

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: P198161

Luminaire Tested: **TT-C2-LED-E1-DL-LWR-LW-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P198161  
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-8030  
Description: TOPTIER LED PARKING GARAGE LUMINAIRE  
DRIVE LANE DISTRIBUTION WITH LumaWatt WIRELESS SENSOR  
Light Source: (160) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2637.5 lumens  
Efficiency: N/A  
Efficacy: 63.7 lumens/watt  
Luminous Opening: Circular (Dia: 1.12' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G2

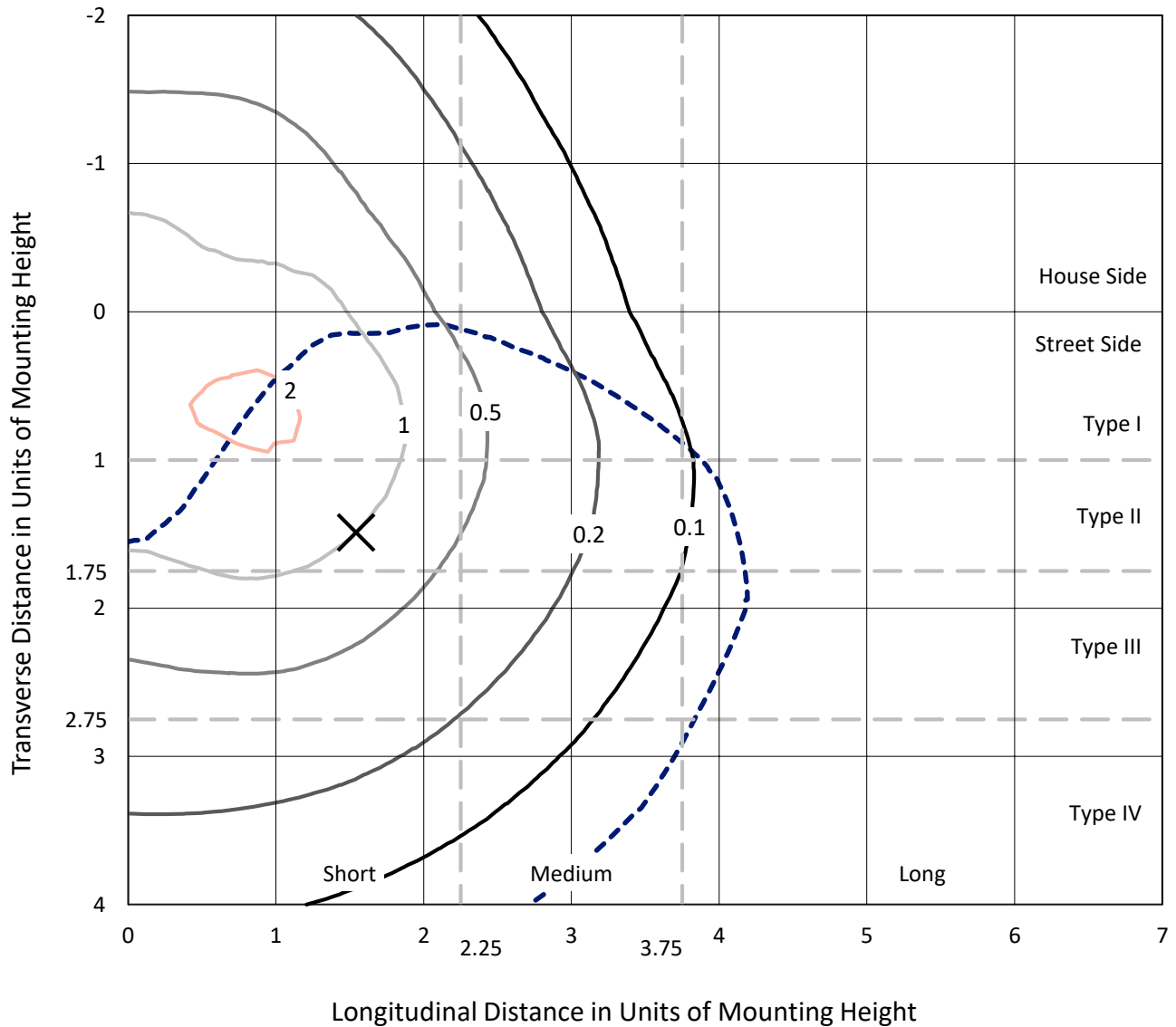
Input Watts (W): 41.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

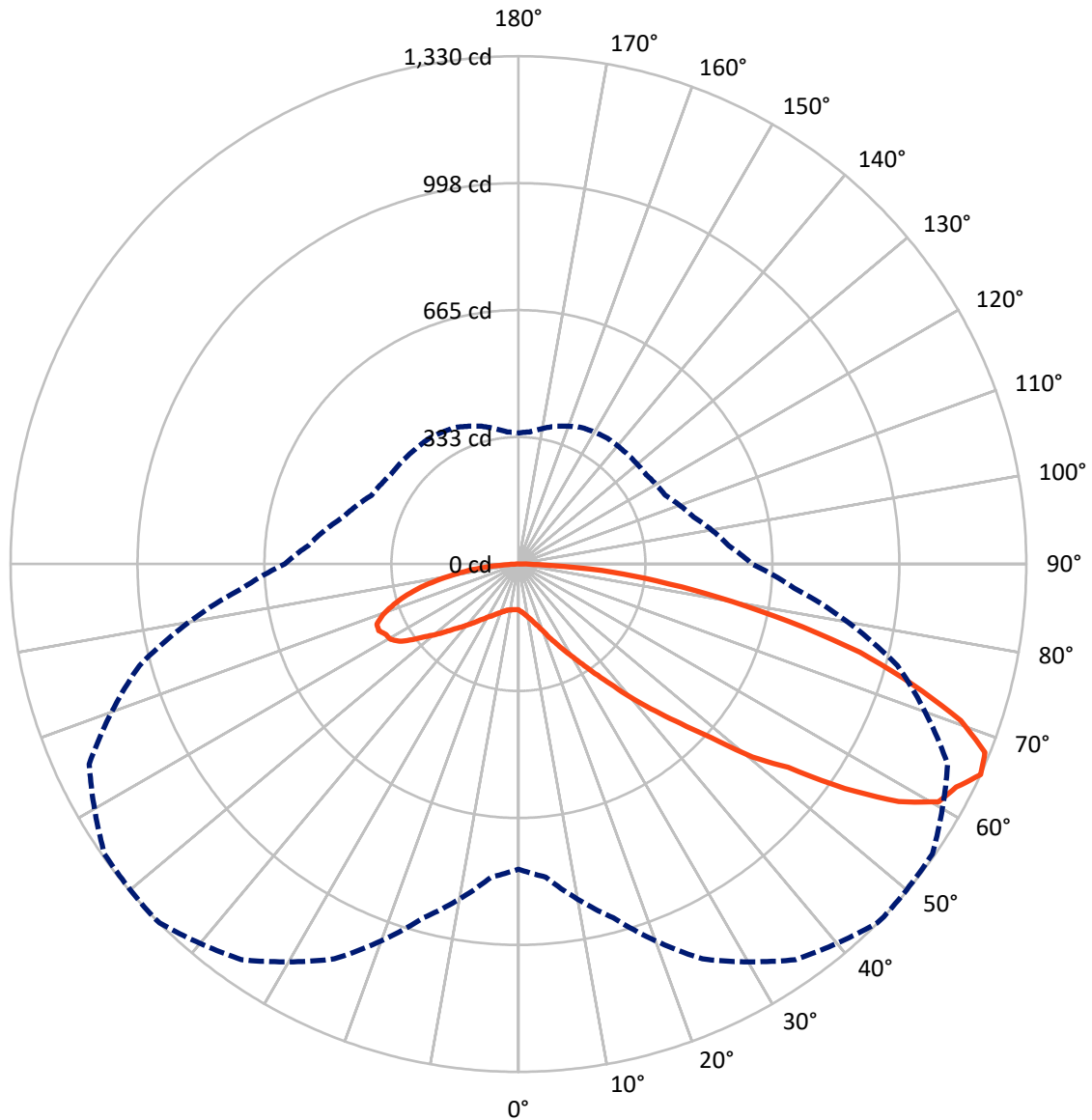
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.1 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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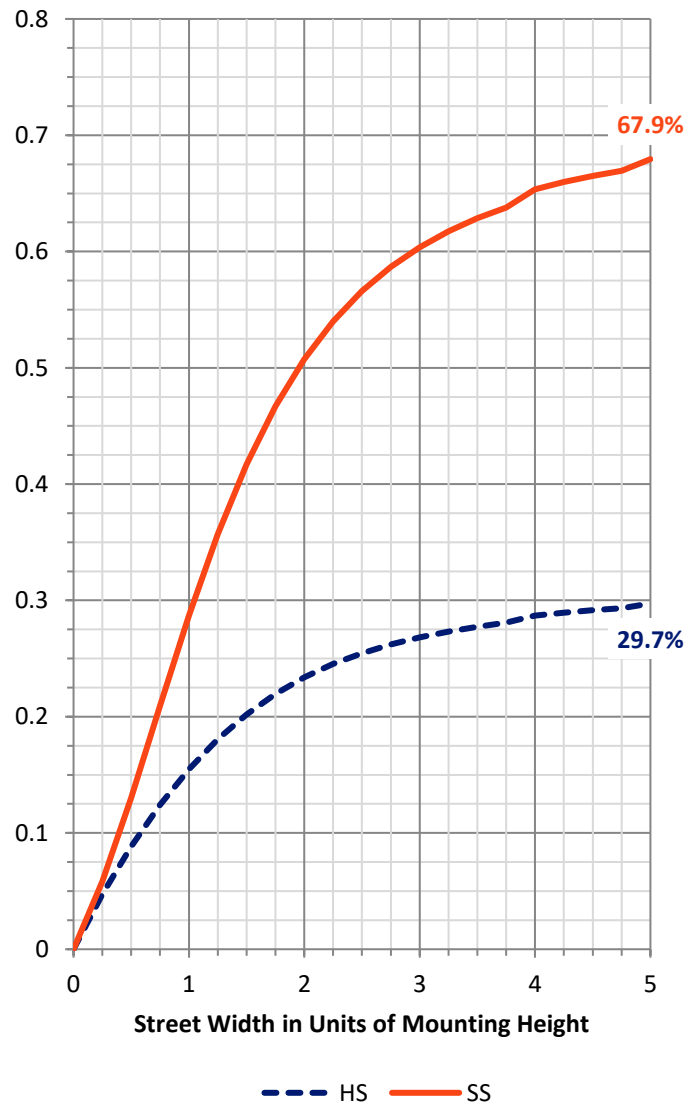
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	800.9	0.0	800.9
	% Fixture	30.4	0.0	30.4
<b>Street Side</b>	Lumens	1836.6	0.0	1836.6
	% Fixture	69.6	0.0	69.6
<b>Total</b>	Lumens	2637.5	0.0	2637.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	12.1	0.5
