

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: P198163

Luminaire Tested: **TT-C2-LED-E1-DL-LWR-LW-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198163
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P34705)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-C2-LED-E1-DL-LWR-LW-7050
Description: TOPTIER LED PARKING GARAGE LUMINAIRE
DRIVE LANE DISTRIBUTION WITH LumaWatt WIRELESS SENSOR
Light Source: (160) 5000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3464.1 lumens
Efficiency: N/A
Efficacy: 83.7 lumens/watt
Luminous Opening: Circular (Dia: 1.12' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

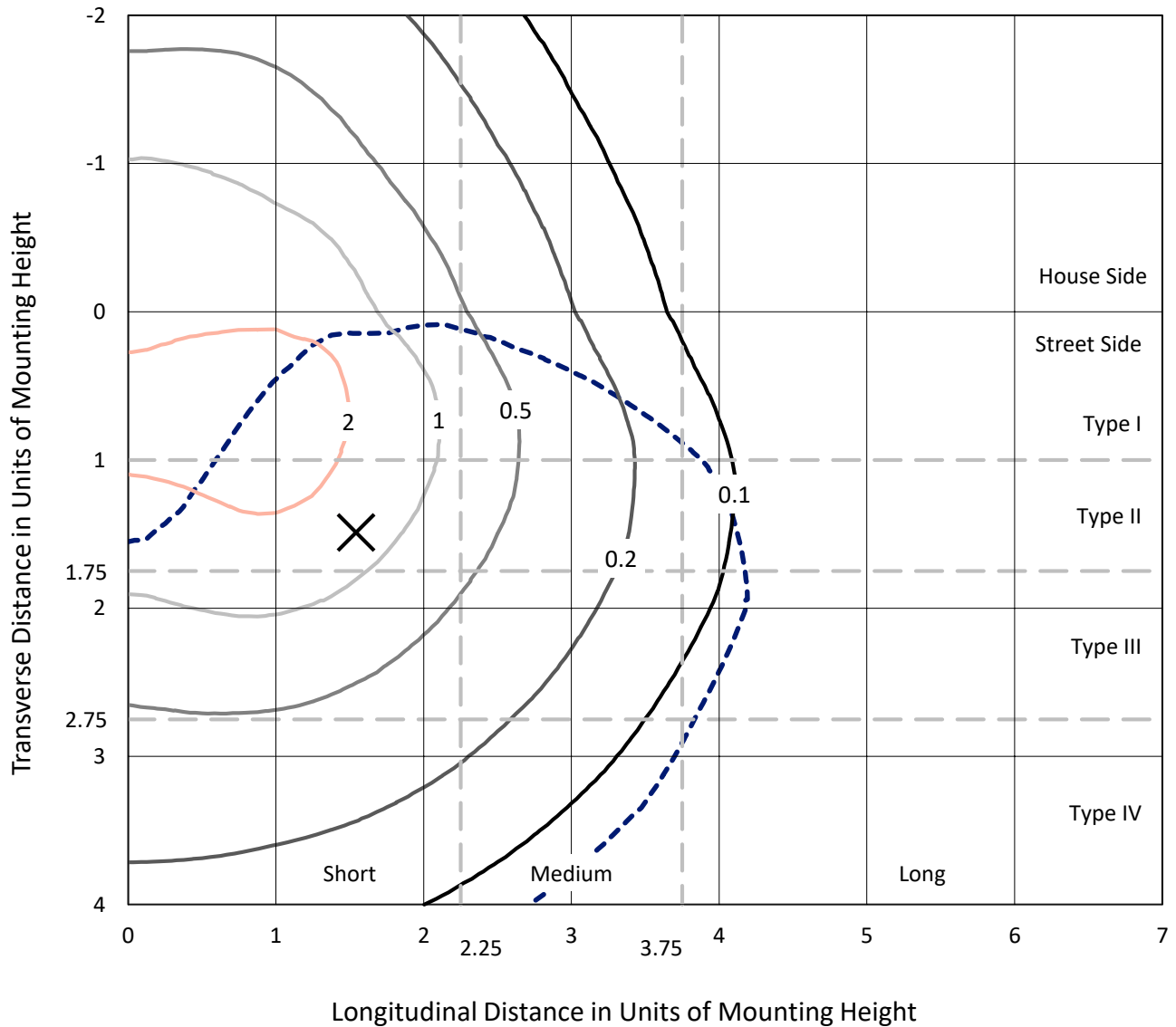
Input Watts (W): 41.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

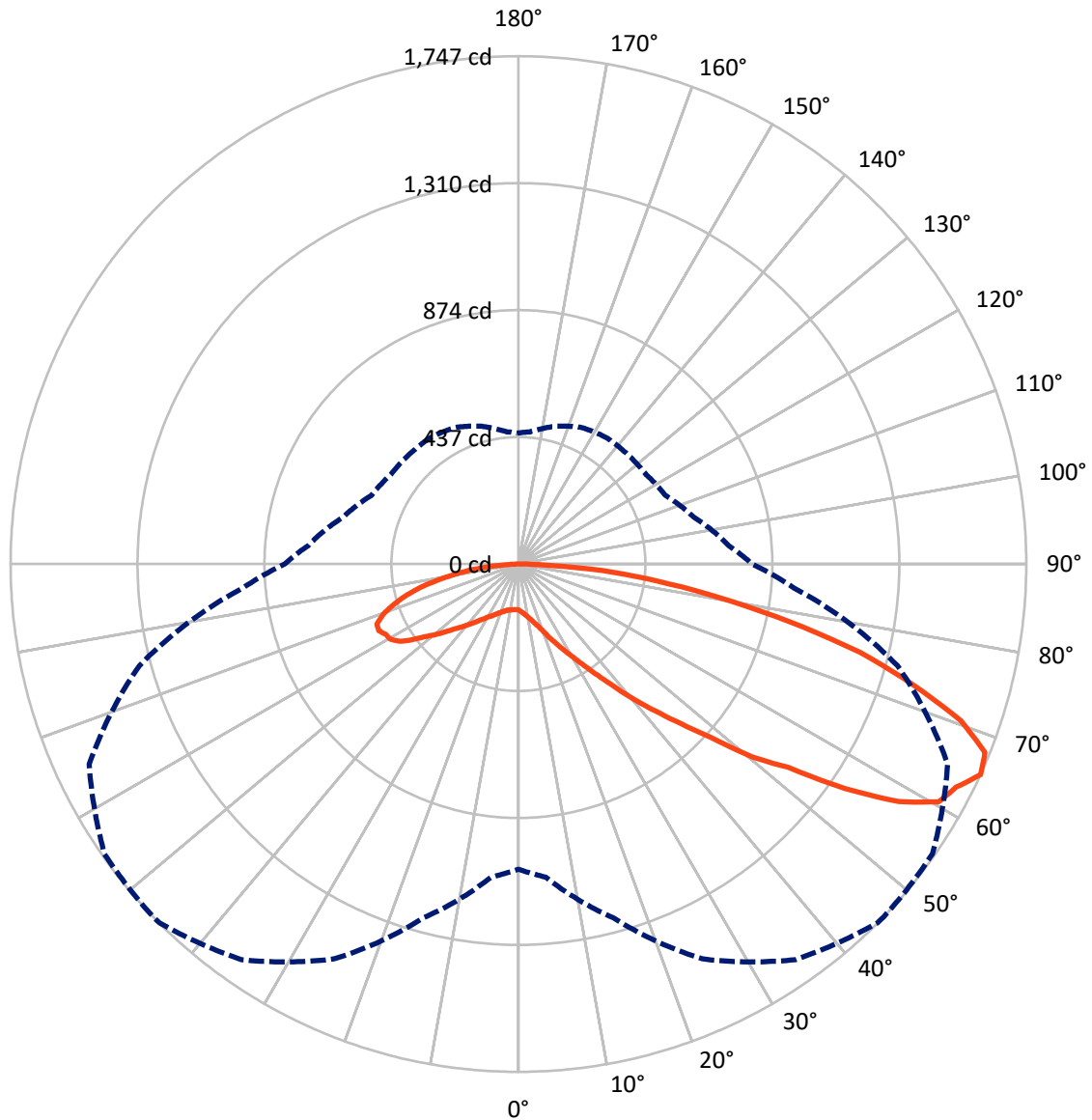
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.8 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 46-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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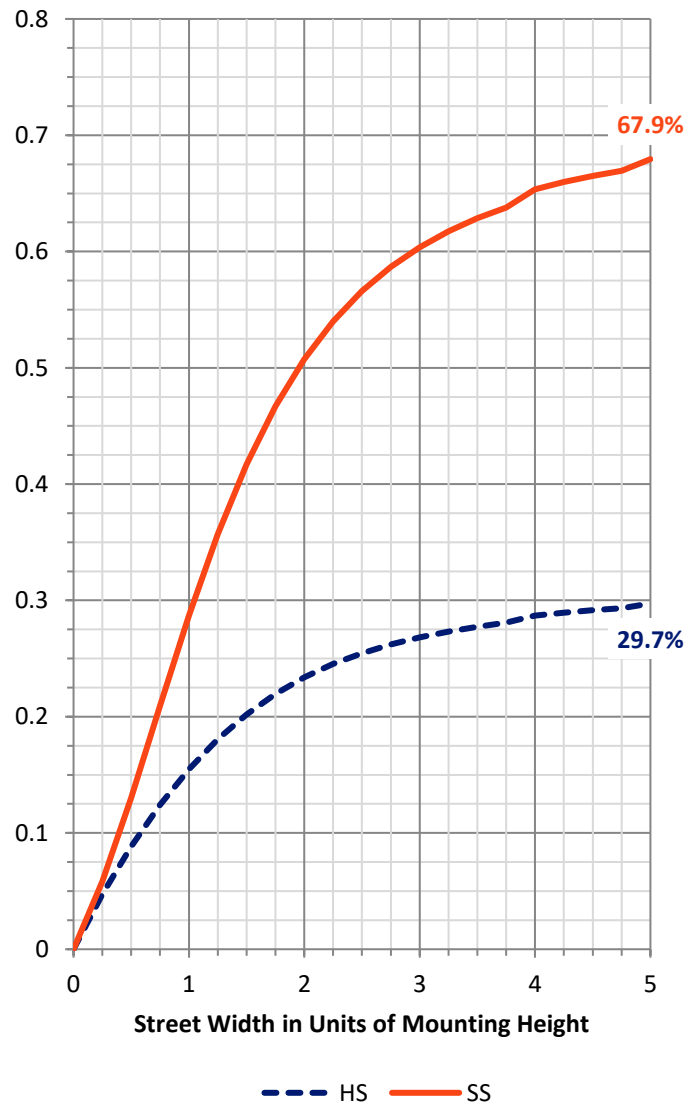
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1051.9	0.0	1051.9
	% Fixture	30.4	0.0	30.4
Street Side	Lumens	2412.1	0.0	2412.1
	% Fixture	69.6	0.0	69.6
