

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: P823347

Luminaire Tested: **TTN-D1-830-U-DL**

Issue Date: 4/16/2024

Test Information

Test Method: LM-79-08
Report Number: P823347
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2312-254-11)
Test Lab: INNOVATION CENTER
Issue Date: 4/16/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TTN-D1-830-U-DL
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE
3000K, 80 CRI LEDS AND DRIVE LANE DISTRIBUTION
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2855 lumens
Efficiency: N/A
Efficacy: 108.1 lumens/watt
Luminous Opening: Circular (Dia: 0.71' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

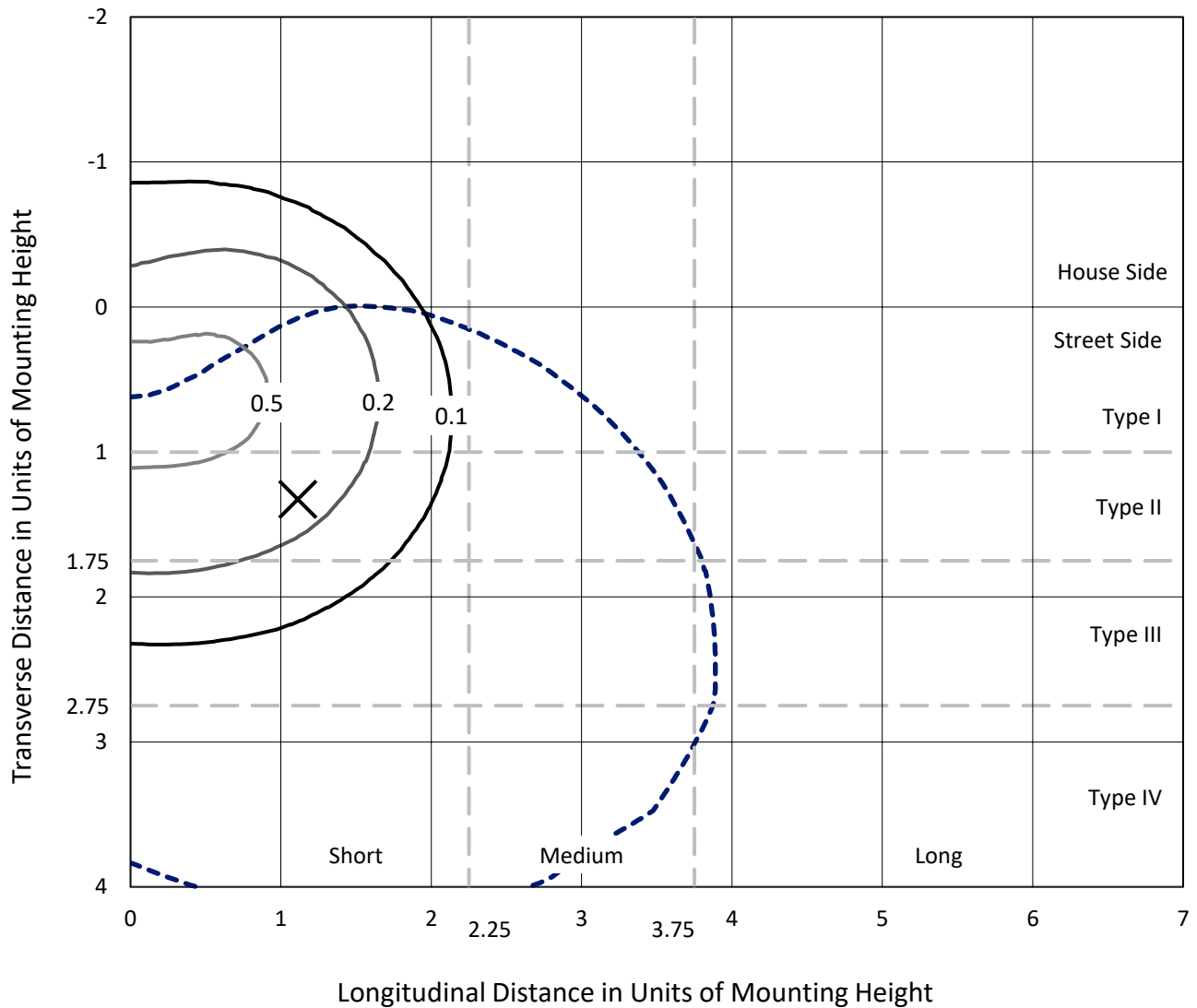
Input Watts (W): 26.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

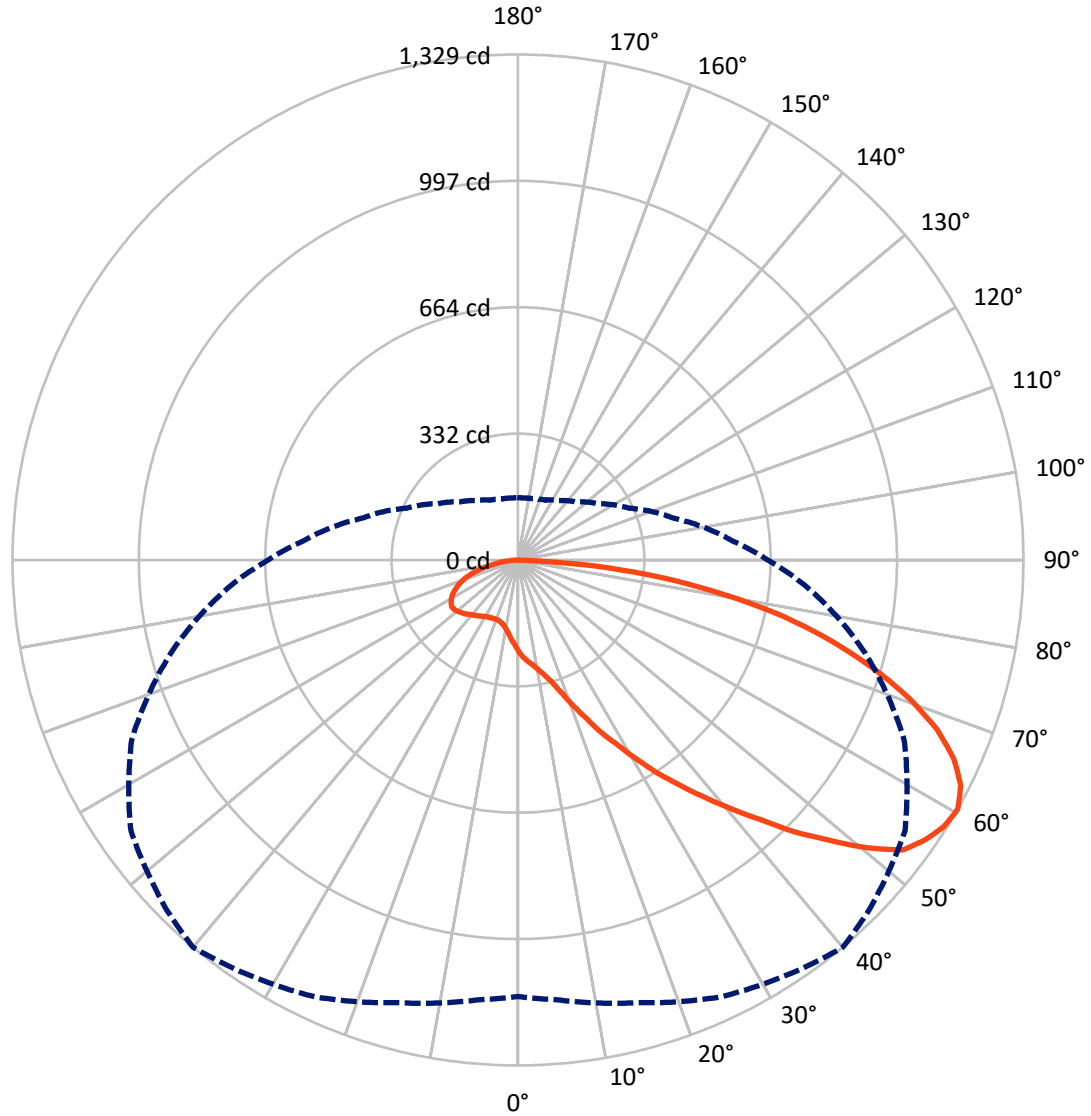
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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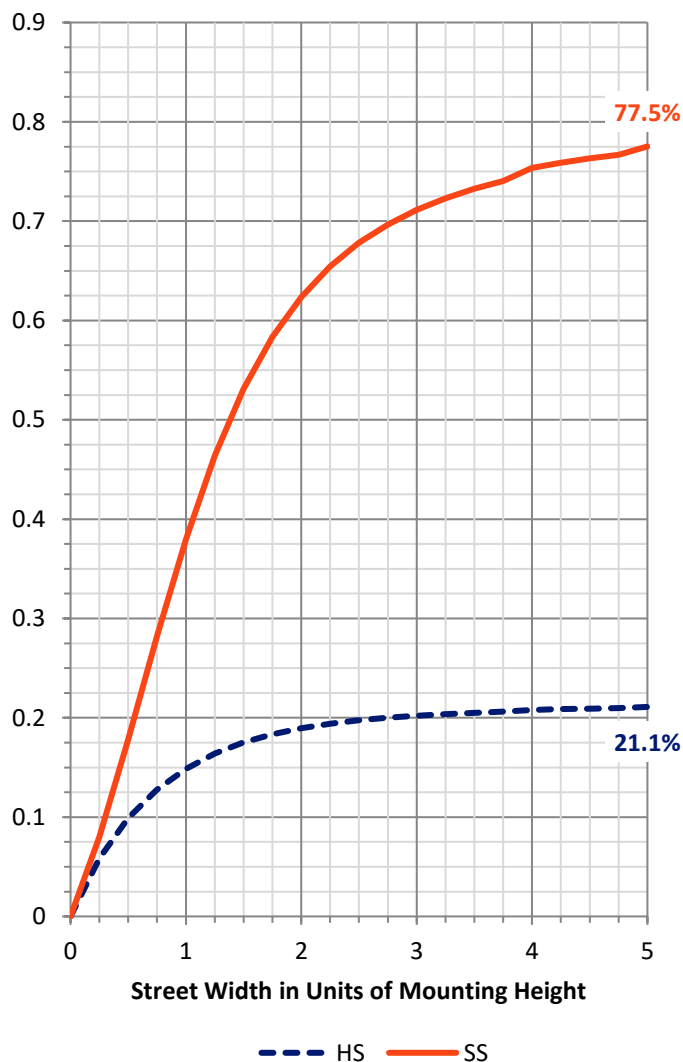
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	608.0	0.0	608.0
	% Fixture	21.3	0.0	21.3
Street Side	Lumens	2247.0	0.0	2247.0
	% Fixture	78.7	0.0	78.7
Total	Lumens	2855.0	0.0	2855.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.7	0.8
