

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: P198162

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198162
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
Description: TOPTIER LED PARKING GARAGE LUMINAIRE
DRIVE LANE DISTRIBUTION WITH LumaWatt WIRELESS SENSOR
Light Source: (160) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3497.1 lumens
Efficiency: N/A
Efficacy: 84.5 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

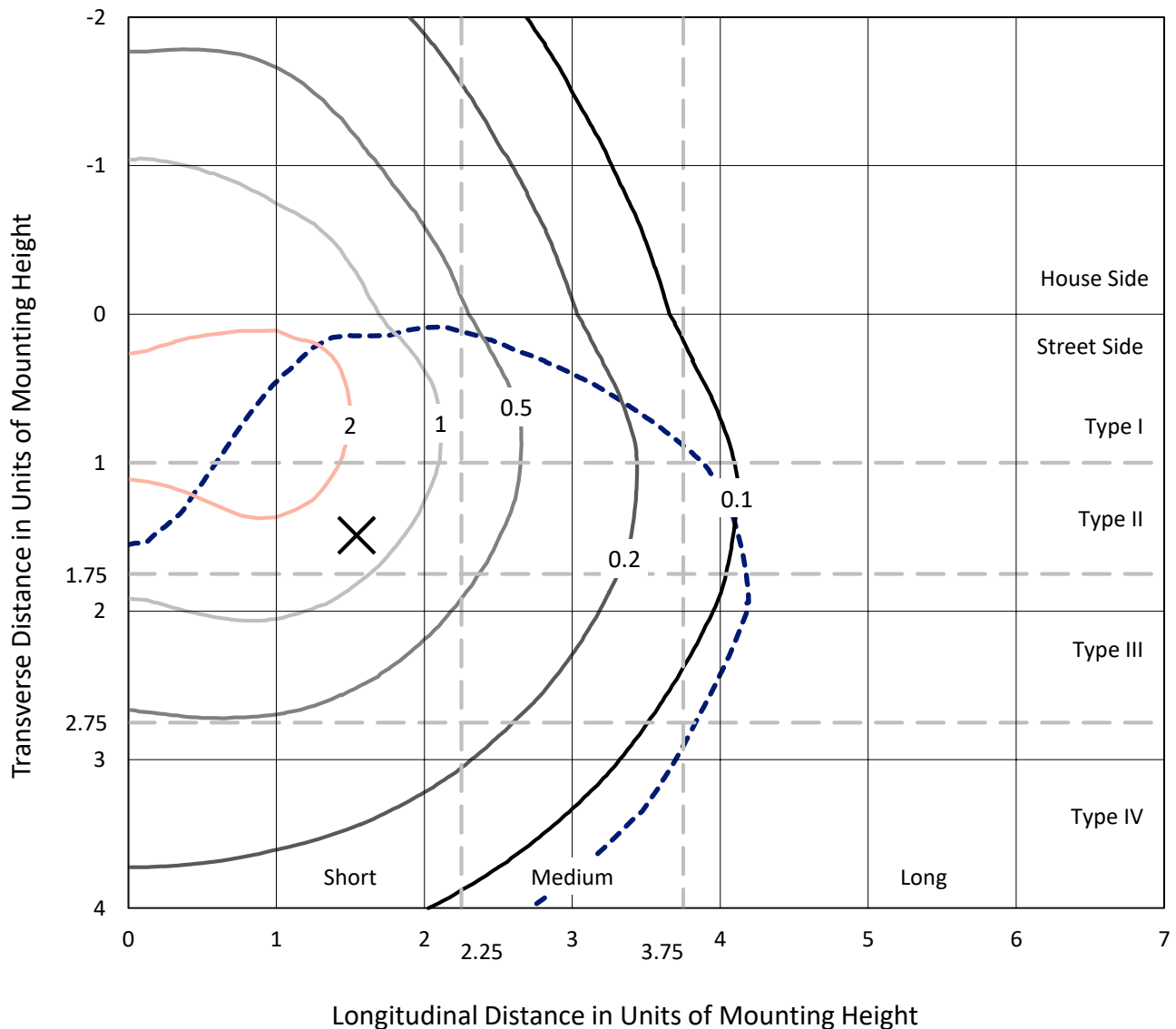


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

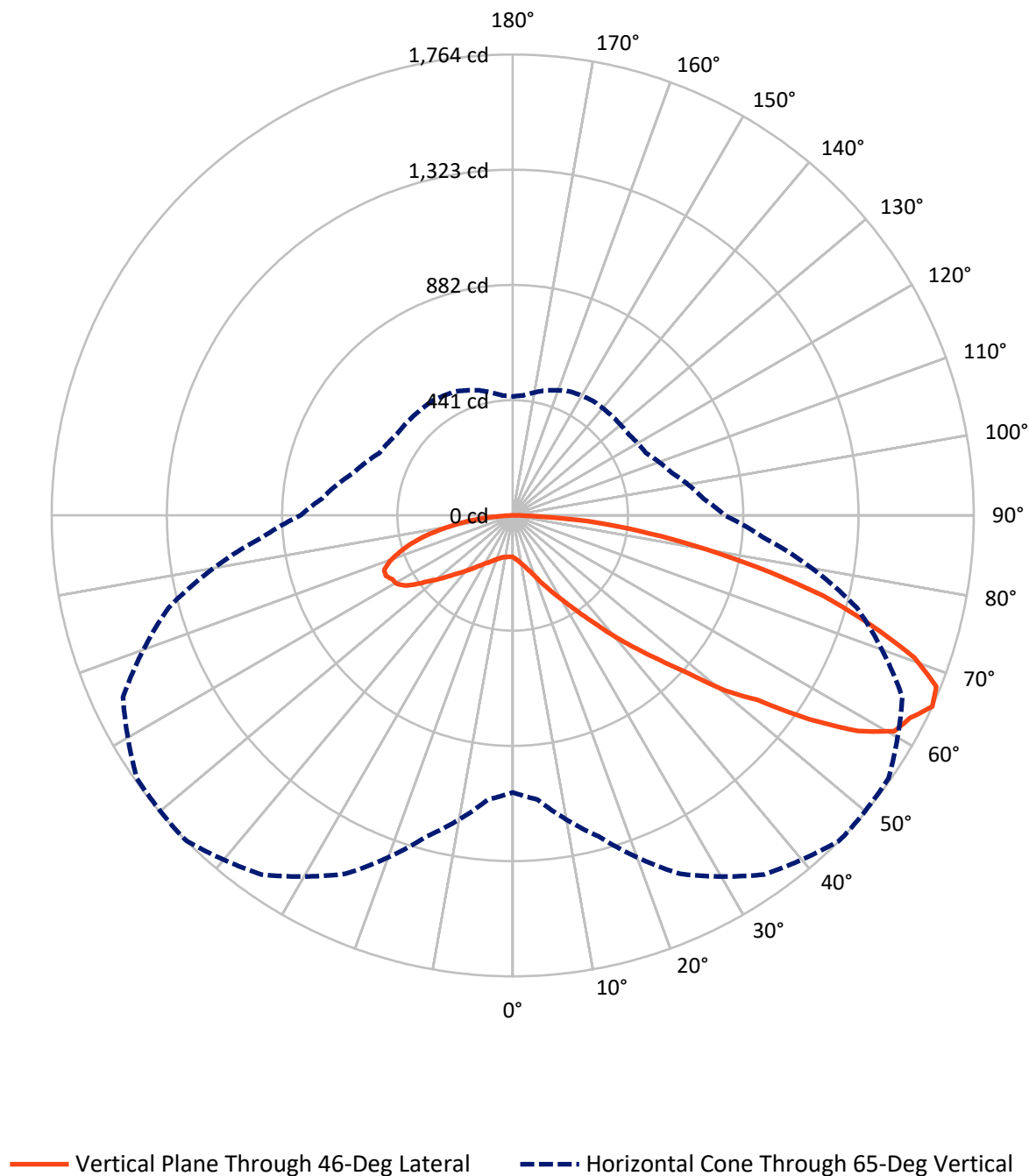


Based on 10 foot mounting height. Maximum calculated value = 2.8 fc
Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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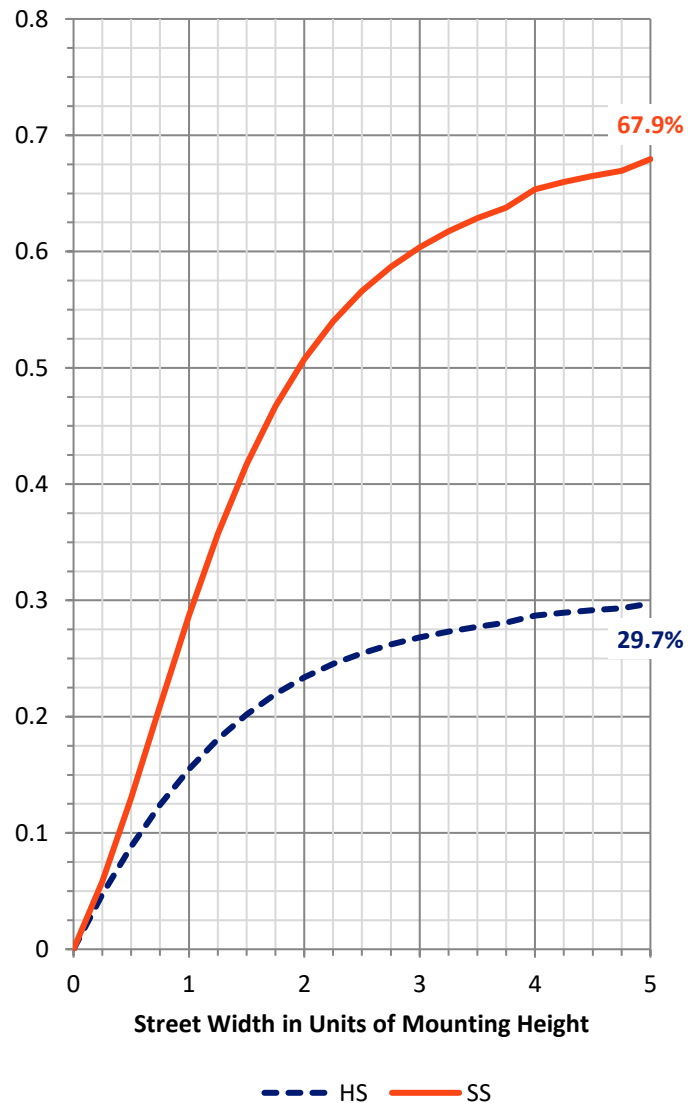
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1062.0	0.0	1062.0
	% Fixture	30.4	0.0	30.4
Street Side	Lumens	2435.2	0.0	2435.2
	% Fixture	69.6	0.0	69.6
Total	Lumens	3497.1	0.0	3497.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.0	0.5
10°-20°	54.8	1.6
20°-30°	115.8	3.3
30°-40°	220.0	6.3
40°-50°	406.3	11.6
50°-60°	712.2	20.4
60°-70°	966.3	27.6