Total	Lumens	3464.1	0.0	3464.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	15.9	0.5
10°-20°	54.3	1.6
20°-30°	114.7	3.3
30°-40°	217.9	6.3
40°-50°	402.4	11.6
50°-60°	705.4	20.4
60°-70°	957.2	27.6
70°-80°	778.2	22.5
80°-90°	218.0	6.3
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°	3464.1	100.0
0°-180°	3464.1	100.0



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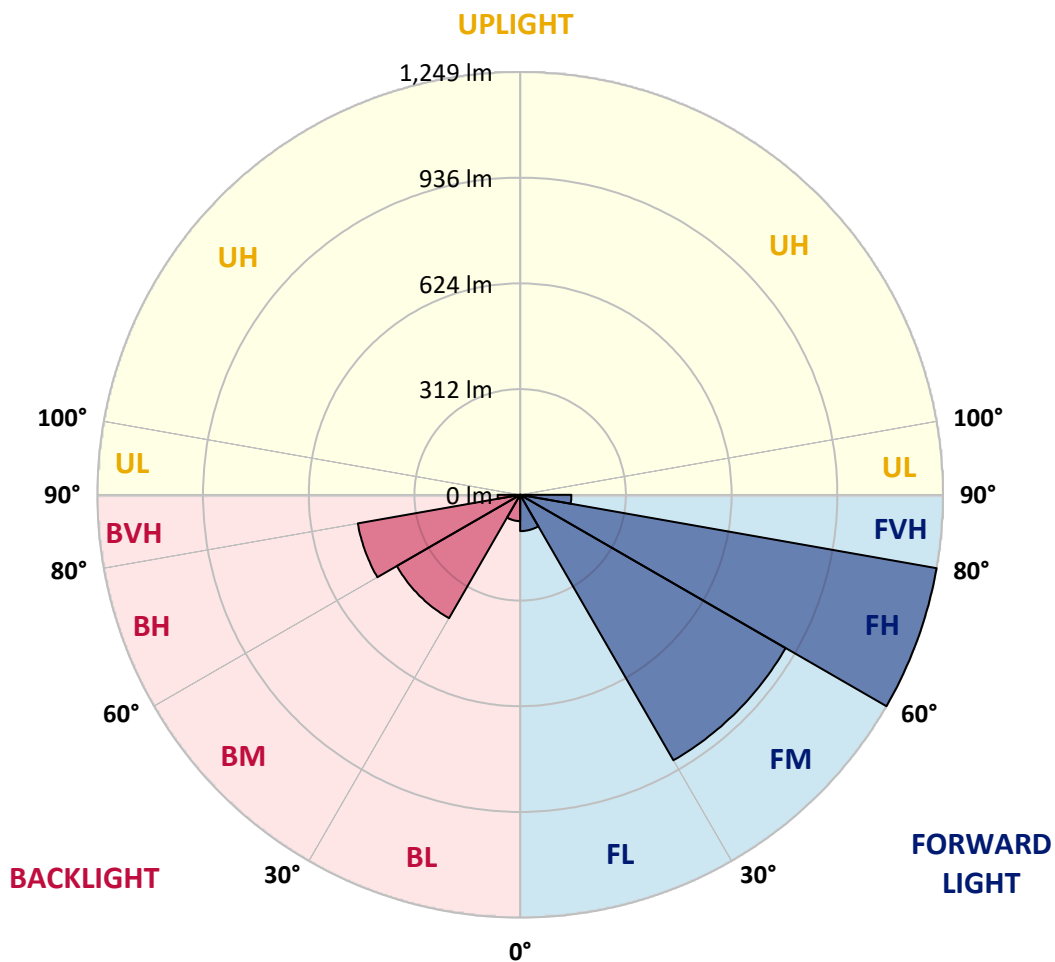
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	107.2	3.1			
FM	(30°-60°)	905.0	26.1			
FH	(60°-80°)	1248.6	36.0			G1/1800
FVH	(80°-90°)	151.3	4.4			G2/225
BL	(0°-30°)	77.7	2.2	B0/110		
BM	(30°-60°)	420.7	12.1	B1/1000		
BH	(60°-80°)	486.8	14.1	B1/500		G1/500
BVH	(80°-90°)	66.7	1.9			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	157.7	157.7	157.7	157.7	157.7	157.7	157.7	157.7	157.7	157.7	157.7
2.5°	164.0	164.7	164.7	164.7	164.0	163.3	163.3	162.6	161.9	161.9	161.2
5°	171.7	171.7	171.7	171.0	170.3	169.6	168.9	168.2	166.1	164.7	164.0
7.5°	180.8	180.8	180.8	180.1	178.7	176.6	177.3	175.2	173.1	170.3	167.5
10°	191.3	192.0	192.7	190.6	189.2	187.1	186.4	183.6	180.8	177.3	173.8
12.5°	203.9	203.2	204.6	202.5	201.1	197.6	196.9	193.4	188.5	184.3	180.1
