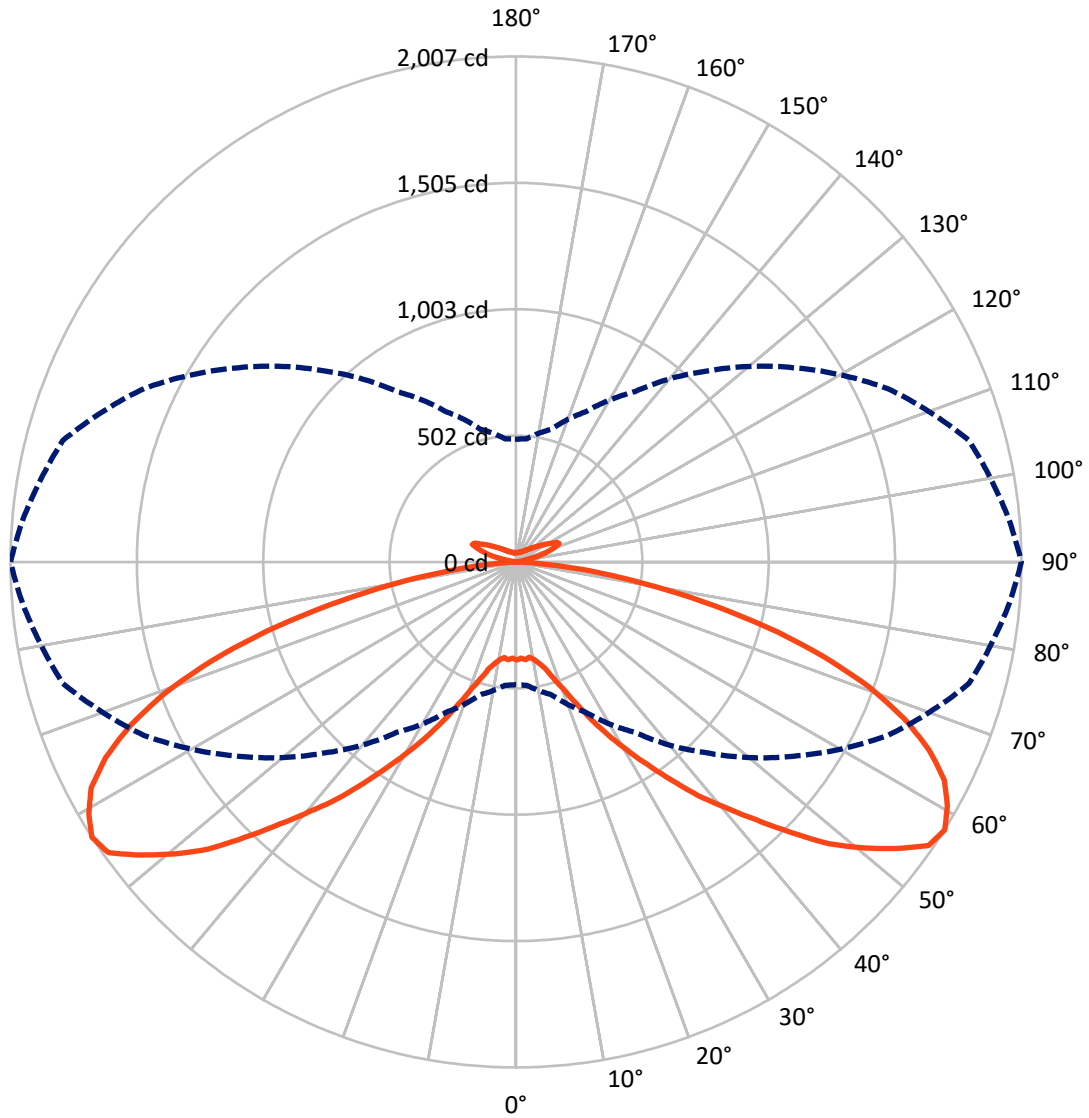
✕ Max cd
 - - - 1/2 Max cd



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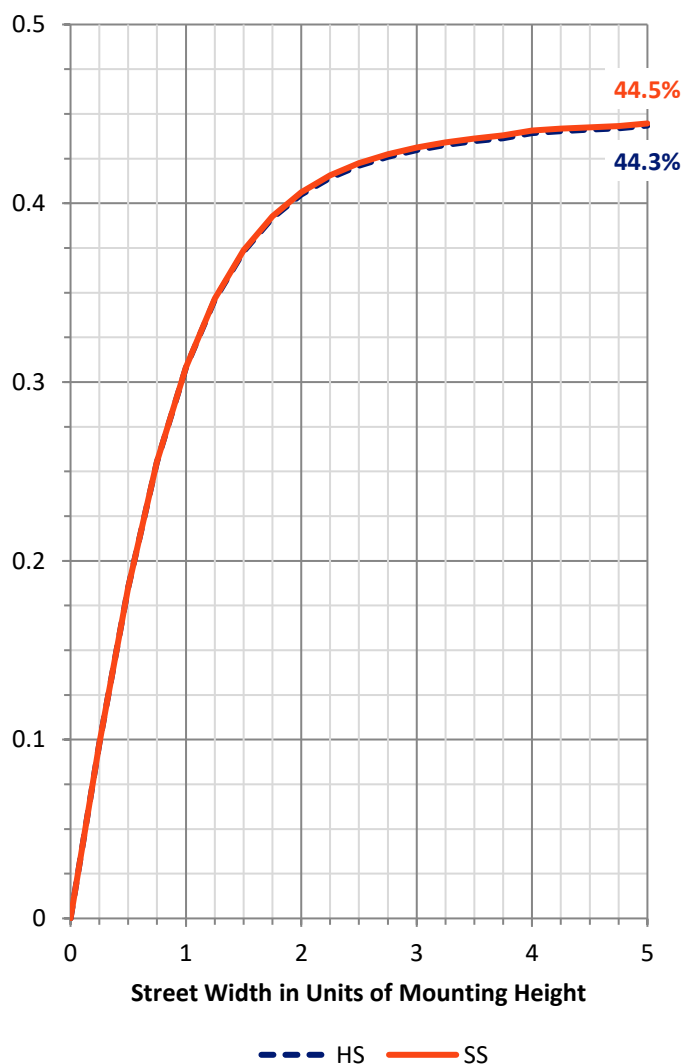
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2165.9	267.0	2432.9
	% Fixture	44.5	5.5	50.0
Street Side	Lumens	2165.9	267.0	2432.9
	% Fixture	44.5	5.5	50.0
Total	Lumens	4331.7	534.0	4865.8
	% Fixture	89.0	11.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.1	0.8
10°-20°	119.7	2.5
20°-30°	254.7	5.2
30°-40°	469.4	9.6
40°-50°	755.8	15.5
50°-60°	1023.0	21.0
60°-70°	994.7	20.4
70°-80°	578.7	11.9
80°-90°	98.6	2.0
90°-100°	11.9	0.2
100°-110°	121.1	2.5
110°-120°	177.1	3.6
120°-130°	102.8	2.1
130°-140°	54.4	1.1
140°-150°	32.3	0.7
150°-160°	19.9	0.4
160°-170°	10.9	0.2
170°-180°	3.5	0.1
0°-90°	4331.7	89.0
0°-180°	4865.8	100.0

Coefficient of Utilization



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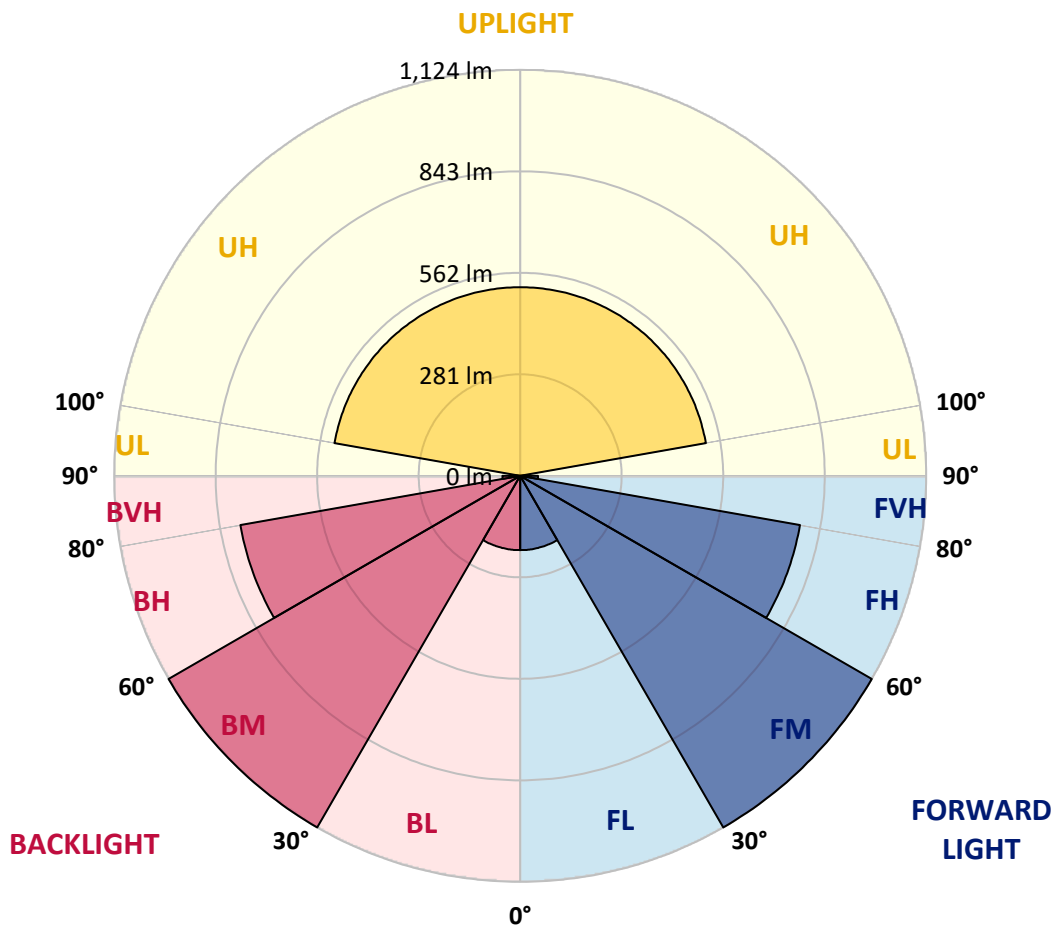
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	205.7	4.2			
FM (30°-60°)	1124.2	23.1			
FH (60°-80°)	786.7	16.2			G1/1800
FVH (80°-90°)	49.3	1.0			G1/100
BL (0°-30°)	205.7	4.2	B1/500		
BM (30°-60°)	1124.2	23.1	B2/2500		
BH (60°-80°)	786.7	16.2	B2/1000		G2/1000
BVH (80°-90°)	49.3	1.0			G1/100
UL (90°-100°)	11.9	0.2		U2/50	
