

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: P271509

Luminaire Tested: **ISS-AF-450-LED-E1-T4FT-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P271509
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29760)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISS-AF-450-LED-E1-T4FT-7027
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV FORWARD THROW
Light Source: (16) 2700K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2574.4 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

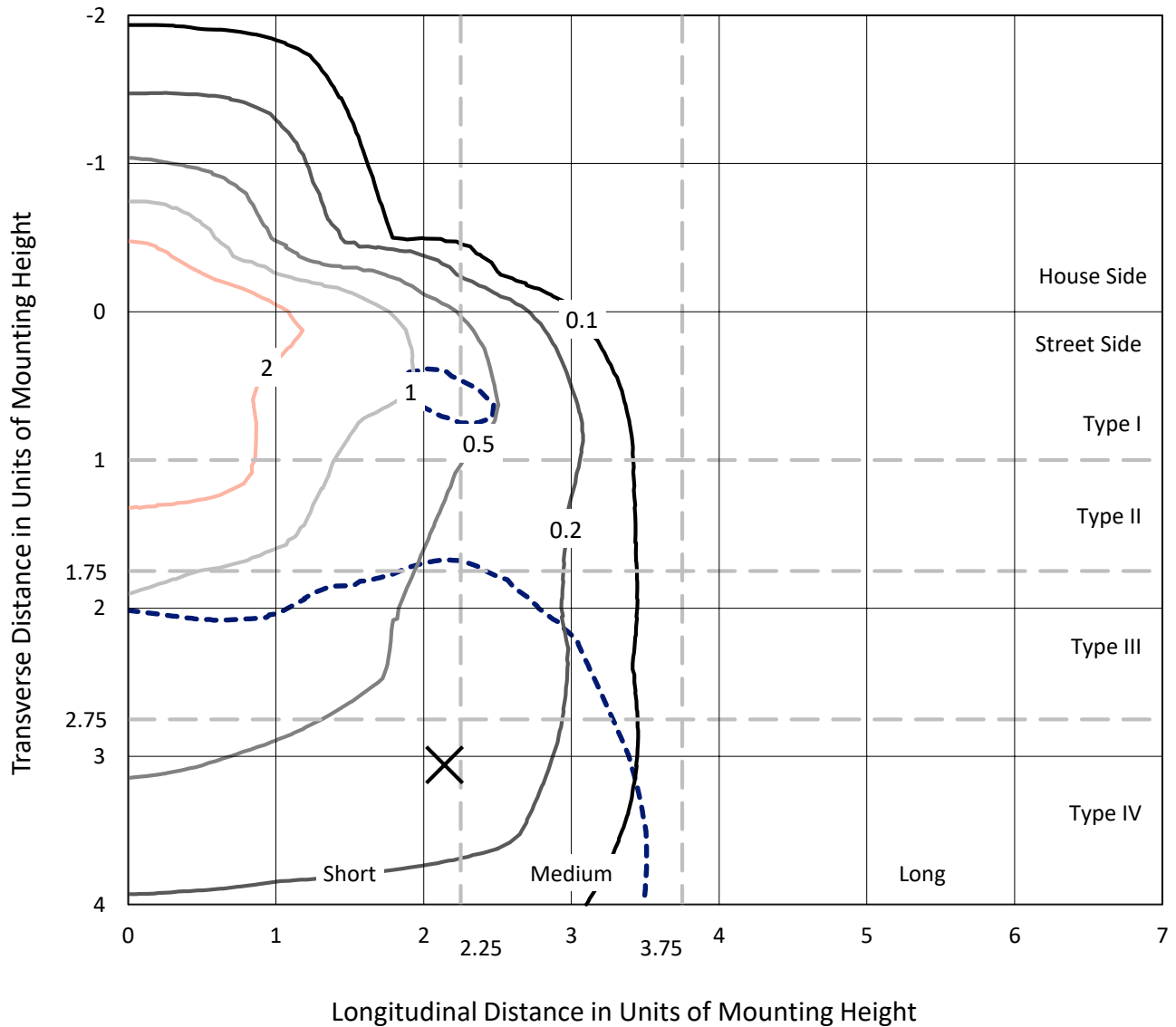
Input Watts (W): 25.31
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

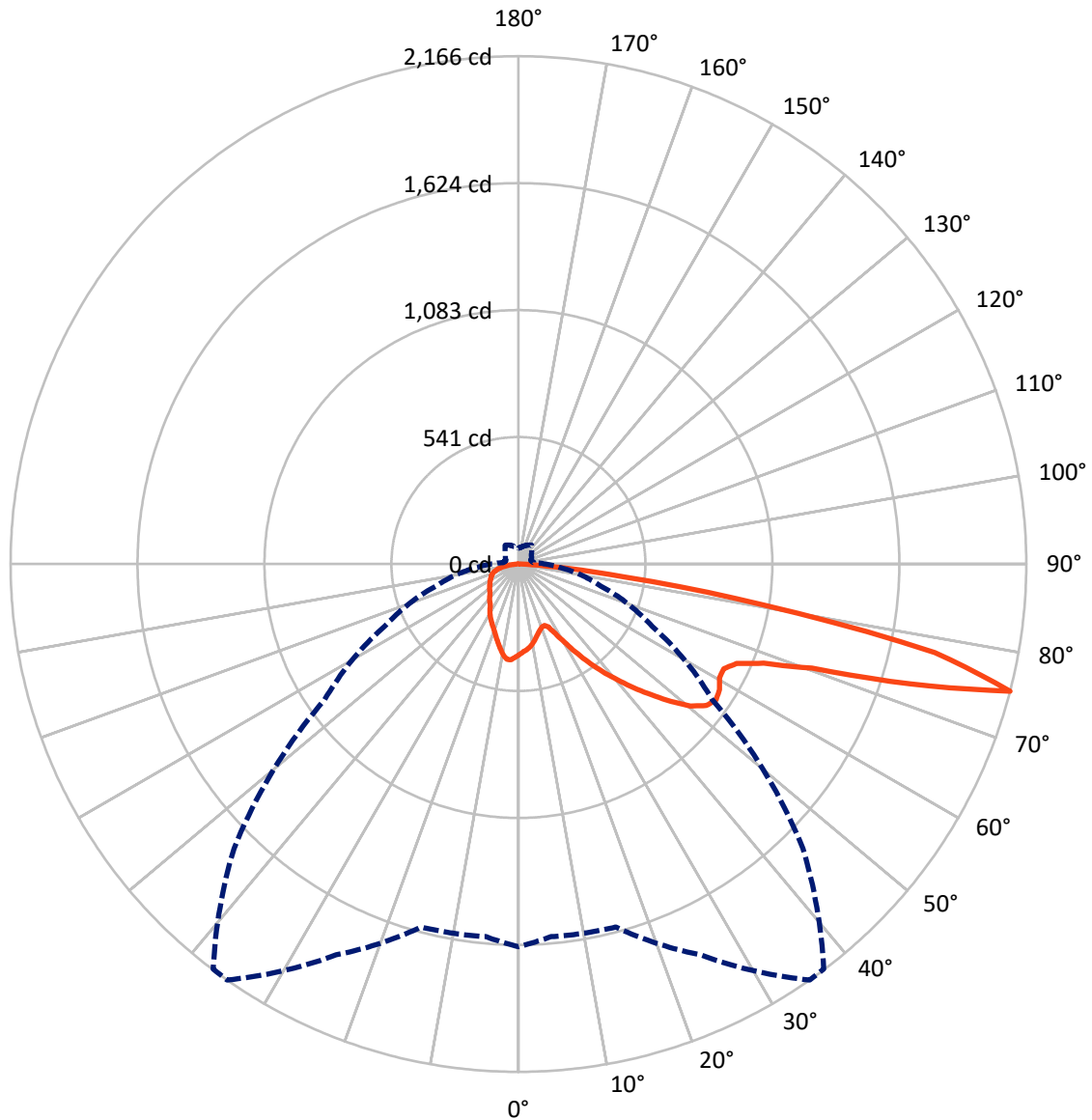
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.9 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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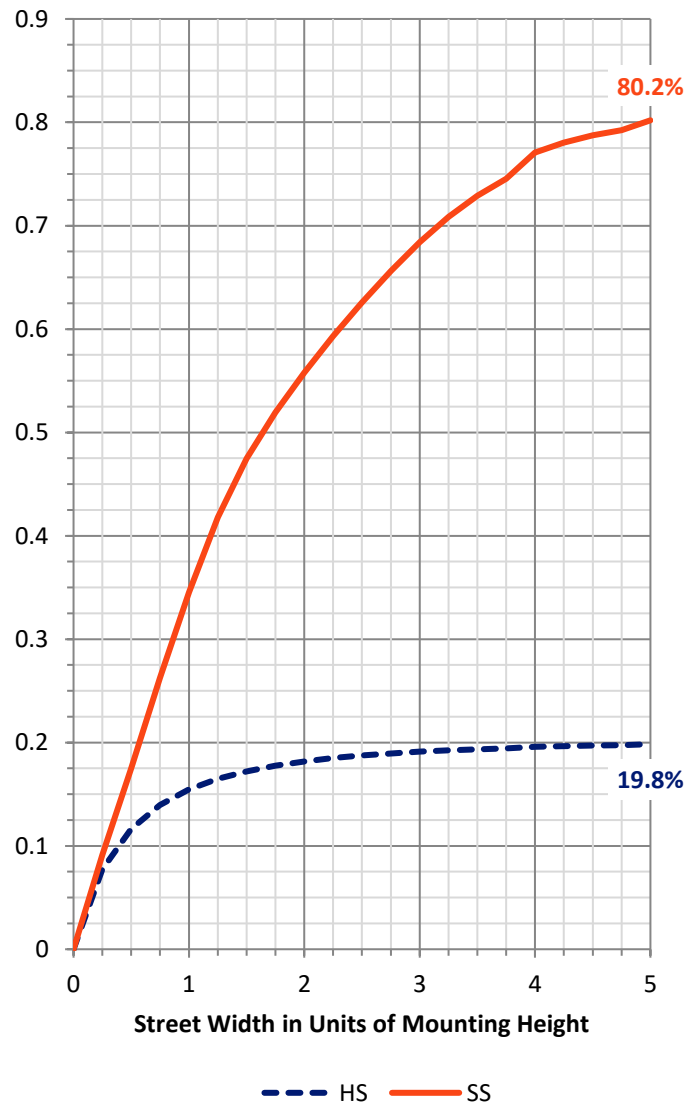
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	516.7	0.0	516.7
	% Fixture	20.1	0.0	20.1
Street Side	Lumens	2057.7	0.0	2057.7
	% Fixture	79.9	0.0	79.9
Total	Lumens	2574.4	0.0	2574.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.3	1.4
10°-20°	95.8	3.7
20°-30°	151.6	5.9
