

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: P833699

Luminaire Tested: **TTN-D2-830-U-WQ-UPL2**

Issue Date: 5/15/2024

Test Information

Test Method: LM-79-08
Report Number: P833699
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-WQ-UPL2
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
3000K, 80 CRI LEDS AND WIDE DISTRIBUTION
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5270.8 lumens
Efficiency: N/A
Efficacy: 112.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')
IES Classification: Type V - Short
BUG Rating: B2 - U4 - G2

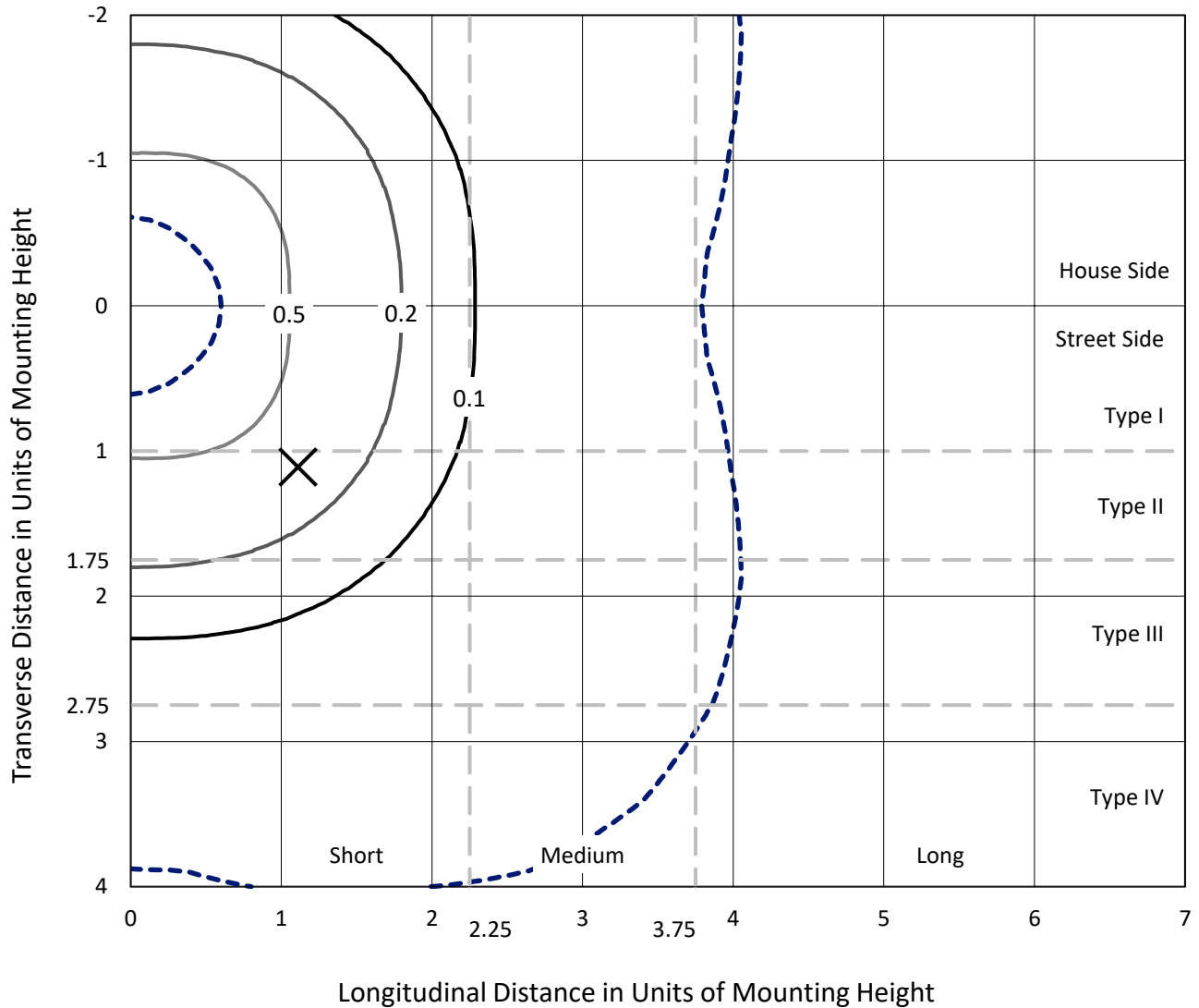
Input Watts (W): 47
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