10°-20°	72.4	2.5
20°-30°	152.9	5.4
30°-40°	279.4	9.8
40°-50°	454.0	15.9
50°-60°	631.1	22.1
60°-70°	654.2	22.9
70°-80°	468.8	16.4
80°-90°	119.5	4.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	2855.0	100.0
0°-180°	2855.0	100.0

Coefficient of Utilization

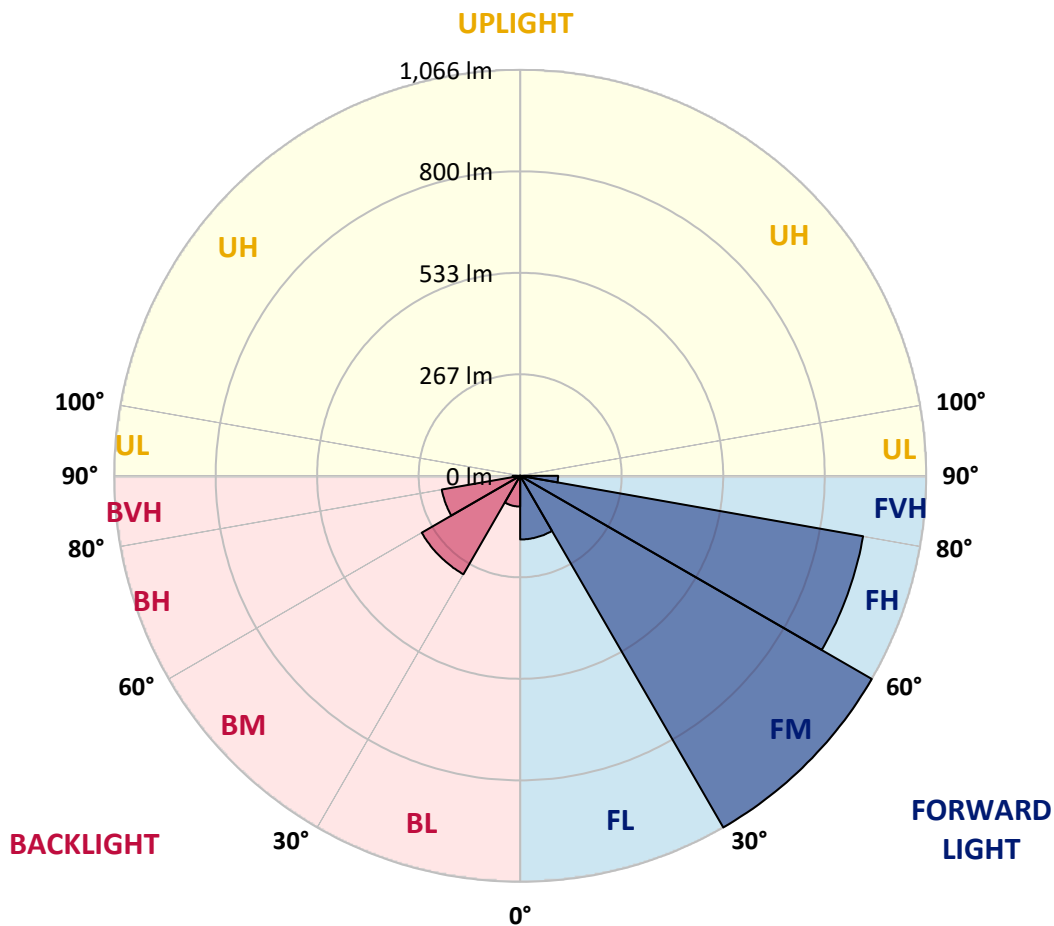


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	167.1	5.9			
FM (30°-60°)	1066.1	37.3			
FH (60°-80°)	914.3	32.0			G1/1800
FVH (80°-90°)	99.6	3.5			G1/100
BL (0°-30°)	80.9	2.8	B0/110		
BM (30°-60°)	298.5	10.5	B1/1000		
BH (60°-80°)	208.7	7.3	B1/500		G1/500
BVH (80°-90°)	20.0	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	240.5	240.5	240.5	240.5	240.5	240.5	240.5	240.5	240.5	240.5	240.5
2.5°	257.8	257.8	257.8	257.8	255.3	255.3	252.8	250.4	247.9	245.4	240.5
5°	280.1	280.1	277.6	275.2	270.2	267.7	265.2	260.3	255.3	250.4	242.9
7.5°	290.0	290.0	290.0	287.6	280.1	277.6	272.7	265.2	257.8	250.4	240.5
10°	307.4	307.4	304.9	302.4	295.0	292.5	287.6	277.6	265.2	252.8	240.5
12.5°	329.7	327.2	324.7	322.3	314.8	309.9	302.4	292.5	277.6	262.8	247.9
15°	357.0	352.0	352.0	347.0	339.6	332.2	327.2	312.3	297.5	277.6	257.8
