

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: P821337

Luminaire Tested: **TT-D1-750-24VDC-CQ-UPL**

Issue Date: 7/23/2020

Test Information

Test Method: LM-79-08
Report Number: P821337
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G2-2002-677-3) AND
Test Lab: INNOVATION CENTER
Issue Date: 7/23/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-D1-750-24VDC-CQ-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT WITH UPLIGHT
5000K, 70 CRI LEDS AND CONCENTRATED DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

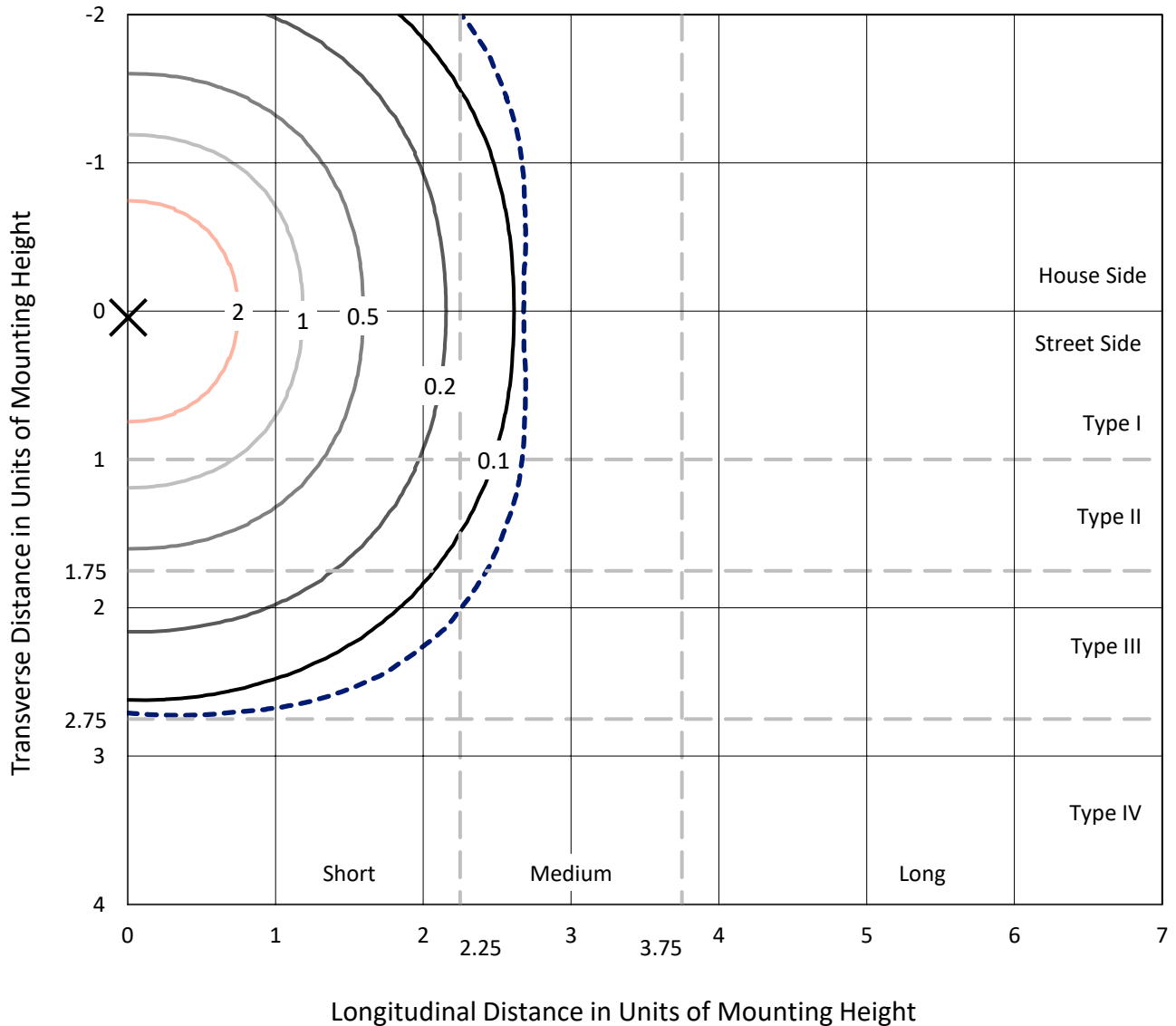
Lumens per Lamp: N/A
Luminaire Lumens: 4732.4 lumens
Efficiency: N/A
Efficacy: 169.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short
BUG Rating: B1 - U4 - G1

