

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: P821312

Luminaire Tested: **TT-D4-740-24VDC-DL**

Issue Date: 5/19/2020



Test Information

Test Method: LM-79-08
Report Number: P821312
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1908-473-26)
Test Lab: INNOVATION CENTER
Issue Date: 5/19/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-D4-740-24VDC-DL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE
4000K, 70 CRI LEDS AND DRIVE LANE DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

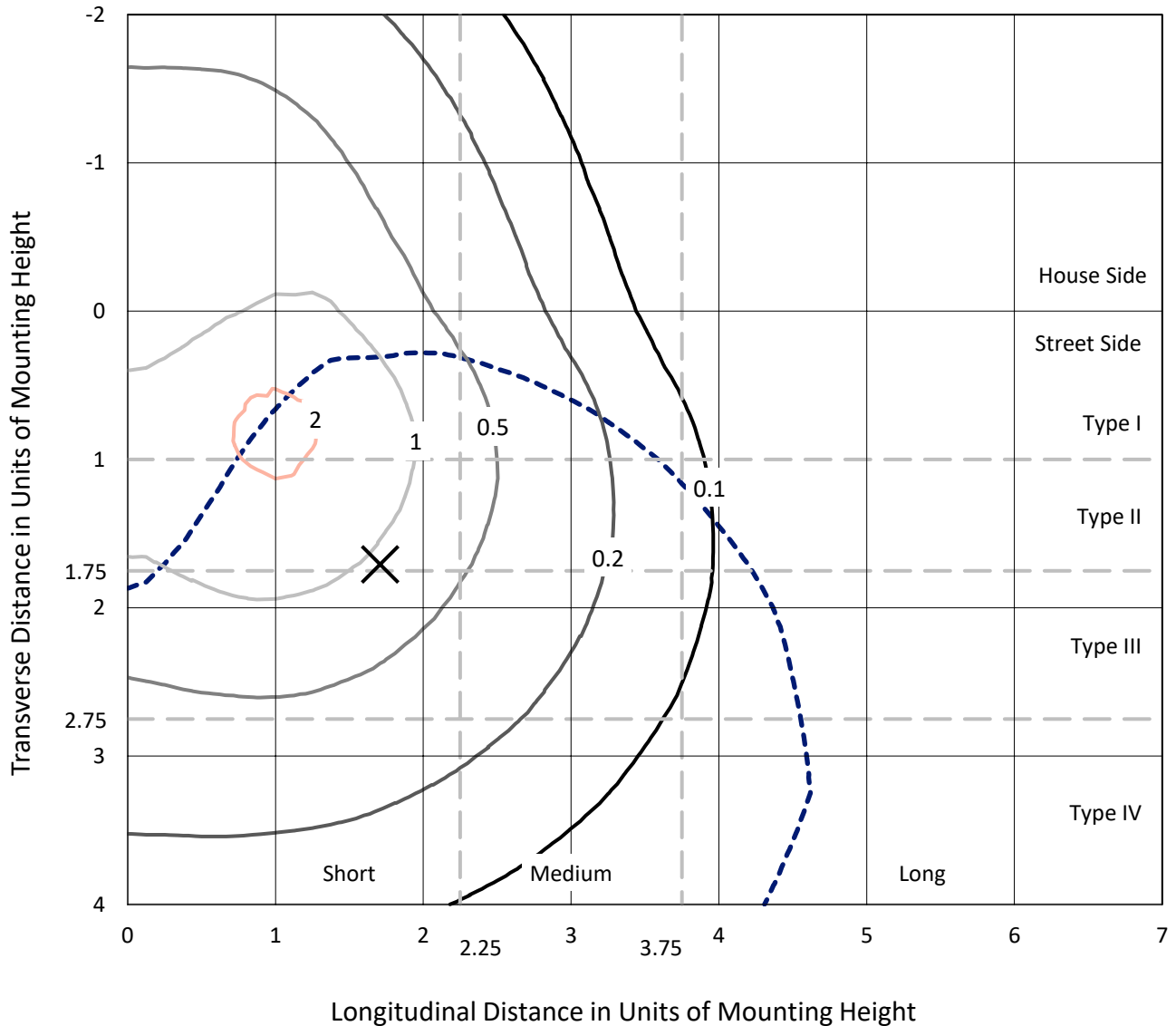
Lumens per Lamp: N/A
Luminaire Lumens: 6314 lumens
Efficiency: N/A
Efficacy: 110.8 lumens/watt
Luminous Opening: Circular (Dia: 1.12' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