17.5°	386.7	384.2	381.8	376.8	369.4	364.4	357.0	339.6	319.8	295.0	272.7
20°	423.9	418.9	421.4	414.0	406.5	404.1	391.7	371.8	347.0	319.8	292.5
22.5°	468.5	463.6	463.6	456.1	451.2	446.2	433.8	411.5	379.3	349.5	314.8
25°	518.1	513.1	513.1	508.2	503.2	498.3	483.4	458.6	421.4	384.2	344.6
27.5°	572.6	567.7	567.7	565.2	552.8	545.4	533.0	505.7	468.5	421.4	374.3
30°	629.6	624.7	629.6	624.7	617.2	602.4	587.5	557.8	515.6	463.6	406.5
32.5°	674.3	674.3	676.7	681.7	676.7	664.3	647.0	622.2	565.2	500.7	436.3
35°	726.3	726.3	731.3	738.7	736.2	723.8	706.5	679.2	619.7	542.9	468.5
37.5°	783.3	783.3	788.3	800.7	795.7	788.3	775.9	741.2	674.3	585.0	503.2
40°	845.3	842.8	847.8	865.1	867.6	857.7	842.8	808.1	731.3	639.6	540.4
42.5°	907.3	904.8	914.7	932.1	934.5	932.1	917.2	877.5	790.8	694.1	577.6
45°	969.3	969.3	984.1	1011.4	1023.8	1018.8	1006.4	956.9	865.1	751.1	627.2
47.5°	1033.7	1033.7	1053.5	1088.2	1103.1	1100.6	1095.7	1036.2	937.0	810.6	669.3
50°	1083.3	1083.3	1115.5	1155.2	1180.0	1189.9	1165.1	1110.6	999.0	862.7	704.0
52.5°	1132.9	1132.9	1165.1	1227.1	1251.8	1266.7	1234.5	1177.5	1068.4	909.8	736.2
55°	1157.6	1162.6	1207.2	1266.7	1306.4	1298.9	1311.3	1234.5	1113.0	944.5	756.1