Input Watts (W): 28
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: 25 FT

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Iso-Footcandle Lines of Horizontal Illumination

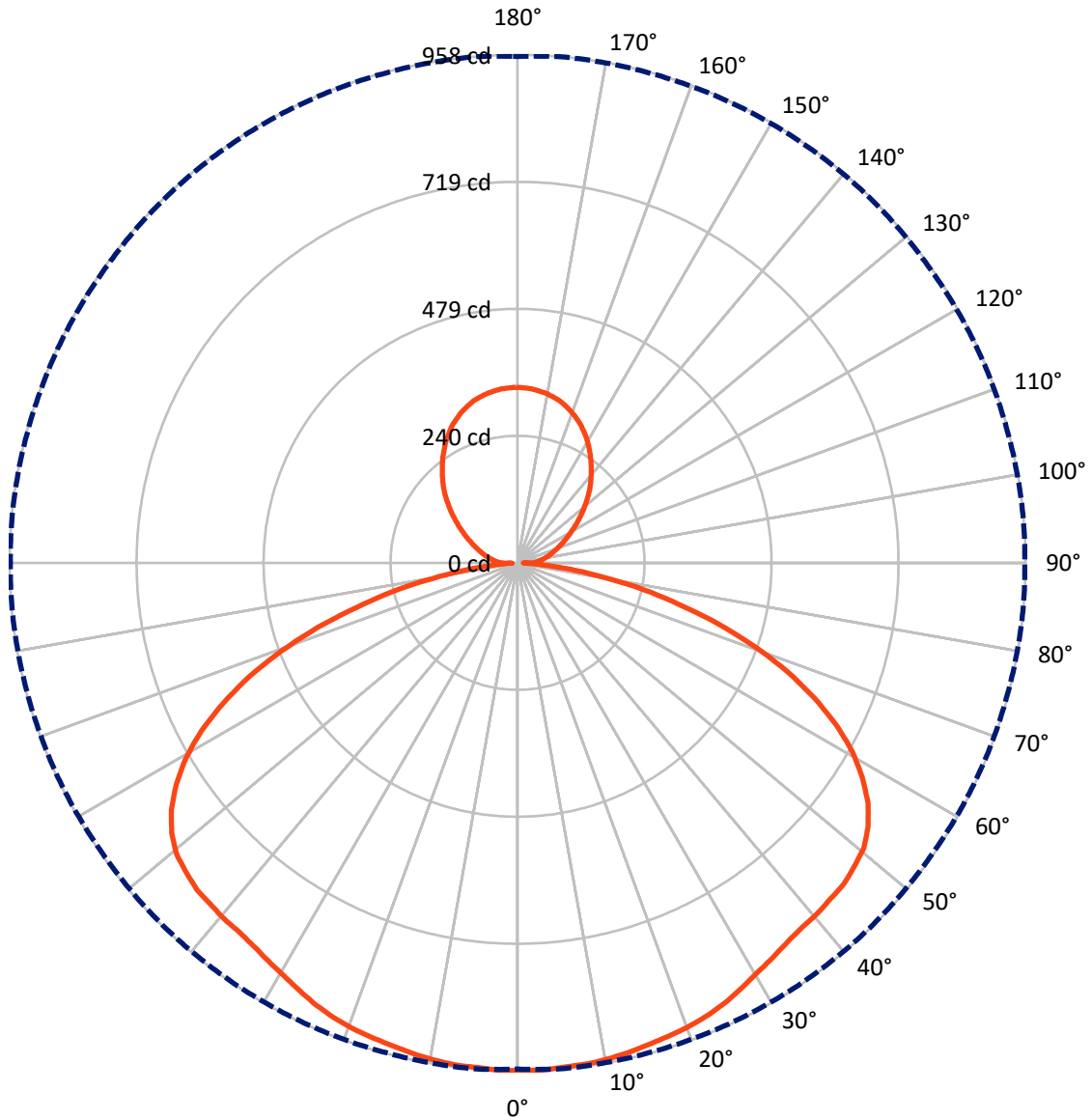
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 4.3 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 5-Deg Lateral - - - Horizontal Cone Through 2.5-Deg Vertical