15°	219.3	220.0	219.3	217.9	215.1	211.6	211.6	206.7	201.1	194.8	187.8
17.5°	241.1	241.1	238.3	237.6	232.7	228.5	227.1	222.8	213.7	206.0	197.6
20°	264.9	263.5	260.0	260.7	256.5	250.2	248.8	241.8	232.0	220.0	208.8
22.5°	292.2	290.8	286.6	285.9	280.3	275.4	275.4	265.6	252.3	236.9	221.4
25°	313.9	314.6	315.3	316.1	311.8	304.1	303.4	292.9	275.4	255.8	235.5
27.5°	340.6	344.1	343.4	346.9	344.8	337.8	336.4	325.2	303.4	280.3	255.1
30°	370.7	375.6	372.8	379.8	379.8	374.9	372.1	360.9	339.2	306.2	276.1
32.5°	404.3	405.0	409.3	418.4	422.6	419.8	417.7	407.2	379.1	342.7	303.4
35°	442.9	439.4	446.4	463.9	470.2	470.9	470.2	457.6	432.4	387.5	337.8
37.5°	481.4	480.0	493.3	510.9	529.8	537.5	534.0	529.8	493.3	437.3	373.5
40°	517.9	524.2	541.7	563.4	593.6	611.8	612.5	604.1	566.2	498.3	416.3
42.5°	553.6	566.2	588.7	626.5	665.0	694.5	691.0	684.0	651.0	569.7	470.9
45°	602.7	615.3	637.7	683.3	744.9	781.4	782.1	794.7	766.6	665.7	545.2
47.5°	647.5	658.7	691.7	752.6	828.3	894.9	892.1	910.3	874.6	754.0	603.4
50°	709.2	705.7	754.0	838.8	941.8	1025.9	1044.2	1053.3	986.0	864.8	665.7
52.5°	763.8	760.3	820.6	934.1	1062.4	1171.0	1161.2	1183.6	1155.6	1014.7	798.9
55°	818.5	818.5	894.2	1043.5	1212.3	1354.6	1363.0	1400.9	1325.2	1126.8	845.8