UH (100°-180°)	522.1	10.7		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°	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°	4.6	4.6	5.5	5.5	5.5	5.5	5.5	5.5	5.5	4.6	4.6
92.5°	4.6	4.6	4.6	6.4	7.3	6.4	7.3	5.5	5.5	4.6	4.6
95°	5.5	5.5	6.4	8.2	10.1	11.0	11.0	6.4	6.4	5.5	5.5
97.5°	7.3	8.2	8.2	10.1	16.4	30.2	18.3	9.1	9.1	8.2	7.3
100°	11.9	12.8	12.8	22.8	48.4	64.9	46.6	23.8	17.4	12.8	12.8
102.5°	38.4	40.2	49.3	74.0	109.6	99.6	84.1	79.5	54.8	43.9	42.0
105°	97.8	96.8	104.2	123.3	153.5	150.8	138.9	126.1	108.7	100.5	100.5
107.5°	128.8	128.8	135.2	151.7	174.5	203.7	206.5	163.5	143.4	134.3	133.4
110°	145.3	145.3	150.8	164.5	194.6	235.7	233.9	201.9	177.3	165.4	163.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	148.9	149.8	157.1	178.2	211.1	229.3	221.1	208.3	197.4	188.2	186.4
115°	154.4	154.4	162.6	182.7	201.0	208.3	199.2	189.1	181.8	178.2	180.0
117.5°	152.6	155.3	157.1	168.1	180.0	185.5	180.9	167.2	161.7	159.9	157.1
120°	141.6	141.6	143.4	148.9	155.3	158.1	156.2	147.1	142.5	141.6	139.8
122.5°	126.1	127.0	126.1	128.8	133.4	136.1	134.3	127.0	125.2	125.2	123.3
125°	110.6	110.6	109.6	111.5	114.2	113.3	114.2	110.6	109.6	109.6	108.7
127.5°	99.6	98.7	96.8	97.8	98.7	98.7	99.6	95.9	96.8	97.8	96.8
130°	88.6	88.6	86.8	86.8	86.8	85.0	86.8	85.0	85.9	86.8	87.7