30°-40°	244.6	9.5
40°-50°	361.9	14.1
50°-60°	465.4	18.1
60°-70°	576.2	22.4
70°-80°	580.6	22.6
80°-90°	62.0	2.4
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°	2574.4	100.0
0°-180°	2574.4	100.0



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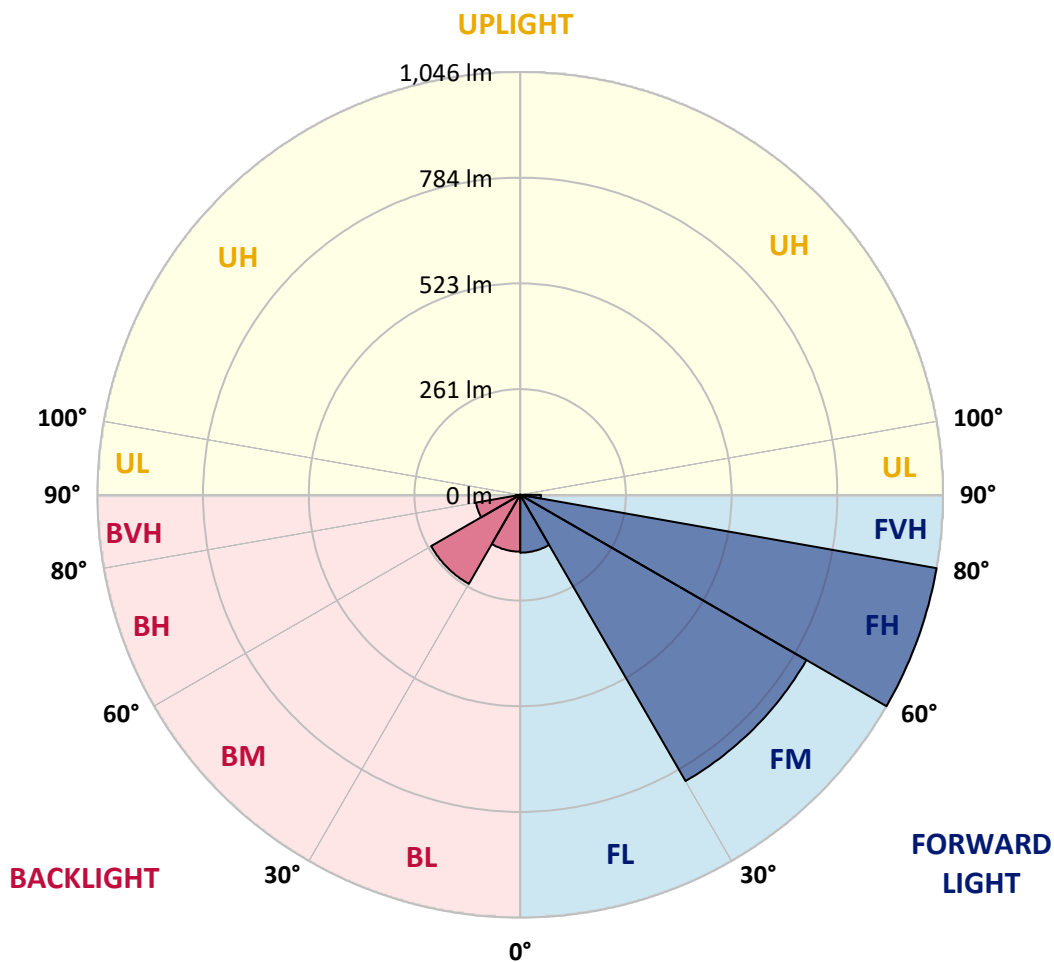
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	143.1	5.6			
FM	(30°-60°)	817.5	31.8			
FH	(60°-80°)	1045.8	40.6			G1/1800
FVH	(80°-90°)	51.3	2.0			G1/100
BL	(0°-30°)	140.5	5.5	B1/500		
BM	(30°-60°)	254.4	9.9	B1/1000		
BH	(60°-80°)	111.0	4.3	B1/500		G1/500
BVH	(80°-90°)	10.7	0.4			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°	37°	45°	55°	65°	75°	85°
0°	386.7	386.7	386.7	386.7	386.7	386.7	386.7	386.7	386.7	386.7	386.7
2.5°	375.6	374.8	373.9	373.9	375.6	375.6	376.4	377.3	378.2	380.7	384.1
5°	365.3	364.4	363.5	364.4	367.0	367.0	369.6	371.3	373.0	377.3	381.6
7.5°	351.5	351.5	350.7	354.1	356.6	355.8	359.2	361.0	365.3	369.6	376.4
10°	333.5	333.5	333.5	337.8	342.1	342.1	344.6	348.9	352.3	358.3	367.0
12.5°	318.0	317.1	317.1	320.5	325.7	326.5	330.8	337.0	341.2	348.9	358.3
15°	312.8	311.2	306.8	306.8	309.4	309.4	316.2	324.8	331.7	339.5	350.7