70°-80°	785.7	22.5
80°-90°	220.1	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°	3497.1	100.0
0°-180°	3497.1	100.0

Coefficient of Utilization



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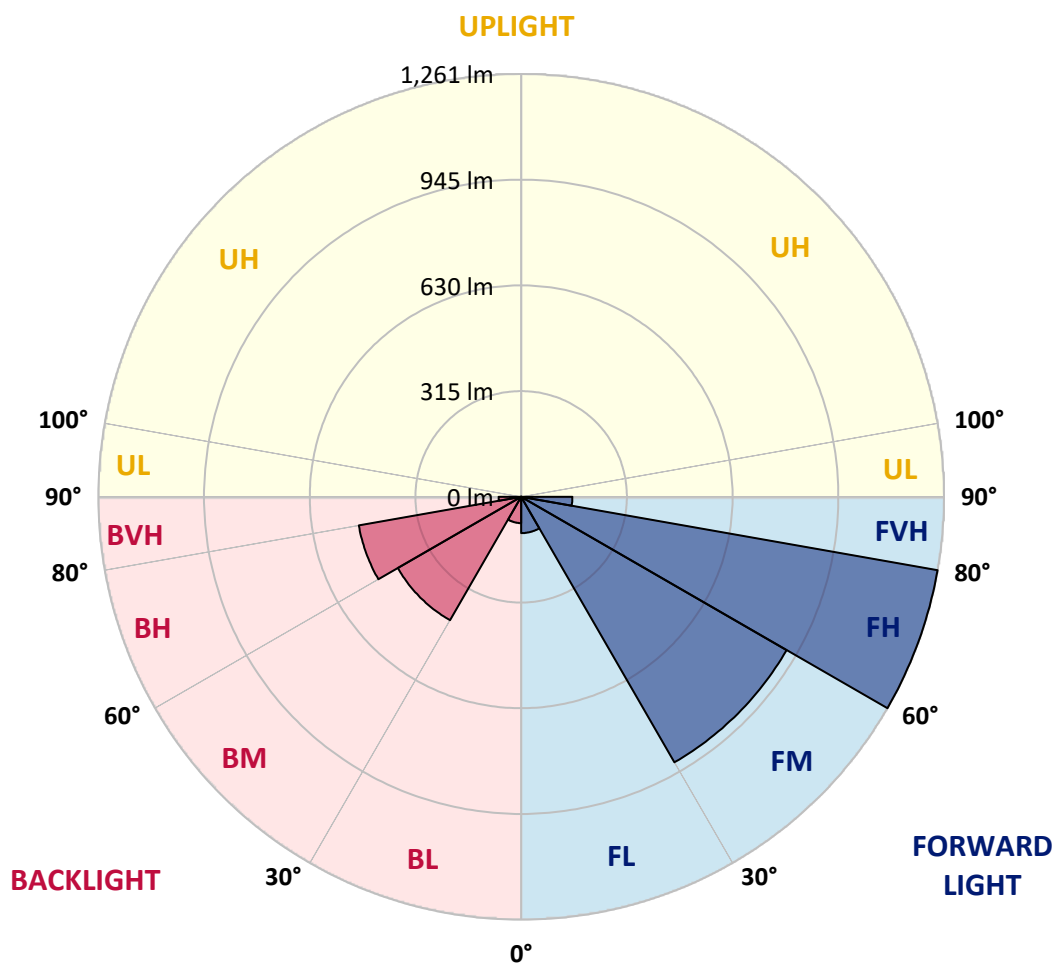
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	108.2	3.1			
FM	(30°-60°)	913.7	26.1			
FH	(60°-80°)	1260.5	36.0			G1/1800
FVH	(80°-90°)	152.7	4.4			G2/225
BL	(0°-30°)	78.4	2.2	B0/110		
BM	(30°-60°)	424.7	12.1	B1/1000		
BH	(60°-80°)	491.5	14.1	B1/500		G1/500
BVH	(80°-90°)	67.3	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°	159.2	159.2	159.2	159.2	159.2	159.2	159.2	159.2	159.2	159.2	159.2
2.5°	165.5	166.3	166.3	166.3	165.5	164.8	164.8	164.1	163.4	163.4	162.7
5°	173.3	173.3	173.3	172.6	171.9	171.2	170.5	169.8	167.7	166.3	165.5
7.5°	182.5	182.5	182.5	181.8	180.4	178.3	179.0	176.9	174.7	171.9	169.1
10°	193.1	193.8	194.6	192.4	191.0	188.9	188.2	185.4	182.5	179.0	175.5
12.5°	205.9	205.2	206.6	204.5	203.0	199.5	198.8	195.3	190.3	186.1	181.8
15°	221.4	222.1	221.4	220.0	217.2	213.7	213.7	208.7	203.0	196.7	189.6
17.5°	243.4	243.4	240.5	239.8	234.9	230.6	229.2	225.0	215.8	208.0	199.5