Input Watts (W): 57
Input Voltage (V): NR
Input Current (A_{in}): 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

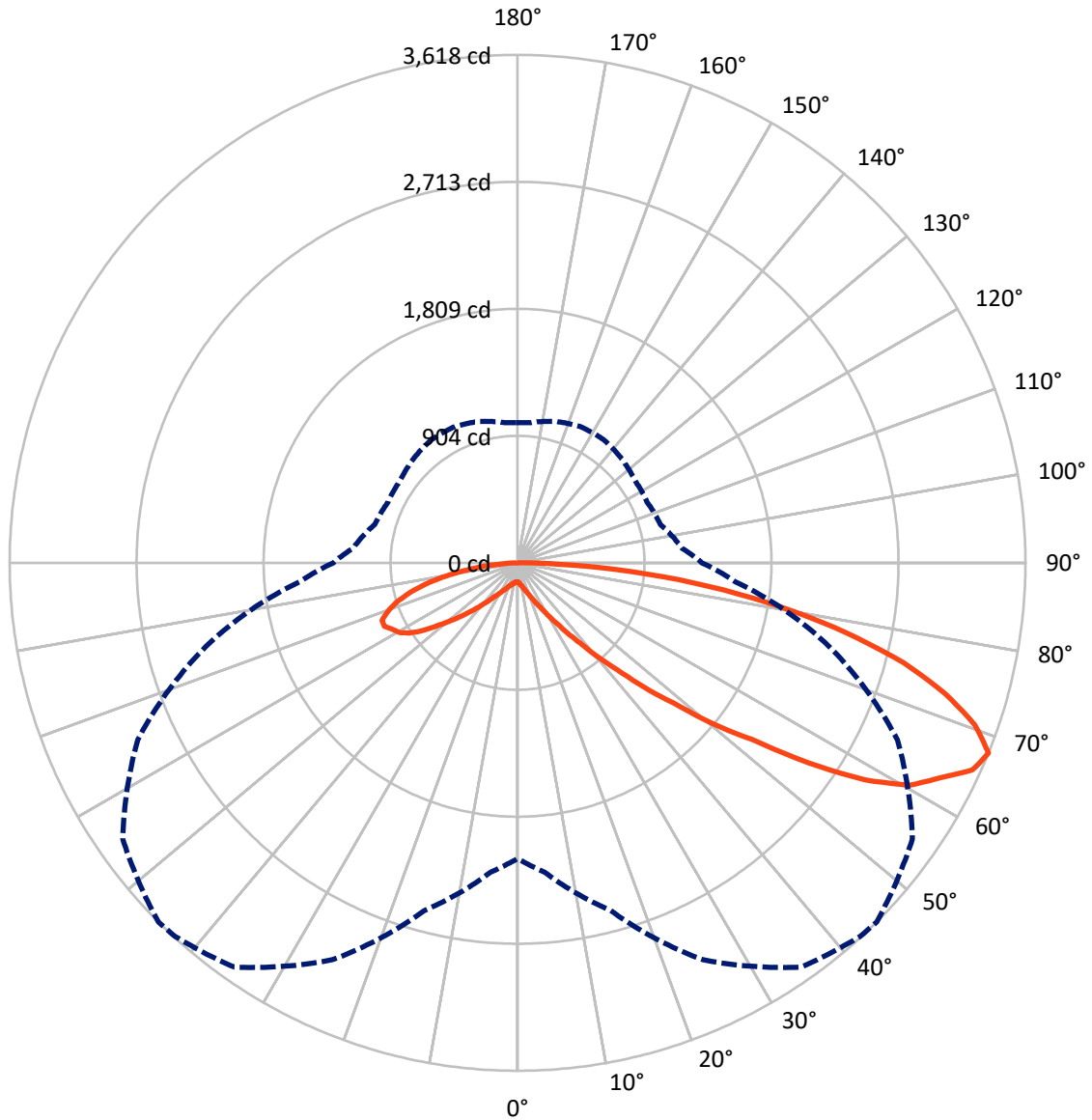
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 2.1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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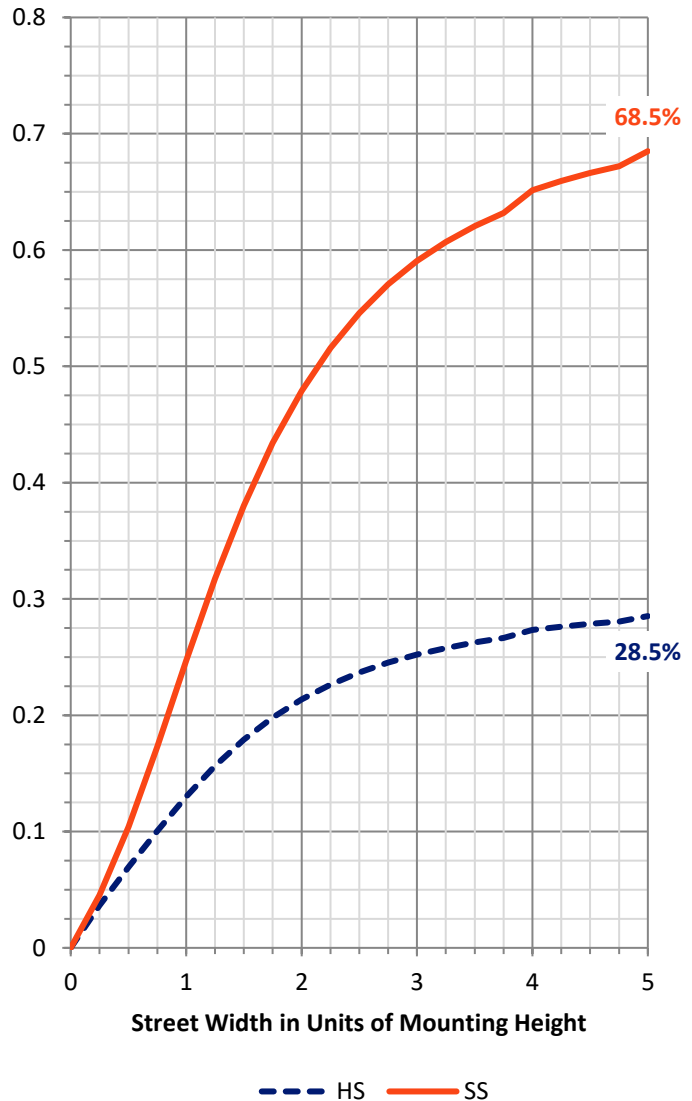
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1839.9	0.0	1839.9
	% Fixture	29.1	0.0	29.1
Street Side	Lumens	4474.1	0.0	4474.1
	% Fixture	70.9	0.0	70.9
Total	Lumens	6314.0	0.0	6314.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	14.1	0.2
10°-20°	52.4	0.8
20°-30°	123.9	2.0
30°-40°	280.3	4.4
40°-50°	625.0	9.9
50°-60°	1256.4	19.9
60°-70°	1845.3	29.2
70°-80°	1622.7	25.7
80°-90°	494.0	7.8
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°	6314.0	100.0
0°-180°	6314.0	100.0