57.5°	878.8	885.1	992.3	1178.7	1385.4	1541.0	1542.4	1545.9	1424.0	1171.7	858.5
60°	936.9	953.8	1093.2	1311.9	1522.1	1649.6	1660.8	1612.5	1461.8	1200.4	863.4
62.5°	1001.4	1018.2	1189.2	1422.6	1623.0	1693.8	1690.3	1642.6	1524.2	1281.0	925.7
65°	1049.8	1081.3	1260.0	1499.0	1661.5	1745.6	1747.0	1738.6	1629.3	1349.7	951.7
67.5°	1098.8	1146.5	1296.4	1528.4	1688.9	1733.0	1730.9	1698.7	1586.6	1311.2	899.8
70°	1151.4	1186.4	1321.7	1501.8	1606.9	1612.5	1614.6	1568.3	1477.2	1232.0	834.6
72.5°	1169.6	1194.8	1283.1	1391.0	1440.1	1438.7	1419.1	1401.6	1324.5	1110.7	741.4
75°	1137.4	1139.5	1152.8	1199.7	1222.2	1203.2	1213.7	1187.8	1143.7	954.5	632.1
77.5°	1011.2	1007.7	969.9	953.1	953.8	949.6	950.3	918.7	899.8	786.3	513.0
80°	789.1	788.4	758.2	711.3	696.6	692.4	696.6	681.2	663.6	593.6	390.3
82.5°	547.3	538.9	525.6	488.4	486.3	477.9	480.0	477.2	468.8	421.9	276.8
85°	265.6	276.8	288.7	285.9	276.8	278.2	287.3	286.6	276.8	241.8	161.2
87.5°	36.4	52.6	54.7	52.6	66.6	83.4	66.6	68.0	54.7	56.1	35.7
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°	157.7	157.7	157.7	157.7	157.7	157.7	157.7	157.7	157.7	157.7	157.7
2.5°	160.5	159.8	159.1	158.4	157.7	157.0	156.3	156.3	155.6	155.6	155.6
5°	163.3	162.6	161.2	159.8	159.1	157.7	157.0	156.3	154.9	154.9	154.2