10°-20°	41.4	1.6
20°-30°	87.3	3.3
30°-40°	165.9	6.3
40°-50°	306.4	11.6
50°-60°	537.1	20.4
60°-70°	728.8	27.6
70°-80°	592.5	22.5
80°-90°	166.0	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°	2637.5	100.0
0°-180°	2637.5	100.0



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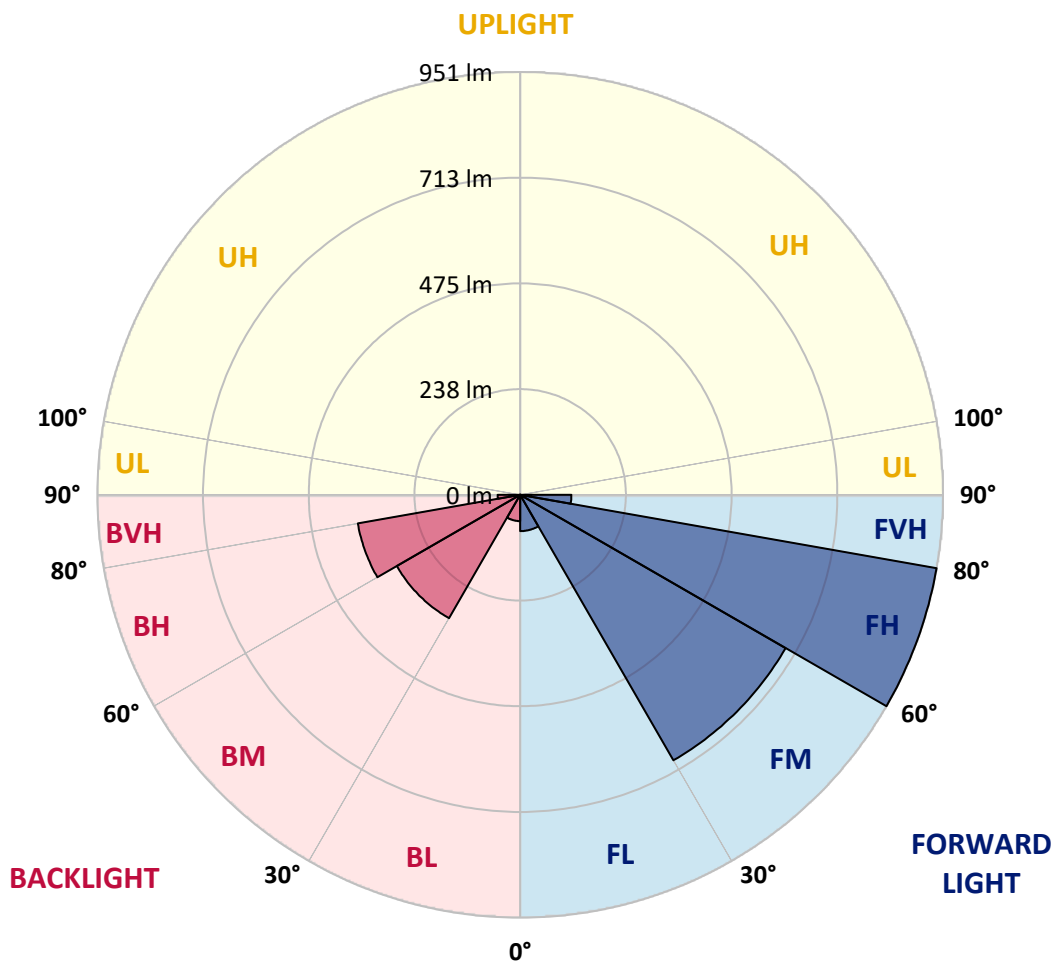
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	81.6	3.1			
FM	(30°-60°)	689.1	26.1			
FH	(60°-80°)	950.7	36.0			G1/1800
FVH	(80°-90°)	115.2	4.4			G2/225
BL	(0°-30°)	59.2	2.2	B0/110		
BM	(30°-60°)	320.3	12.1	B1/1000		
BH	(60°-80°)	370.7	14.1	B1/500		G1/500
BVH	(80°-90°)	50.8	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°	120.1	120.1	120.1	120.1	120.1	120.1	120.1	120.1	120.1	120.1	120.1
2.5°	124.9	125.4	125.4	125.4	124.9	124.3	124.3	123.8	123.3	123.3	122.7
5°	130.7	130.7	130.7	130.2	129.7	129.1	128.6	128.1	126.5	125.4	124.9
7.5°	137.7	137.7	137.7	137.1	136.1	134.5	135.0	133.4	131.8	129.7	127.5
10°	145.7	146.2	146.7	145.1	144.1	142.5	141.9	139.8	137.7	135.0	132.3
12.5°	155.3	154.7	155.8	154.2	153.1	150.5	149.9	147.3	143.5	140.3	137.1
15°	167.0	167.5	167.0	165.9	163.8	161.1	161.1	157.4	153.1	148.3	143.0