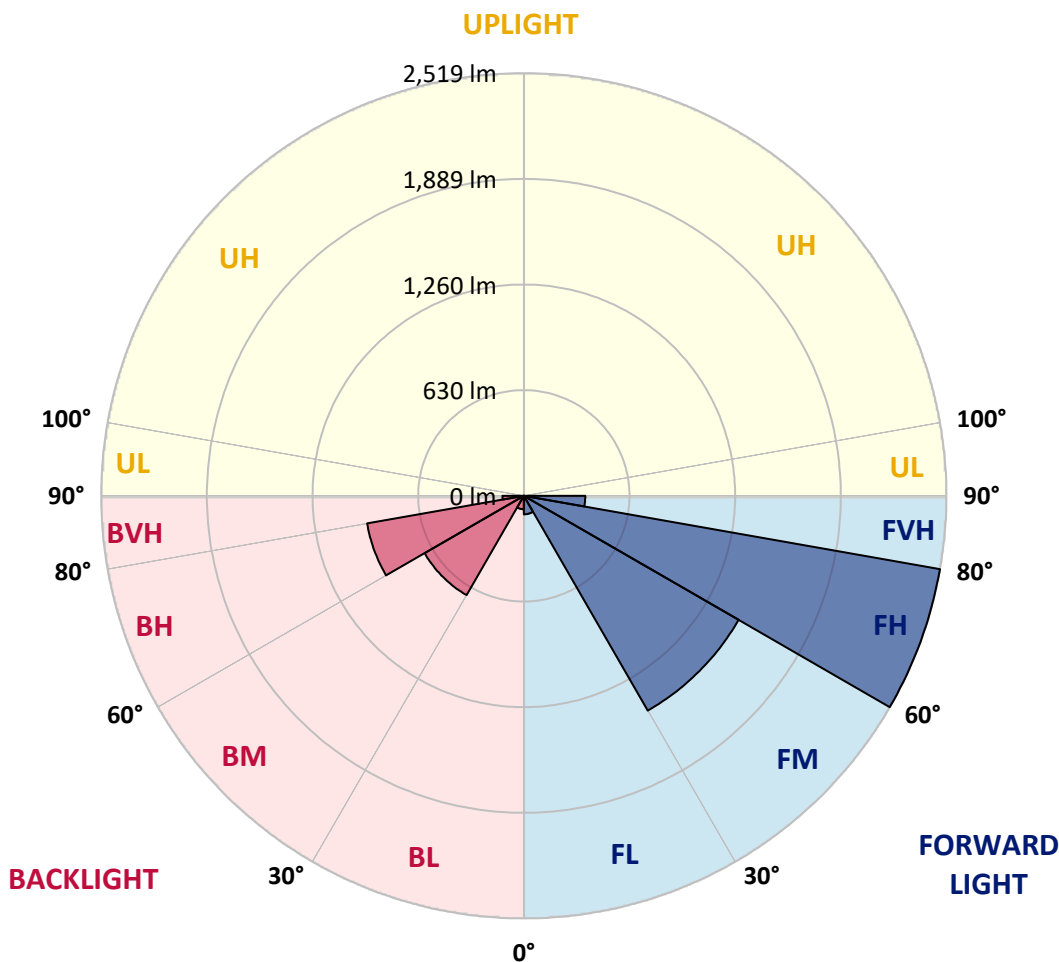


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	110.3	1.7			
FM (30°-60°)	1478.6	23.4			
FH (60°-80°)	2519.2	39.9			G2/5000
FVH (80°-90°)	366.0	5.8			G3/500
BL (0°-30°)	80.1	1.3	B0/110		
BM (30°-60°)	683.1	10.8	B1/1000		
BH (60°-80°)	948.8	15.0	B2/1000		G2/1000
BVH (80°-90°)	128.0	2.0			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	42.5°	45°	55°	65°	75°	85°
0°	137.0	137.0	137.0	137.0	137.0	137.0	137.0	137.0	137.0	137.0	137.0
2.5°	142.9	141.7	141.7	141.7	140.5	140.5	140.5	140.5	139.3	139.3	139.3
5°	151.1	149.9	151.1	148.8	147.6	147.6	146.4	146.4	145.2	144.0	142.9
7.5°	162.9	161.8	161.8	159.4	158.2	157.0	157.0	154.7	153.5	151.1	148.8
10°	175.9	175.9	174.7	173.6	171.2	168.8	168.8	165.3	164.1	160.6	157.0
12.5°	191.3	191.3	191.3	188.9	186.5	185.4	183.0	180.6	177.1	171.2	167.7
15°	210.2	210.2	210.2	207.8	205.4	203.1	201.9	197.2	191.3	185.4	178.3
17.5°	233.8	231.4	231.4	229.0	226.7	225.5	223.1	218.4	210.2	203.1	193.6
20°	259.7	258.6	257.4	257.4	255.0	252.7	251.5	244.4	235.0	222.0	210.2
22.5°	289.3	288.1	288.1	290.4	289.3	285.7	285.7	275.1	262.1	246.8	229.0
25°	325.9	324.7	327.0	331.8	331.8	329.4	325.9	315.2	296.3	275.1	253.8
27.5°	366.0	364.8	369.5	377.8	380.2	376.6	374.3	362.5	341.2	312.9	282.2
30°	414.4	415.6	428.6	438.0	443.9	441.6	440.4	427.4	393.2	360.1	320.0
32.5°	473.4	469.9	486.4	501.8	512.4	518.3	514.8	499.4	469.9	418.0	367.2
35°	536.0	537.2	557.3	579.7	604.5	606.9	613.9	598.6	558.5	497.1	426.2
37.5°	617.5	608.0	634.0	676.5	706.0	732.0	727.3	717.8	670.6	589.1	492.3
40°	690.7	688.3	724.9	784.0	838.3	876.0	880.8	869.0	806.4	690.7	563.2
42.5°	774.5	781.6	832.4	913.8	996.5	1050.8	1037.8	1031.9	958.7	811.1	660.0
45°	859.5	883.1	948.1	1066.1	1162.9	1240.9	1263.3	1243.2	1153.5	1001.2	782.8
47.5°	962.2	994.1	1074.4	1233.8	1392.0	1482.9	1487.6	1547.8	1412.1	1184.2	910.3
50°	1098.0	1112.2	1224.3	1419.2	1636.4	1763.9	1800.5	1801.7	1665.9	1368.4	1054.3