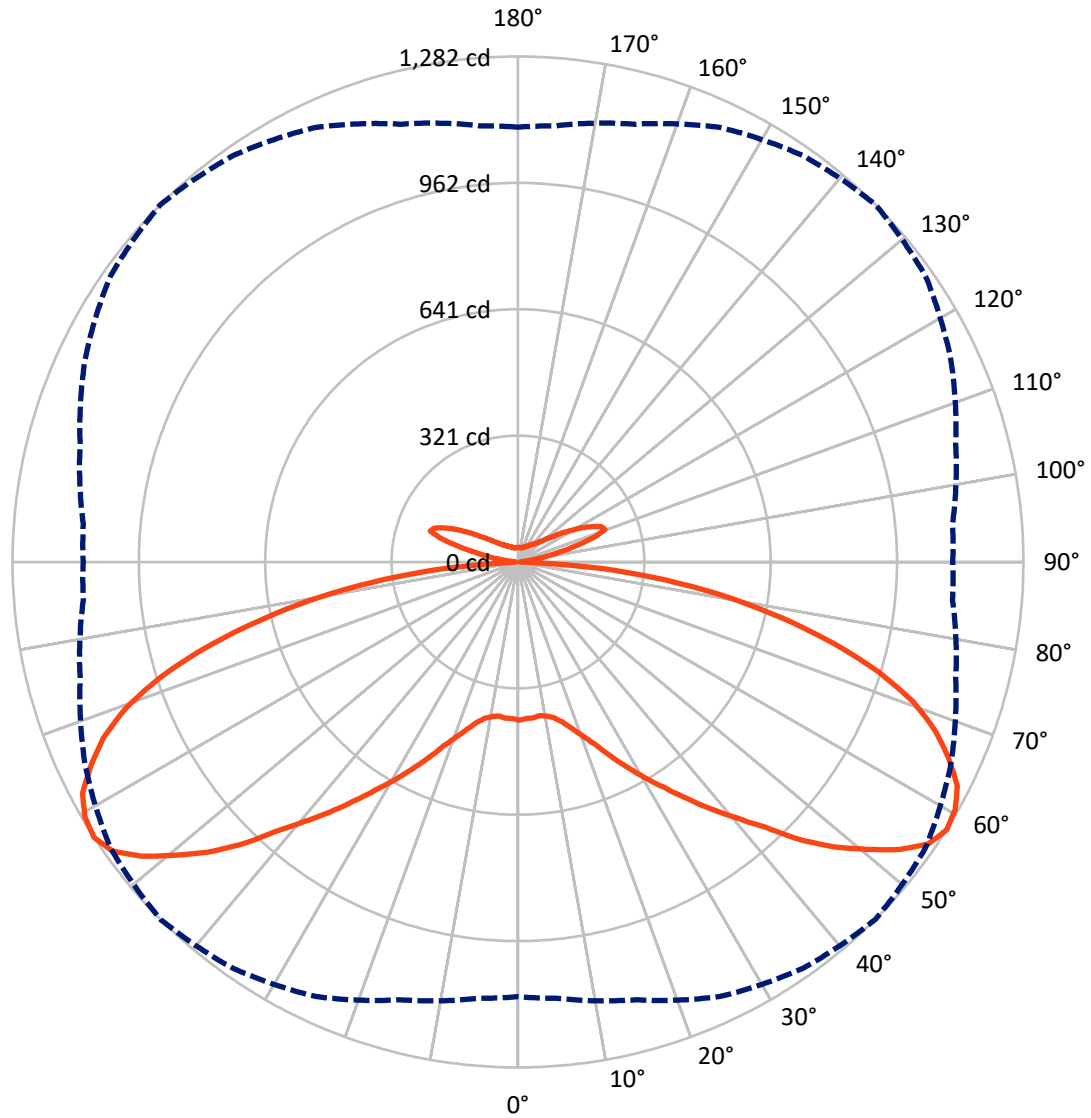
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.7 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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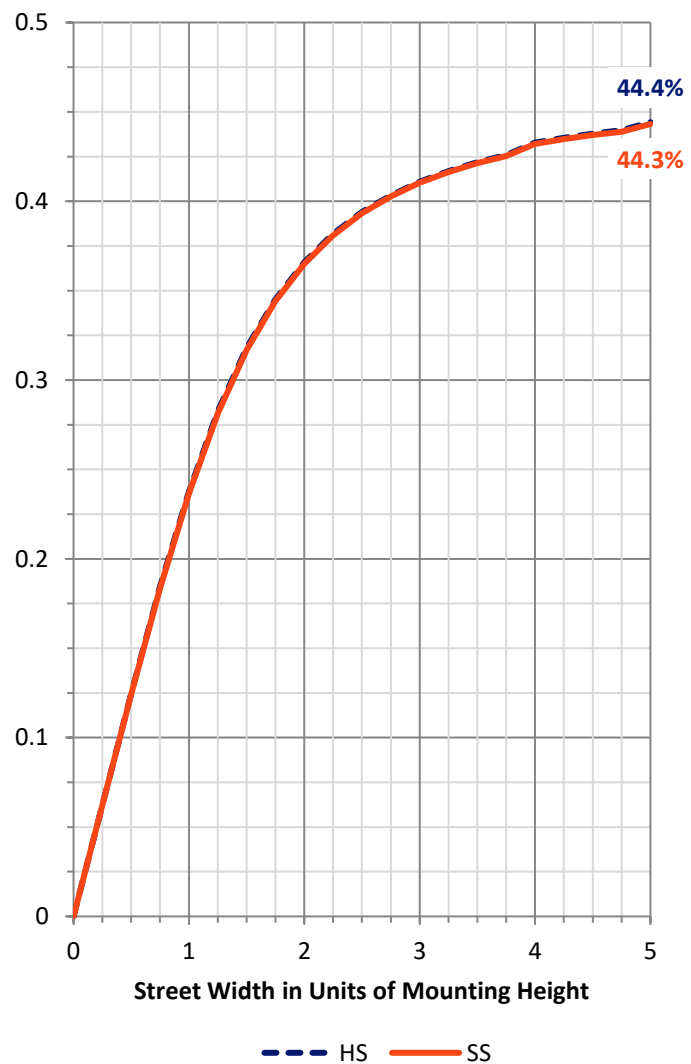
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2368.4	267.0	2635.4
	% Fixture	44.9	5.1	50.0
Street Side	Lumens	2368.4	267.0	2635.4
	% Fixture	44.9	5.1	50.0
Total	Lumens	4736.7	534.0	5270.8
	% Fixture	89.9	10.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.7	0.7
10°-20°	120.4	2.3
20°-30°	252.6	4.8
30°-40°	458.4	8.7
40°-50°	747.2	14.2
50°-60°	1045.9	19.8
60°-70°	1091.8	20.7
70°-80°	780.1	14.8
80°-90°	202.6	3.8
90°-100°	11.9	0.2
100°-110°	121.1	2.3
110°-120°	177.1	3.4
120°-130°	102.8	1.9
130°-140°	54.4	1.0
140°-150°	32.3	0.6
150°-160°	19.9	0.4
160°-170°	10.9	0.2
170°-180°	3.5	0.1
0°-90°	4736.7	89.9
0°-180°	5270.8	100.0