17.5°	183.5	183.5	181.4	180.9	177.1	173.9	172.9	169.7	162.7	156.9	150.5
20°	201.7	200.6	198.0	198.5	195.3	190.5	189.4	184.1	176.6	167.5	159.0
22.5°	222.5	221.4	218.2	217.7	213.4	209.7	209.7	202.2	192.1	180.3	168.6
25°	239.0	239.6	240.1	240.6	237.4	231.6	231.0	223.0	209.7	194.7	179.3
27.5°	259.3	262.0	261.4	264.1	262.5	257.2	256.1	247.6	231.0	213.4	194.2
30°	282.3	286.0	283.9	289.2	289.2	285.5	283.3	274.8	258.2	233.2	210.2
32.5°	307.9	308.4	311.6	318.5	321.7	319.6	318.0	310.0	288.7	260.9	231.0
35°	337.2	334.5	339.9	353.2	358.0	358.6	358.0	348.4	329.2	295.1	257.2
37.5°	366.6	365.5	375.6	389.0	403.4	409.2	406.6	403.4	375.6	332.9	284.4
40°	394.3	399.1	412.4	429.0	451.9	465.8	466.3	459.9	431.1	379.4	316.9
42.5°	421.5	431.1	448.2	477.0	506.3	528.8	526.1	520.8	495.7	433.8	358.6
45°	458.9	468.5	485.5	520.2	567.2	594.9	595.5	605.1	583.7	506.9	415.1
47.5°	493.0	501.5	526.6	573.0	630.7	681.4	679.2	693.1	665.9	574.1	459.4
50°	540.0	537.3	574.1	638.7	717.1	781.1	795.0	801.9	750.7	658.4	506.9
52.5°	581.6	578.9	624.8	711.2	808.9	891.6	884.1	901.2	879.8	772.6	608.3
55°	623.2	623.2	680.8	794.5	923.1	1031.4	1037.8	1066.6	1009.0	858.0	644.0
57.5°	669.1	673.9	755.5	897.4	1054.8	1173.3	1174.4	1177.0	1084.2	892.1	653.6