132.5°	78.6	78.6	75.8	74.9	74.9	74.9	75.8	74.9	76.7	78.6	78.6
135°	70.4	70.4	67.6	68.5	68.5	67.6	68.5	67.6	69.4	70.4	70.4
137.5°	64.0	64.0	62.1	62.1	62.1	61.2	62.1	62.1	63.0	64.9	65.8
140°	58.5	58.5	57.6	57.6	56.6	57.6	57.6	57.6	58.5	59.4	59.4
142.5°	55.7	54.8	53.9	53.0	53.9	53.9	53.9	53.0	53.9	55.7	55.7
145°	51.2	51.2	50.3	50.3	50.3	51.2	50.3	50.3	51.2	51.2	52.1
147.5°	48.4	48.4	47.5	48.4	48.4	48.4	48.4	47.5	48.4	48.4	49.3
150°	47.5	46.6	45.7	46.6	46.6	45.7	45.7	45.7	45.7	46.6	46.6
152.5°	44.8	44.8	43.9	44.8	43.9	43.9	43.9	43.9	43.9	44.8	45.7
155°	42.9	42.9	42.0	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9
157.5°	41.1	42.0	41.1	41.1	41.1	41.1	41.1	41.1	41.1	42.0	42.0
160°	40.2	40.2	40.2	40.2	39.3	39.3	39.3	40.2	40.2	40.2	41.1
162.5°	39.3	39.3	39.3	39.3	38.4	38.4	38.4	38.4	39.3	39.3	40.2
165°	39.3	38.4	38.4	38.4	37.5	37.5	37.5	37.5	38.4	39.3	38.4
167.5°	37.5	37.5	37.5	37.5	37.5	36.5	36.5	37.5	37.5	37.5	38.4
170°	37.5	37.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	37.5
172.5°	37.5	37.5	37.5	37.5	36.5	36.5	36.5	36.5	36.5	37.5	37.5
175°	37.5	37.5	37.5	37.5	36.5	36.5	36.5	37.5	37.5	37.5	36.5
177.5°	37.5	37.5	37.5	37.5	36.5	37.5	37.5	37.5	37.5	37.5	37.5
180°	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5

(END OF REPORT)