20°	267.4	266.0	262.5	263.2	258.9	252.6	251.2	244.1	234.2	222.1	210.8
22.5°	295.0	293.6	289.4	288.6	283.0	278.0	278.0	268.1	254.7	239.1	223.6
25°	316.9	317.7	318.4	319.1	314.8	307.0	306.3	295.7	278.0	258.2	237.7
27.5°	343.8	347.4	346.7	350.2	348.1	341.0	339.6	328.3	306.3	283.0	257.5
30°	374.3	379.2	376.4	383.4	383.4	378.5	375.7	364.3	342.4	309.2	278.7
32.5°	408.2	408.9	413.2	422.4	426.6	423.8	421.7	411.0	382.7	346.0	306.3
35°	447.1	443.6	450.7	468.3	474.7	475.4	474.7	462.0	436.5	391.2	341.0
37.5°	486.0	484.6	498.1	515.7	534.8	542.6	539.1	534.8	498.1	441.5	377.1
40°	522.8	529.2	546.9	568.8	599.2	617.6	618.3	609.8	571.6	503.0	420.2
42.5°	558.9	571.6	594.3	632.5	671.4	701.1	697.6	690.5	657.2	575.2	475.4
45°	608.4	621.2	643.8	689.8	752.0	788.8	789.5	802.3	774.0	672.1	550.4
47.5°	653.7	665.0	698.3	759.8	836.2	903.4	900.6	919.0	882.9	761.2	609.1
50°	716.0	712.4	761.2	846.8	950.8	1035.7	1054.1	1063.3	995.4	873.0	672.1
52.5°	771.1	767.6	828.4	943.1	1072.5	1182.2	1172.3	1194.9	1166.6	1024.4	806.5
55°	826.3	826.3	902.7	1053.4	1223.9	1367.5	1376.0	1414.2	1337.8	1137.6	853.9
57.5°	887.2	893.5	1001.8	1190.0	1398.7	1555.7	1557.1	1560.7	1437.6	1182.9	866.7
60°	945.9	962.9	1103.7	1324.4	1536.6	1665.4	1676.7	1627.9	1475.8	1211.9	871.6