60°	713.4	726.2	832.4	998.8	1158.9	1256.0	1264.5	1227.7	1113.0	914.0	657.3
62.5°	762.5	775.3	905.4	1083.1	1235.7	1289.6	1286.9	1250.7	1160.5	975.3	704.8
65°	799.3	823.3	959.3	1141.3	1265.1	1329.1	1330.2	1323.8	1240.5	1027.6	724.6
67.5°	836.6	872.9	987.1	1163.7	1285.9	1319.5	1317.9	1293.3	1208.0	998.3	685.1
70°	876.6	903.3	1006.3	1143.4	1223.4	1227.7	1229.3	1194.1	1124.7	938.0	635.5
72.5°	890.5	909.7	976.9	1059.1	1096.5	1095.4	1080.5	1067.1	1008.4	845.7	564.5
75°	866.0	867.6	877.7	913.5	930.5	916.1	924.1	904.4	870.8	726.7	481.3
77.5°	769.9	767.3	738.4	725.6	726.2	723.0	723.5	699.5	685.1	598.7	390.6
80°	600.8	600.3	577.3	541.6	530.4	527.2	530.4	518.6	505.3	451.9	297.2
82.5°	416.7	410.3	400.2	371.9	370.3	363.9	365.5	363.4	357.0	321.2	210.8
85°	202.2	210.8	219.8	217.7	210.8	211.8	218.8	218.2	210.8	184.1	122.7
87.5°	27.7	40.0	41.6	40.0	50.7	63.5	50.7	51.8	41.6	42.7	27.2
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°	120.1	120.1	120.1	120.1	120.1	120.1	120.1	120.1	120.1	120.1	120.1
2.5°	122.2	121.7	121.1	120.6	120.1	119.5	119.0	119.0	118.5	118.5	118.5
5°	124.3	123.8	122.7	121.7	121.1	120.1	119.5	119.0	117.9	117.9	117.4