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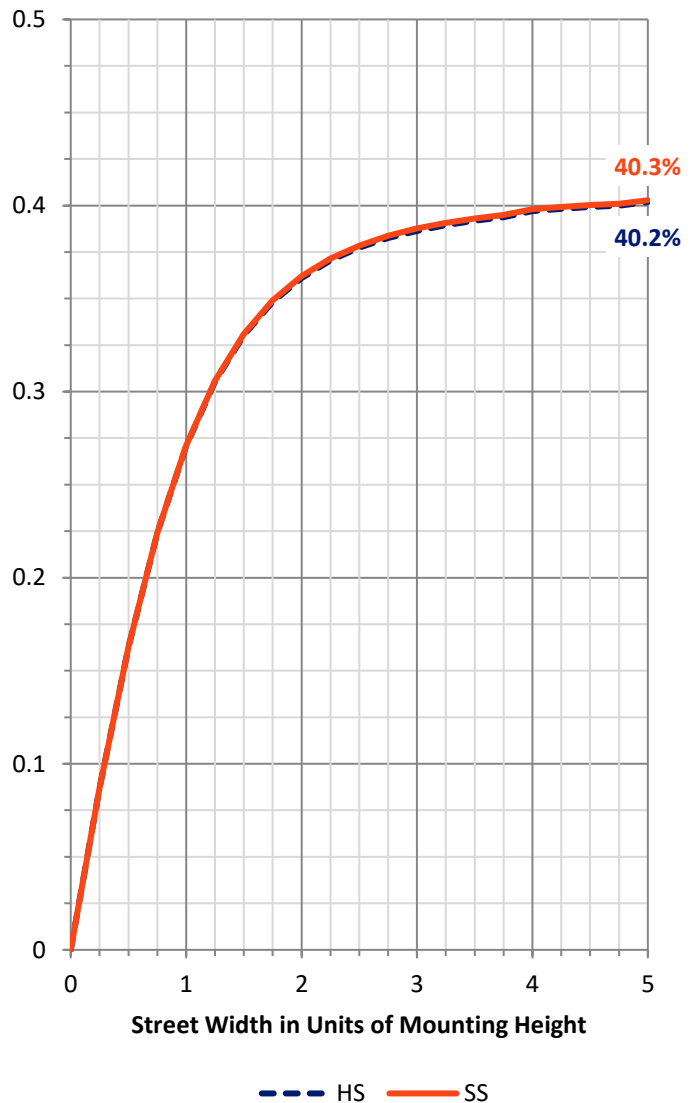
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1916.2	450.0	2366.2
	% Fixture	40.5	9.5	50.0
Street Side	Lumens	1916.2	450.0	2366.2
	% Fixture	40.5	9.5	50.0
Total	Lumens	3832.3	900.0	4732.4
	% Fixture	81.0	19.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.1	1.9
10°-20°	266.7	5.6
20°-30°	424.2	9.0
30°-40°	558.0	11.8
40°-50°	683.0	14.4
50°-60°	739.8	15.6
60°-70°	636.4	13.4
70°-80°	357.8	7.6
80°-90°	75.3	1.6
90°-100°	46.1	1.0
100°-110°	71.4	1.5
110°-120°	99.4	2.1
120°-130°	128.8	2.7
130°-140°	150.0	3.2
140°-150°	152.1	3.2
150°-160°	131.9	2.8
160°-170°	89.0	1.9
170°-180°	31.3	0.7
0°-90°	3832.3	81.0
0°-180°	4732.4	100.0