62.5°	1011.0	1028.0	1200.6	1436.2	1638.5	1710.0	1706.4	1658.3	1538.7	1293.3	934.6
65°	1059.8	1091.6	1272.0	1513.3	1677.4	1762.3	1763.7	1755.2	1644.9	1362.6	960.7
67.5°	1109.3	1157.4	1308.8	1543.0	1705.0	1749.6	1747.5	1714.9	1601.7	1323.7	908.4
70°	1162.4	1197.7	1334.3	1516.1	1622.2	1627.9	1630.0	1583.3	1491.3	1243.7	842.6
72.5°	1180.8	1206.2	1295.4	1404.3	1453.9	1452.4	1432.6	1414.9	1337.1	1121.3	748.5
75°	1148.2	1150.3	1163.8	1211.2	1233.8	1214.7	1225.3	1199.2	1154.6	963.6	638.1
77.5°	1020.9	1017.3	979.1	962.2	962.9	958.6	959.3	927.5	908.4	793.8	517.9
80°	796.6	795.9	765.5	718.1	703.2	699.0	703.2	687.7	670.0	599.2	394.1
82.5°	552.5	544.0	530.6	493.1	491.0	482.5	484.6	481.8	473.3	425.9	279.5
85°	268.1	279.5	291.5	288.6	279.5	280.9	290.1	289.4	279.5	244.1	162.7
87.5°	36.8	53.1	55.2	53.1	67.2	84.2	67.2	68.6	55.2	56.6	36.1
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°	159.2	159.2	159.2	159.2	159.2	159.2	159.2	159.2	159.2	159.2	159.2
2.5°	162.0	161.3	160.6	159.9	159.2	158.5	157.8	157.8	157.1	157.1	157.1
5°	164.8	164.1	162.7	161.3	160.6	159.2	158.5	157.8	156.4	156.4	155.6
7.5°	167.7	167.0	164.8	162.7	161.3	159.9	159.2	158.5	157.8	156.4	156.4