7.5°	126.5	125.9	124.3	122.7	121.7	120.6	120.1	119.5	119.0	117.9	117.9
10°	130.7	129.1	127.0	124.9	122.7	121.7	120.6	120.1	120.1	119.5	119.5
12.5°	135.0	133.4	129.7	127.0	124.3	122.7	121.7	121.7	121.1	121.1	120.6
15°	140.3	138.2	133.9	130.2	127.0	125.4	123.8	123.8	123.8	123.8	123.8
17.5°	146.7	143.5	138.7	134.5	131.3	129.1	127.5	127.5	127.0	127.5	128.1
20°	155.3	151.0	144.6	139.3	135.5	133.9	132.9	132.3	132.3	132.9	133.4
22.5°	163.3	158.5	149.9	144.6	141.4	138.7	138.2	138.2	137.7	138.7	138.7
25°	172.9	167.0	157.9	151.0	146.7	144.6	144.6	144.6	145.1	145.7	144.6
27.5°	185.7	178.7	166.5	157.9	154.2	152.1	151.0	152.1	152.6	153.1	152.1
30°	198.5	191.0	175.5	165.9	160.6	158.5	158.5	159.5	160.1	160.6	159.5
32.5°	216.1	204.9	188.3	176.1	170.2	168.1	168.1	168.6	168.6	169.7	169.1
35°	240.6	225.2	204.4	189.9	181.4	178.2	177.7	178.2	179.3	178.7	180.9
37.5°	264.1	246.5	220.4	204.9	196.3	191.5	189.4	188.9	189.9	190.5	191.0
40°	291.9	270.5	240.1	220.9	210.2	204.9	201.7	201.7	201.2	201.7	199.6
42.5°	327.6	303.6	265.2	240.6	225.7	220.9	215.0	213.4	211.8	212.4	209.2
45°	376.2	345.7	299.9	267.3	247.6	237.4	231.6	226.8	224.6	223.6	220.4
47.5°	409.8	377.2	327.6	292.4	271.6	258.2	249.2	242.8	237.4	234.8	235.3