Coefficient of Utilization



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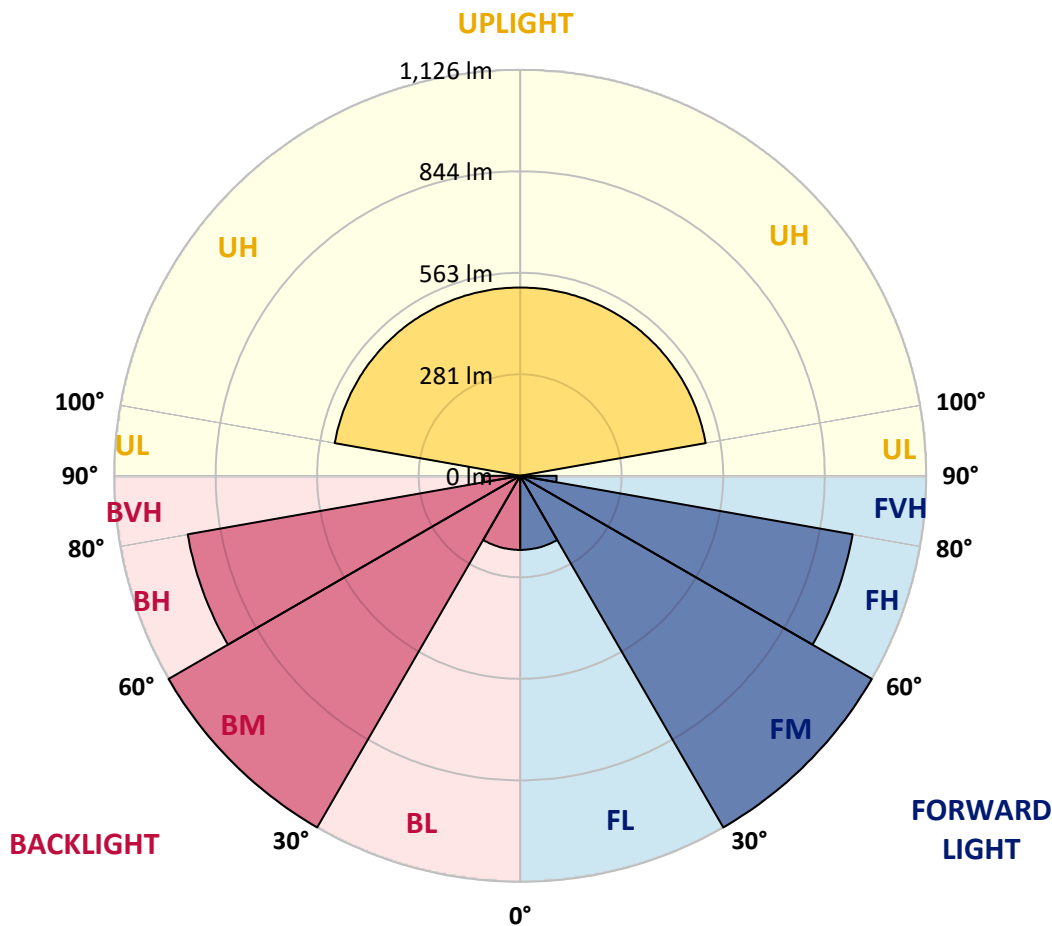
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	205.4	3.9			
FM (30°-60°)	1125.7	21.4			
FH (60°-80°)	936.0	17.8			G1/1800
FVH (80°-90°)	101.3	1.9			G2/225
BL (0°-30°)	205.4	3.9	B1/500		
BM (30°-60°)	1125.7	21.4	B2/2500		
BH (60°-80°)	936.0	17.8	B2/1000		G1/1800
BVH (80°-90°)	101.3	1.9			G2/225
UL (90°-100°)	11.9	0.2		U2/50	
UH (100°-180°)	522.1	9.9		U4/1000	