52.5°	1231.4	1242.1	1389.6	1641.1	1936.3	2081.5	2089.8	2135.8	1950.4	1665.9	1260.9
55°	1392.0	1387.3	1590.3	1892.6	2240.9	2452.2	2513.6	2576.2	2340.1	1900.9	1379.0
57.5°	1547.8	1540.8	1785.2	2181.9	2657.7	2867.8	2918.6	2873.7	2523.1	1998.9	1436.9
60°	1691.9	1716.7	2014.2	2501.8	2980.0	3180.7	3214.9	3093.3	2641.1	2074.4	1473.5
62.5°	1841.8	1891.4	2251.5	2768.6	3226.7	3370.8	3373.1	3230.3	2838.3	2220.8	1592.7
65°	1982.3	2061.4	2435.7	2996.5	3399.1	3543.2	3559.7	3431.0	3031.9	2348.3	1612.8
67.5°	2106.3	2211.4	2563.2	3119.3	3516.0	3609.3	3617.5	3432.2	2985.9	2296.4	1557.3
70°	2206.7	2291.7	2642.3	3121.7	3434.5	3460.5	3454.6	3257.4	2858.4	2193.7	1464.0
72.5°	2245.6	2315.3	2604.5	2975.3	3194.9	3189.0	3184.2	3002.4	2648.2	2022.5	1329.4
75°	2190.1	2210.2	2397.9	2662.4	2801.7	2834.8	2839.5	2675.4	2323.5	1768.6	1140.5
77.5°	1961.1	1950.4	2094.5	2269.2	2374.3	2397.9	2393.2	2256.2	1948.1	1469.9	956.3
80°	1554.9	1577.4	1667.1	1782.8	1887.9	1913.8	1897.3	1793.4	1516.0	1146.4	734.4
82.5°	1087.4	1114.5	1190.1	1277.5	1356.6	1356.6	1371.9	1271.6	1074.4	822.9	513.6
85°	586.8	571.4	654.1	753.3	809.9	820.6	826.5	793.4	664.7	497.1	304.6
87.5°	96.8	103.9	128.7	197.2	224.3	259.7	276.3	216.1	131.1	83.8	61.4
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°	137.0	137.0	137.0	137.0	137.0	137.0	137.0	137.0	137.0	137.0	137.0
2.5°	139.3	138.1	137.0	135.8	135.8	134.6	134.6	134.6	135.8	135.8	135.8
5°	142.9	141.7	140.5	139.3	137.0	137.0	137.0	137.0	137.0	137.0	137.0
7.5°	148.8	146.4	145.2	142.9	140.5	140.5	139.3	139.3	139.3	140.5	139.3
10°	155.8	153.5	151.1	147.6	146.4	145.2	144.0	144.0	145.2	145.2	144.0
12.5°	164.1	162.9	158.2	154.7	152.3	151.1	149.9	151.1	149.9	151.1	151.1
15°	175.9	172.4	166.5	162.9	159.4	158.2	157.0	158.2	158.2	159.4	158.2
17.5°	188.9	184.2	178.3	172.4	167.7	166.5	166.5	166.5	167.7	168.8	167.7
20°	204.3	198.4	190.1	183.0	178.3	177.1	177.1	178.3	179.5	180.6	180.6
22.5°	219.6	214.9	203.1	193.6	191.3	190.1	188.9	191.3	193.6	194.8	196.0