17.5°	313.7	311.2	299.9	296.5	296.5	297.4	304.3	313.7	322.3	331.7	346.4
20°	321.4	317.1	296.5	288.7	287.1	287.9	293.9	303.4	313.7	326.5	343.0
22.5°	354.9	348.0	309.4	292.2	284.4	284.4	287.9	298.1	311.2	328.3	348.9
25°	432.4	421.1	352.3	321.4	298.1	295.6	289.6	299.9	315.5	336.1	366.1
27.5°	511.3	500.2	405.7	372.2	336.1	328.3	306.0	308.6	325.7	353.2	391.9
30°	577.5	568.1	472.7	434.0	385.9	377.3	343.0	326.5	343.8	377.3	430.6
32.5°	582.7	578.4	544.9	505.4	446.9	434.9	389.3	363.5	372.2	410.0	472.7
35°	630.8	627.4	609.3	571.5	513.1	499.4	451.2	411.6	409.1	446.1	520.7
37.5°	678.1	673.8	661.7	636.0	581.8	570.6	532.9	469.3	451.2	488.2	568.1
40°	722.8	716.8	701.3	686.7	647.2	647.2	606.7	524.3	491.6	525.1	607.6
42.5°	805.3	786.4	745.1	733.9	722.8	722.8	663.5	562.1	524.3	565.6	645.4
45°	884.3	866.3	810.5	788.2	794.1	790.7	709.0	583.6	553.4	603.3	681.5
47.5°	947.2	930.7	874.1	858.6	875.8	862.0	746.9	600.8	590.5	643.7	711.5
50°	1003.0	964.3	909.3	929.8	951.3	928.2	780.4	626.5	627.4	686.7	755.5
52.5°	926.4	922.2	934.1	982.4	1003.0	977.2	810.5	659.2	666.9	741.7	805.3
55°	834.5	833.6	904.1	997.7	1022.7	998.6	830.2	698.7	708.1	809.6	868.0