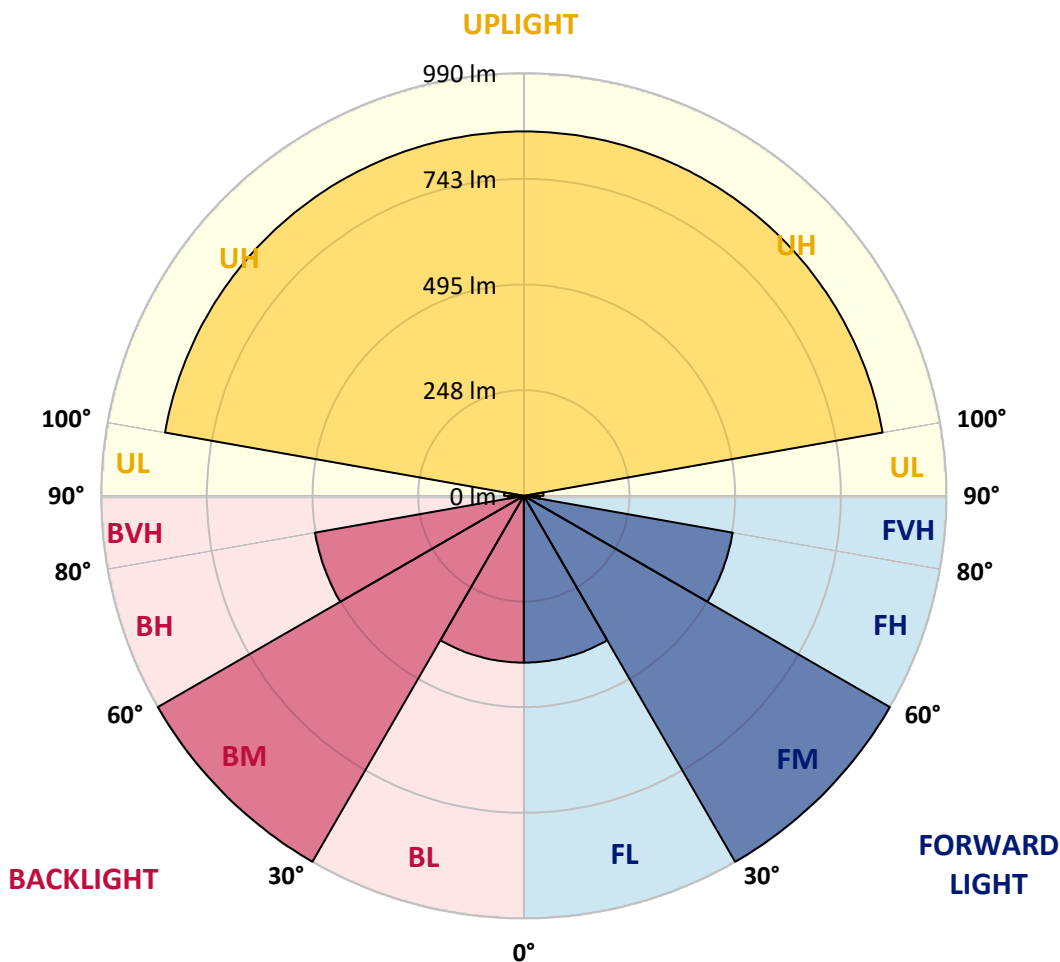


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	391.0	8.3			
FM (30°-60°)	990.4	20.9			
FH (60°-80°)	497.1	10.5			G0/660
FVH (80°-90°)	37.6	0.8			G1/100
BL (0°-30°)	391.0	8.3	B1/500		
BM (30°-60°)	990.4	20.9	B1/1000		
BH (60°-80°)	497.1	10.5	B1/500		G0/660
BVH (80°-90°)	37.6	0.8			G1/100
UL (90°-100°)	46.1	1.0		U2/50	
UH (100°-180°)	853.9	18.0		U4/1000	