57.5°	1160.1	1167.6	1217.1	1279.1	1323.7	1321.3	1323.7	1254.3	1130.4	951.9	758.5
60°	1147.7	1160.1	1204.7	1266.7	1308.9	1328.7	1303.9	1241.9	1120.5	944.5	756.1
62.5°	1118.0	1142.8	1189.9	1237.0	1298.9	1306.4	1286.6	1234.5	1093.2	937.0	743.7
65°	1051.1	1078.3	1145.3	1199.8	1249.4	1259.3	1237.0	1192.4	1065.9	902.3	704.0
67.5°	984.1	1001.5	1058.5	1142.8	1177.5	1187.4	1180.0	1127.9	1018.8	832.9	656.9
70°	907.3	929.6	974.2	1061.0	1095.7	1093.2	1115.5	1056.0	946.9	773.4	607.3
72.5°	803.2	835.4	880.0	951.9	994.0	979.2	1013.9	964.3	852.7	699.1	540.4
75°	681.7	709.0	766.0	823.0	870.1	852.7	880.0	845.3	743.7	609.8	463.6
77.5°	545.4	577.6	629.6	681.7	713.9	713.9	726.3	696.6	617.2	500.7	379.3
80°	404.1	433.8	480.9	518.1	547.8	550.3	562.7	547.8	476.0	389.2	290.0
82.5°	267.7	282.6	324.7	354.5	384.2	381.8	401.6	391.7	332.2	267.7	193.4
85°	114.0	123.9	158.7	183.4	210.7	200.8	228.1	225.6	178.5	128.9	86.8
87.5°	5.0	7.4	7.4	5.0	7.4	2.5	7.4	9.9	7.4	5.0	5.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	240.5	240.5	240.5	240.5	240.5	240.5	240.5	240.5	240.5	240.5	240.5
2.5°	240.5	238.0	233.0	230.5	228.1	223.1	223.1	220.6	220.6	220.6	218.1
5°	240.5	235.5	230.5	223.1	218.1	213.2	208.2	203.3	200.8	200.8	198.3