57.5°	816.5	807.8	855.9	965.2	1010.8	993.4	840.5	735.7	747.7	895.5	929.8
60°	874.9	858.6	850.9	929.8	984.9	976.3	853.4	779.5	795.8	993.4	987.5
62.5°	1002.1	979.7	924.7	932.5	982.4	975.5	884.3	831.0	850.0	1091.5	1020.1
65°	1170.5	1154.2	1066.6	1003.9	1022.7	1013.3	940.3	896.4	906.7	1162.0	983.1
67.5°	1355.4	1332.9	1237.5	1151.6	1127.6	1109.6	1028.6	973.8	936.8	1151.6	884.3
70°	1564.2	1540.1	1457.6	1369.1	1327.9	1308.0	1183.4	1040.8	925.6	1038.2	697.8
72.5°	1821.1	1788.4	1742.9	1752.3	1745.5	1690.5	1430.1	1063.1	844.0	772.6	416.8
75°	1632.1	1595.1	1602.8	1839.2	2165.7	2163.2	1715.4	1008.1	629.2	364.4	180.5
77.5°	585.2	647.2	954.8	1377.7	1815.9	1813.4	1327.9	630.8	269.9	155.6	109.1
80°	147.0	149.6	237.2	565.6	1060.4	1051.9	752.9	238.1	112.6	94.5	74.8
82.5°	47.3	50.8	86.8	195.1	453.7	443.4	233.8	78.2	70.4	61.1	45.5
85°	15.5	15.5	30.9	67.0	149.6	143.5	47.3	28.4	38.6	31.8	20.6
87.5°	0.0	0.0	0.9	1.8	3.4	1.8	0.0	1.8	5.2	6.0	4.3
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°	386.7	386.7	386.7	386.7	386.7	386.7	386.7	386.7	386.7	386.7	386.7
2.5°	386.7	385.9	389.3	391.9	392.8	395.3	397.9	399.7	398.8	397.9	397.9
5°	385.9	386.7	392.8	397.9	402.2	406.6	410.0	411.6	410.9	410.9	410.9