BUG Rating: B1-U4-G1
 Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	957.7	957.7	957.7	957.7	957.7	957.7	957.7	957.7	957.7	957.7	957.7
2.5°	955.2	958.3	957.0	957.0	957.0	957.0	955.8	957.0	957.0	957.7	957.0
5°	955.8	955.2	955.2	955.8	955.8	956.4	955.2	955.8	956.4	956.4	957.0
7.5°	954.0	954.6	953.4	954.6	953.4	954.0	954.0	954.6	954.0	954.6	955.8
10°	950.3	951.0	950.3	950.3	950.3	951.6	949.1	951.0	950.3	951.0	950.3
12.5°	943.6	946.7	945.5	946.7	946.7	946.7	944.9	946.1	946.7	946.7	946.7
15°	940.6	941.2	939.4	941.8	942.4	943.0	940.6	941.8	941.8	942.4	943.0
17.5°	933.9	936.9	936.3	938.2	937.6	939.4	938.8	938.2	937.6	938.8	937.6
20°	929.0	932.1	931.5	933.3	933.9	935.7	933.9	933.9	932.1	932.7	934.5
22.5°	924.1	925.4	925.4	927.2	927.2	929.0	927.2	926.6	926.6	926.0	927.8
25°	916.2	916.8	916.2	918.1	919.3	920.5	919.9	918.7	918.1	918.1	917.4
27.5°	903.4	905.9	907.1	909.5	910.1	912.0	909.5	909.5	908.3	907.1	907.7
30°	893.7	894.9	894.9	900.4	900.4	903.4	900.4	899.8	899.2	898.6	897.3
32.5°	884.6	886.4	888.2	892.5	895.5	896.7	894.9	893.7	890.6	888.8	888.2
35°	877.2	877.8	881.5	887.6	891.3	894.3	891.9	888.8	884.6	881.5	883.9
37.5°	871.8	872.4	877.8	885.8	892.5	894.9	891.3	886.4	879.7	876.0	874.8
40°	866.9	870.5	876.6	887.6	894.9	898.6	895.5	888.8	879.1	871.8	871.1
42.5°	864.4	866.3	875.4	888.2	898.6	903.4	899.2	890.0	877.8	869.3	868.7
45°	858.4	863.8	872.4	888.8	900.4	906.5	900.4	888.8	874.2	864.4	862.6
47.5°	853.5	855.3	868.7	887.6	901.6	906.5	900.4	885.8	867.5	854.7	853.5
50°	841.9	846.2	859.6	879.7	896.1	901.0	893.7	874.2	853.5	839.5	837.0
52.5°	824.2	827.9	843.7	868.7	884.6	890.0	879.1	858.4	834.0	816.9	816.9
55°	796.8	802.3	818.8	844.3	864.4	869.3	856.5	834.6	807.2	790.1	789.5
57.5°	763.9	767.6	785.3	813.3	832.8	840.1	827.3	802.9	775.5	755.4	753.6
60°	721.3	726.2	745.0	771.8	792.0	798.0	787.1	762.7	734.7	713.4	713.4
62.5°	670.1	675.6	694.5	721.9	742.6	751.7	736.5	713.4	684.1	663.4	661.6
65°	610.4	615.3	632.3	661.0	682.3	689.0	677.4	653.1	625.0	605.5	603.7
67.5°	543.4	550.1	567.2	591.5	609.8	618.3	611.0	589.1	559.8	539.7	537.9
70°	470.9	475.8	489.2	511.7	532.4	538.5	527.6	512.9	485.5	467.3	464.8
72.5°	393.5	397.8	408.8	430.1	444.7	452.6	446.5	427.7	405.7	390.5	392.9
75°	315.6	315.0	327.1	342.4	355.8	361.3	357.0	344.8	324.7	311.9	311.3
77.5°	237.6	243.7	247.9	260.7	271.7	276.0	269.9	260.1	244.9	234.5	236.4
80°	166.9	163.3	171.2	179.1	186.4	190.7	187.0	181.5	171.2	163.3	162.0
82.5°	102.3	99.3	103.0	110.3	115.1	116.4	117.0	110.3	106.0	99.9	101.1
85°	45.1	45.7	48.7	53.6	54.2	54.8	54.8	53.6	48.7	48.1	46.9
87.5°	11.0	11.0	11.6	13.4	13.4	14.0	14.0	12.2	11.6	10.4	11.0