10°	173.3	171.2	168.4	165.5	162.7	161.3	159.9	159.2	159.2	158.5	158.5
12.5°	179.0	176.9	171.9	168.4	164.8	162.7	161.3	161.3	160.6	160.6	159.9
15°	186.1	183.2	177.6	172.6	168.4	166.3	164.1	164.1	164.1	164.1	164.1
17.5°	194.6	190.3	183.9	178.3	174.0	171.2	169.1	169.1	168.4	169.1	169.8
20°	205.9	200.2	191.7	184.6	179.7	177.6	176.2	175.5	175.5	176.2	176.9
22.5°	216.5	210.1	198.8	191.7	187.5	183.9	183.2	183.2	182.5	183.9	183.9
25°	229.2	221.4	209.4	200.2	194.6	191.7	191.7	191.7	192.4	193.1	191.7
27.5°	246.2	237.0	220.7	209.4	204.5	201.6	200.2	201.6	202.3	203.0	201.6
30°	263.2	253.3	232.8	220.0	212.9	210.1	210.1	211.5	212.2	212.9	211.5
32.5°	286.5	271.7	249.7	233.5	225.7	222.9	222.9	223.6	223.6	225.0	224.3
35°	319.1	298.6	271.0	251.9	240.5	236.3	235.6	236.3	237.7	237.0	239.8
37.5°	350.2	326.9	292.2	271.7	260.3	254.0	251.2	250.4	251.9	252.6	253.3
40°	387.0	358.7	318.4	292.9	278.7	271.7	267.4	267.4	266.7	267.4	264.6
42.5°	434.4	402.6	351.6	319.1	299.3	292.9	285.1	283.0	280.9	281.6	277.3
45°	498.8	458.4	397.6	354.4	328.3	314.8	307.0	300.7	297.8	296.4	292.2
47.5°	543.3	500.2	434.4	387.7	360.1	342.4	330.4	321.9	314.8	311.3	312.0