7.5°	166.1	165.4	163.3	161.2	159.8	158.4	157.7	157.0	156.3	154.9	154.9
10°	171.7	169.6	166.8	164.0	161.2	159.8	158.4	157.7	157.7	157.0	157.0
12.5°	177.3	175.2	170.3	166.8	163.3	161.2	159.8	159.8	159.1	159.1	158.4
15°	184.3	181.5	175.9	171.0	166.8	164.7	162.6	162.6	162.6	162.6	162.6
17.5°	192.7	188.5	182.2	176.6	172.4	169.6	167.5	167.5	166.8	167.5	168.2
20°	203.9	198.3	189.9	182.9	178.0	175.9	174.5	173.8	173.8	174.5	175.2
22.5°	214.4	208.1	196.9	189.9	185.7	182.2	181.5	181.5	180.8	182.2	182.2
25°	227.1	219.3	207.4	198.3	192.7	189.9	189.9	189.9	190.6	191.3	189.9
27.5°	243.9	234.8	218.6	207.4	202.5	199.7	198.3	199.7	200.4	201.1	199.7
30°	260.7	250.9	230.6	217.9	210.9	208.1	208.1	209.5	210.2	210.9	209.5
32.5°	283.8	269.1	247.4	231.3	223.5	220.7	220.7	221.4	221.4	222.8	222.1
35°	316.1	295.7	268.4	249.5	238.3	234.1	233.4	234.1	235.5	234.8	237.6
37.5°	346.9	323.8	289.4	269.1	257.9	251.6	248.8	248.1	249.5	250.2	250.9
40°	383.3	355.3	315.3	290.1	276.1	269.1	264.9	264.9	264.2	264.9	262.1
42.5°	430.3	398.7	348.3	316.1	296.4	290.1	282.4	280.3	278.2	278.9	274.7
45°	494.0	454.1	393.8	351.1	325.2	311.8	304.1	297.8	295.0	293.6	289.4
47.5°	538.2	495.4	430.3	384.0	356.7	339.2	327.3	318.9	311.8	308.3	309.0