7.5°	235.5	230.5	223.1	215.7	208.2	198.3	193.4	183.4	181.0	178.5	178.5
10°	235.5	230.5	218.1	208.2	198.3	188.4	181.0	171.0	163.6	161.1	161.1
12.5°	238.0	230.5	218.1	205.7	193.4	181.0	171.0	161.1	153.7	148.7	148.7
15°	247.9	238.0	223.1	205.7	190.9	176.0	166.1	153.7	146.3	141.3	141.3
17.5°	260.3	250.4	228.1	208.2	190.9	173.5	161.1	148.7	141.3	136.3	133.9
20°	277.6	262.8	238.0	210.7	190.9	173.5	158.7	146.3	136.3	131.4	131.4
22.5°	297.5	280.1	247.9	215.7	193.4	173.5	158.7	143.8	133.9	128.9	128.9
25°	322.3	299.9	262.8	225.6	198.3	176.0	158.7	143.8	133.9	128.9	128.9
27.5°	349.5	324.7	277.6	235.5	203.3	178.5	158.7	143.8	133.9	128.9	128.9
30°	374.3	347.0	292.5	245.4	210.7	181.0	161.1	146.3	136.3	131.4	128.9
32.5°	401.6	366.9	307.4	255.3	215.7	185.9	163.6	148.7	136.3	131.4	131.4
35°	428.9	391.7	322.3	267.7	223.1	190.9	166.1	151.2	138.8	133.9	133.9
37.5°	458.6	418.9	339.6	277.6	230.5	195.8	171.0	153.7	141.3	136.3	136.3
40°	493.3	446.2	357.0	290.0	238.0	200.8	173.5	158.7	146.3	141.3	141.3
42.5°	525.5	471.0	374.3	299.9	245.4	205.7	178.5	161.1	151.2	146.3	146.3
45°	557.8	500.7	391.7	312.3	252.8	213.2	183.4	168.6	156.2	151.2	151.2
47.5°	594.9	528.0	411.5	322.3	260.3	218.1	188.4	173.5	161.1	158.7	156.2