50°	602.8	546.9	479.0	422.4	394.1	374.3	360.1	345.2	334.6	330.4	332.5
52.5°	715.3	648.0	542.6	476.1	428.7	406.8	391.9	373.5	358.0	350.2	352.3
55°	752.7	684.1	587.2	519.3	476.8	450.0	426.6	404.7	384.2	371.4	372.1
57.5°	756.3	688.4	595.0	538.4	509.4	491.0	469.1	440.0	411.7	394.1	392.6
60°	752.7	683.4	593.6	536.3	515.7	515.0	501.6	476.1	442.9	416.7	414.6
62.5°	802.3	728.0	619.0	548.3	519.3	521.4	524.2	506.5	472.6	440.8	433.7
65°	811.5	732.9	629.6	563.1	541.2	537.0	534.8	522.8	495.2	460.6	454.9
67.5°	766.2	691.9	597.8	540.5	525.7	534.8	542.6	532.0	505.8	479.7	471.9
70°	706.1	638.8	551.1	498.1	489.6	503.7	520.7	524.2	509.4	488.2	485.3
72.5°	625.4	568.8	491.7	449.2	445.7	456.3	476.1	492.4	490.3	485.3	483.9
75°	532.7	488.9	421.7	389.1	389.1	402.6	417.4	435.1	448.5	457.0	459.1
77.5°	438.6	394.8	345.2	317.7	321.2	338.9	349.5	367.2	382.0	393.4	394.1
80°	329.7	305.6	262.5	247.6	249.0	261.1	275.9	286.5	298.6	308.5	305.6
82.5°	238.4	216.5	186.8	178.3	183.9	189.6	201.6	210.8	214.4	217.2	222.9
85°	137.2	130.9	114.6	109.7	111.1	116.7	123.8	125.9	129.5	128.1	130.9
87.5°	33.3	35.4	33.3	32.5	33.3	31.8	30.4	36.8	37.5	38.2	36.8
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)