50°	597.1	541.7	474.4	418.4	390.3	370.7	356.7	342.0	331.5	327.3	329.4
52.5°	708.5	641.9	537.5	471.6	424.7	402.9	388.2	370.0	354.6	346.9	349.0
55°	745.6	677.7	581.6	514.4	472.3	445.7	422.6	400.8	380.5	367.9	368.6
57.5°	749.1	681.9	589.4	533.3	504.6	486.3	464.6	435.9	407.9	390.3	388.9
60°	745.6	677.0	588.0	531.2	510.9	510.2	496.9	471.6	438.7	412.8	410.7
62.5°	794.7	721.1	613.2	543.1	514.4	516.5	519.3	501.8	468.1	436.6	429.6
65°	803.8	726.0	623.7	557.8	536.1	531.9	529.8	517.9	490.5	456.2	450.6
67.5°	758.9	685.4	592.2	535.4	520.7	529.8	537.5	527.0	501.1	475.1	467.4
70°	699.4	632.8	545.9	493.3	484.9	499.0	515.8	519.3	504.6	483.5	480.7
72.5°	619.5	563.4	487.0	445.0	441.5	452.0	471.6	487.7	485.6	480.7	479.3
75°	527.7	484.2	417.7	385.4	385.4	398.7	413.5	431.0	444.3	452.7	454.8
77.5°	434.5	391.0	342.0	314.6	318.2	335.7	346.2	363.7	378.4	389.6	390.3
80°	326.6	302.7	260.0	245.3	246.7	258.6	273.3	283.8	295.7	305.5	302.7
82.5°	236.2	214.4	185.0	176.6	182.2	187.8	199.7	208.8	212.3	215.1	220.7
85°	136.0	129.6	113.5	108.6	110.0	115.6	122.6	124.7	128.2	126.8	129.6
87.5°	32.9	35.0	32.9	32.2	32.9	31.5	30.1	36.4	37.1	37.8	36.4
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)