50°	624.7	547.8	423.9	332.2	265.2	223.1	193.4	176.0	166.1	161.1	161.1
52.5°	652.0	567.7	433.8	337.1	267.7	225.6	198.3	181.0	171.0	166.1	166.1
55°	666.8	575.1	441.2	337.1	270.2	228.1	198.3	181.0	171.0	168.6	166.1
57.5°	666.8	575.1	436.3	332.2	265.2	223.1	195.8	178.5	171.0	166.1	166.1
60°	656.9	567.7	423.9	322.3	257.8	215.7	190.9	173.5	166.1	163.6	163.6
62.5°	642.0	555.3	414.0	309.9	247.9	205.7	183.4	166.1	161.1	161.1	158.7
65°	602.4	518.1	391.7	292.5	233.0	193.4	173.5	158.7	153.7	151.2	148.7
67.5°	560.2	483.4	357.0	272.7	213.2	181.0	161.1	148.7	141.3	141.3	138.8
70°	518.1	446.2	324.7	245.4	190.9	166.1	146.3	133.9	128.9	128.9	128.9
72.5°	461.1	399.1	287.6	215.7	168.6	146.3	131.4	119.0	116.5	116.5	114.0
75°	394.1	339.6	242.9	183.4	141.3	123.9	111.6	99.2	99.2	99.2	99.2
77.5°	322.3	275.2	193.4	146.3	111.6	99.2	91.7	81.8	81.8	81.8	81.8
80°	242.9	203.3	141.3	106.6	81.8	71.9	66.9	62.0	64.5	64.5	62.0
82.5°	158.7	133.9	89.2	66.9	52.1	47.1	47.1	42.1	44.6	44.6	44.6
85°	69.4	59.5	37.2	29.7	24.8	24.8	24.8	22.3	24.8	24.8	24.8
87.5°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.0	2.5	5.0	2.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)