90°	32.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5
92.5°	37.6	37.1	37.1	36.6	36.6	36.6	36.6	36.6	36.6	36.6	36.6
95°	42.7	42.7	42.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7
97.5°	48.3	48.3	48.3	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8
100°	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9
102.5°	60.5	60.5	60.5	60.5	60.5	60.5	60.5	61.0	60.5	60.5	60.5
105°	67.1	67.1	67.1	67.1	67.1	67.1	67.1	68.1	67.1	67.1	67.1
107.5°	74.2	74.2	74.7	74.7	74.7	74.7	74.7	75.2	74.7	74.7	74.7
110°	81.3	81.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	89.9	89.9	90.9	90.9	90.9	90.9	91.4	91.4	90.9	90.9	90.9
115°	98.6	98.6	99.6	99.6	99.6	99.6	100.6	100.6	99.6	99.6	99.6
117.5°	108.8	108.8	109.2	109.8	109.8	109.8	110.8	110.8	109.8	109.8	109.8
120°	118.9	118.9	118.9	119.9	119.9	119.9	121.0	121.0	119.9	119.9	119.9
122.5°	130.6	130.6	131.1	131.6	131.6	131.6	132.6	132.6	132.1	132.1	131.6
125°	142.3	142.3	143.3	143.3	143.3	143.3	144.3	144.3	144.3	144.3	143.3
127.5°	155.0	155.0	156.0	156.0	156.0	156.0	157.0	157.0	157.0	157.0	156.0
130°	167.7	167.7	168.7	168.7	168.7	168.7	169.7	169.7	169.7	169.7	168.7
132.5°	180.9	180.9	181.4	181.4	181.4	181.9	182.4	182.4	182.4	182.4	181.9
135°	194.1	194.1	194.1	194.1	194.1	195.1	195.1	195.1	195.1	195.1	195.1
137.5°	206.8	206.3	206.8	206.3	206.8	207.3	207.3	207.3	207.3	207.3	207.3
140°	219.5	218.5	219.5	218.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5
142.5°	231.2	230.7	231.2	230.2	231.2	231.2	231.2	231.2	231.2	231.2	231.2
145°	242.9	242.9	242.9	241.9	242.9	242.9	242.9	242.9	242.9	242.9	242.9
147.5°	255.1	254.6	255.1	254.1	255.1	255.1	255.1	255.1	255.1	255.1	255.1
150°	267.3	266.3	267.3	266.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3
152.5°	277.0	276.5	277.5	276.5	277.0	277.0	277.5	277.0	277.0	277.0	277.0
155°	286.6	286.6	287.6	286.6	286.6	286.6	287.6	286.6	286.6	286.6	286.6
157.5°	294.8	294.8	295.8	294.8	294.8	294.8	295.8	294.8	294.8	294.8	294.8
160°	302.9	302.9	303.9	302.9	302.9	302.9	303.9	302.9	302.9	302.9	302.9
162.5°	309.5	309.5	310.5	309.5	309.5	309.5	310.5	309.5	309.5	309.5	309.5
165°	316.1	316.1	317.1	316.1	316.1	316.1	317.1	316.1	316.1	316.1	316.1
167.5°	320.2	320.2	321.2	320.2	320.2	320.2	321.2	320.2	320.2	320.2	320.2
170°	324.2	324.2	325.2	324.2	324.2	324.2	325.2	324.2	324.2	324.2	324.2
172.5°	326.8	326.8	327.8	326.8	327.2	326.8	327.8	326.8	326.8	326.8	326.8
175°	329.3	329.3	330.3	329.3	330.3	329.3	330.3	329.3	329.3	329.3	329.3
177.5°	330.3	330.3	330.8	330.3	330.8	330.3	330.8	330.3	330.3	330.3	330.3
180°	331.3	331.3	331.3	331.3	331.3	331.3	331.3	331.3	331.3	331.3	331.3

(END OF REPORT)