25°	243.2	233.8	219.6	209.0	204.3	204.3	205.4	207.8	209.0	211.3	210.2
27.5°	268.0	257.4	239.7	225.5	222.0	220.8	223.1	225.5	230.2	230.2	229.0
30°	302.2	284.5	262.1	249.1	239.7	240.9	244.4	247.9	252.7	255.0	255.0
32.5°	341.2	322.3	291.6	271.6	266.8	268.0	269.2	275.1	279.8	284.5	281.0
35°	392.0	368.4	330.6	308.2	296.3	295.2	299.9	307.0	311.7	314.1	314.1
37.5°	447.5	416.8	369.5	350.7	336.5	335.3	336.5	342.4	348.3	350.7	355.4
40°	514.8	477.0	421.5	390.8	380.2	377.8	382.5	390.8	390.8	394.3	395.5
42.5°	597.4	549.0	487.6	447.5	434.5	434.5	433.3	440.4	440.4	440.4	438.0
45°	702.5	648.2	567.9	526.6	504.1	492.3	495.9	491.2	490.0	493.5	482.9
47.5°	804.0	735.6	641.1	596.2	573.8	566.7	553.7	550.2	544.3	544.3	528.9
50°	922.1	837.1	746.2	682.4	661.2	641.1	630.5	613.9	596.2	592.7	586.8
52.5°	1119.3	1013.0	870.1	801.7	747.4	727.3	702.5	681.2	660.0	643.5	652.9
55°	1199.5	1090.9	955.2	889.0	851.3	832.4	786.3	758.0	726.1	702.5	715.5
57.5°	1239.7	1121.6	995.3	945.7	935.1	917.4	883.1	834.7	798.1	768.6	771.0
60°	1262.1	1138.2	1016.5	971.7	965.8	977.6	959.9	926.8	870.1	840.6	837.1
62.5°	1348.3	1218.4	1076.8	1013.0	1000.0	1008.3	1013.0	992.9	945.7	906.7	896.1
65°	1366.0	1227.9	1088.6	1047.2	1048.4	1050.8	1054.3	1033.1	1009.5	961.1	951.6
67.5°	1312.9	1177.1	1053.1	1018.9	1021.3	1048.4	1069.7	1068.5	1042.5	1001.2	997.7
70°	1232.6	1100.4	985.9	955.2	961.1	985.9	1031.9	1055.5	1050.8	1023.6	1029.5
72.5°	1107.5	989.4	889.0	865.4	879.6	903.2	946.9	989.4	1014.2	1020.1	1033.1
75°	961.1	866.6	772.2	758.0	768.6	795.8	835.9	885.5	939.8	969.3	977.6
77.5°	793.4	707.2	637.6	628.1	643.5	668.3	708.4	747.4	808.8	860.7	872.5
80°	621.0	546.6	497.1	488.8	498.2	519.5	550.2	582.1	641.1	681.2	687.1
82.5°	430.9	386.1	354.2	349.5	355.4	363.6	388.4	418.0	451.0	482.9	486.4
85°	250.3	222.0	213.7	206.6	219.6	219.6	225.5	242.0	258.6	260.9	268.0
87.5°	46.0	43.7	44.9	33.1	41.3	29.5	29.5	37.8	28.3	33.1	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

(END OF REPORT)