7.5°	380.7	384.1	391.0	399.7	405.7	408.2	409.1	406.6	404.8	402.2	402.2
10°	372.2	377.3	388.4	397.9	400.6	397.1	391.9	386.7	379.8	375.6	375.6
12.5°	365.3	371.3	385.0	392.8	389.3	380.7	369.6	361.0	354.1	348.9	348.0
15°	359.2	367.0	381.6	383.3	375.6	361.0	346.4	337.0	329.2	325.7	325.7
17.5°	354.9	365.3	378.2	373.0	357.5	338.6	324.8	317.1	311.2	307.7	306.8
20°	355.8	368.8	374.8	360.1	337.8	318.0	305.2	300.8	296.5	294.7	294.7
22.5°	365.3	377.3	373.9	348.9	319.7	297.4	288.7	287.9	286.2	284.4	283.7
25°	385.9	394.4	376.4	337.8	300.8	278.5	274.2	276.8	275.9	274.2	274.2
27.5°	414.3	415.9	380.7	326.5	280.2	260.4	260.4	264.7	262.9	260.4	262.1
30°	448.6	439.2	382.5	308.6	256.1	243.2	245.8	248.4	246.7	243.2	243.2
32.5°	485.5	463.3	382.5	285.3	232.9	227.7	228.6	229.4	226.0	221.7	221.7
35°	521.6	486.4	378.2	257.8	214.9	212.3	211.4	214.9	212.3	206.3	206.3
37.5°	556.1	504.5	367.0	229.4	201.1	200.2	202.8	201.1	197.6	189.0	187.4
40°	580.1	516.5	344.6	206.3	189.9	195.1	193.3	184.0	178.8	172.7	172.7
42.5°	601.7	522.5	317.1	188.3	182.2	189.0	182.2	170.2	163.3	162.4	163.3
45°	621.4	527.7	290.5	173.6	172.7	182.2	173.6	160.7	153.0	153.0	153.8