50°	454.6	412.4	361.2	318.5	297.2	282.3	271.6	260.4	252.4	249.2	250.8
52.5°	539.4	488.7	409.2	359.1	323.3	306.8	295.6	281.7	270.0	264.1	265.7
55°	567.7	516.0	442.9	391.6	359.6	339.3	321.7	305.2	289.7	280.1	280.7
57.5°	570.4	519.2	448.7	406.0	384.2	370.3	353.7	331.9	310.5	297.2	296.1
60°	567.7	515.4	447.7	404.4	389.0	388.4	378.3	359.1	334.0	314.3	312.7
62.5°	605.1	549.0	466.9	413.5	391.6	393.2	395.4	382.0	356.4	332.4	327.1
65°	612.0	552.8	474.9	424.7	408.2	405.0	403.4	394.3	373.5	347.3	343.1
67.5°	577.8	521.8	450.9	407.6	396.4	403.4	409.2	401.2	381.5	361.8	355.9
70°	532.5	481.8	415.6	375.6	369.2	379.9	392.7	395.4	384.2	368.2	366.0
72.5°	471.7	429.0	370.8	338.8	336.1	344.1	359.1	371.4	369.8	366.0	365.0
75°	401.8	368.7	318.0	293.5	293.5	303.6	314.8	328.1	338.3	344.7	346.3
77.5°	330.8	297.7	260.4	239.6	242.2	255.6	263.6	276.9	288.1	296.7	297.2
80°	248.6	230.5	198.0	186.7	187.8	196.9	208.1	216.1	225.2	232.6	230.5
82.5°	179.8	163.3	140.9	134.5	138.7	143.0	152.1	159.0	161.7	163.8	168.1
85°	103.5	98.7	86.4	82.7	83.8	88.0	93.4	95.0	97.6	96.6	98.7
87.5°	25.1	26.7	25.1	24.5	25.1	24.0	22.9	27.7	28.3	28.8	27.7
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)