BUG Rating: B2-U4-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	401.4	401.4	401.4	401.4	401.4	401.4	401.4	401.4	401.4	401.4	401.4
2.5°	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5
5°	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5
7.5°	389.7	389.7	393.6	393.6	393.6	393.6	393.6	393.6	393.6	393.6	393.6
10°	389.7	389.7	393.6	393.6	397.5	397.5	397.5	393.6	393.6	389.7	389.7
12.5°	397.5	397.5	397.5	401.4	405.3	405.3	405.3	401.4	401.4	397.5	397.5
15°	409.2	413.1	413.1	417.0	420.9	420.9	420.9	417.0	417.0	413.1	413.1
17.5°	432.6	432.6	432.6	436.5	440.4	444.3	444.3	436.5	436.5	432.6	436.5
20°	456.0	459.9	459.9	463.8	467.7	471.6	467.7	463.8	459.9	459.9	459.9
22.5°	491.1	491.1	495.0	495.0	502.8	502.8	502.8	495.0	495.0	495.0	495.0
25°	530.1	530.1	534.0	537.9	545.6	545.6	541.8	534.0	534.0	534.0	537.9
27.5°	576.8	576.8	580.7	580.7	588.5	588.5	584.6	580.7	580.7	580.7	584.6
30°	619.7	619.7	627.5	631.4	635.3	635.3	635.3	627.5	627.5	623.6	623.6
32.5°	658.7	662.6	666.5	678.2	686.0	682.1	686.0	678.2	670.4	666.5	666.5
35°	701.5	705.4	713.2	724.9	736.6	736.6	736.6	724.9	717.1	709.3	713.2
37.5°	752.2	752.2	763.9	775.6	791.2	795.1	791.2	779.5	767.8	760.0	760.0
40°	806.8	806.8	818.5	830.2	849.7	853.5	849.7	834.1	818.5	814.6	814.6
42.5°	861.3	861.3	876.9	888.6	912.0	919.8	912.0	892.5	876.9	865.2	869.1
45°	919.8	923.7	943.2	966.6	993.9	1005.6	993.9	970.5	947.1	923.7	923.7
47.5°	986.1	986.1	1009.4	1036.7	1067.9	1079.6	1064.0	1040.6	1009.4	990.0	990.0
50°	1028.9	1032.8	1064.0	1099.1	1138.1	1145.9	1134.2	1099.1	1064.0	1036.7	1032.8
52.5°	1071.8	1075.7	1110.8	1161.5	1200.4	1212.1	1196.5	1161.5	1110.8	1075.7	1075.7
55°	1099.1	1106.9	1145.9	1200.4	1243.3	1262.8	1239.4	1200.4	1142.0	1103.0	1099.1
57.5°	1103.0	1110.8	1149.8	1216.0	1258.9	1282.3	1262.8	1212.1	1149.8	1106.9	1103.0
60°	1095.2	1099.1	1138.1	1208.2	1258.9	1274.5	1258.9	1204.3	1134.2	1099.1	1091.3
62.5°	1075.7	1083.5	1122.5	1180.9	1239.4	1251.1	1235.5	1177.0	1118.6	1075.7	1067.9
65°	1013.3	1021.1	1079.6	1138.1	1188.7	1200.4	1188.7	1138.1	1075.7	1013.3	1005.6
67.5°	943.2	947.1	1005.6	1075.7	1122.5	1142.0	1122.5	1079.6	1001.7	943.2	935.4
70°	869.1	873.0	919.8	993.9	1040.6	1064.0	1044.5	997.8	915.9	865.2	861.3
72.5°	783.4	783.4	830.2	888.6	935.4	958.8	943.2	884.7	822.4	771.7	763.9
75°	666.5	670.4	721.0	763.9	814.6	830.2	814.6	767.8	709.3	658.7	650.9
77.5°	545.6	549.5	592.4	627.5	674.3	686.0	674.3	635.3	580.7	537.9	534.0
80°	413.1	417.0	452.1	483.3	522.3	537.9	526.2	487.2	444.3	405.3	393.6
82.5°	268.9	272.8	307.9	331.3	366.4	378.1	370.3	335.2	300.1	261.1	257.2
85°	120.8	124.7	155.9	175.4	202.7	214.4	206.6	175.4	148.1	113.0	105.2
87.5°	11.7	11.7	11.7	11.7	11.7	15.6	15.6	11.7	11.7	11.7	11.7
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)