47.5°	640.3	532.9	263.8	159.9	161.5	171.8	166.7	153.8	146.2	140.9	140.9
50°	670.3	544.9	225.1	145.3	148.7	163.3	161.5	147.0	138.4	130.6	128.9
52.5°	706.4	565.6	183.1	129.7	139.2	155.6	155.6	140.9	131.5	121.2	119.5
55°	754.6	587.9	147.0	118.6	129.7	147.0	149.6	138.4	124.7	115.2	113.5
57.5°	802.7	595.6	118.6	107.4	117.8	138.4	145.3	133.2	116.9	110.0	109.1
60°	836.2	570.6	99.7	97.9	109.1	128.1	139.2	127.2	111.7	104.8	104.8
62.5°	831.0	495.1	89.4	92.0	102.2	120.4	134.0	122.0	108.2	104.0	103.1
65°	758.0	373.9	80.8	86.8	96.3	112.6	128.9	119.5	106.6	102.2	100.6
67.5°	638.5	248.4	74.8	81.7	90.2	106.6	124.7	116.0	101.4	98.8	97.1
70°	462.4	145.3	68.8	76.4	84.2	99.7	118.6	109.1	95.4	93.6	89.4
72.5°	250.1	91.1	61.8	69.6	76.4	91.1	109.1	100.6	87.7	80.8	78.2
75°	114.4	66.1	55.0	61.8	67.0	79.9	97.9	88.6	78.2	69.6	67.9
77.5°	76.4	49.9	46.4	53.3	55.9	67.0	86.8	70.4	61.1	55.0	53.3
80°	52.4	37.0	37.8	43.8	43.0	53.3	65.3	56.8	48.1	49.9	45.5
82.5°	33.6	25.8	29.3	30.9	30.0	40.4	50.8	43.0	36.1	30.0	25.8
85°	14.6	13.7	17.2	18.1	18.1	22.4	26.6	21.5	16.3	12.0	12.0
87.5°	0.9	1.8	1.8	2.5	1.8	0.9	0.0	0.0	0.0	0.0	0.0
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)