

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: LUMARK

Report Number: P233794

Luminaire Tested: **VRDN-C018-D-UNV-T4-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233794
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-34)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: VRDN-C018-D-UNV-T4-HSS
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1210mA LED AND TYPE IV OPTIC WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6090 lumens
Efficiency: N/A
Efficacy: 121.8 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

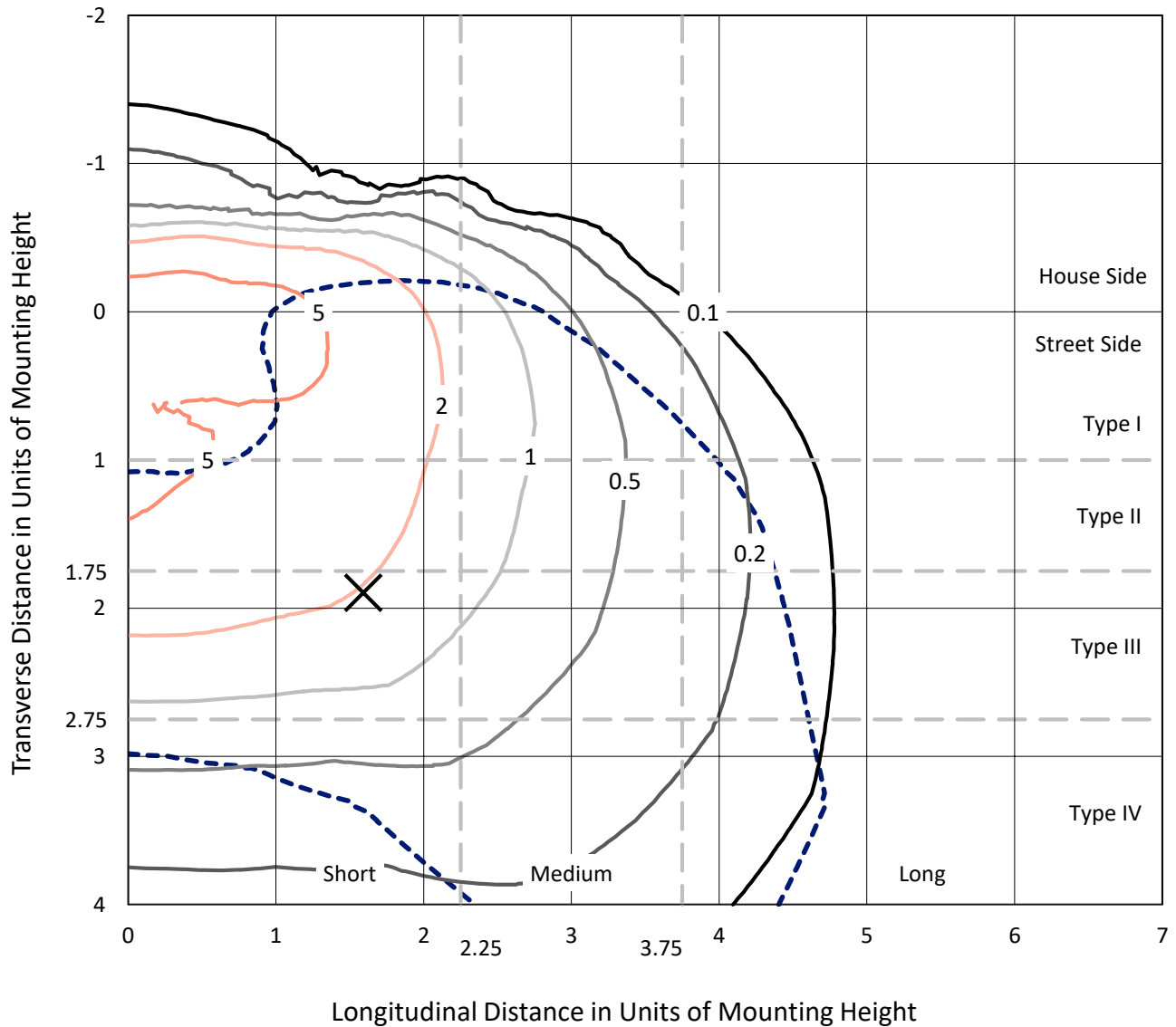
Input Watts (W): 50
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P233794
 CATALOG NUMBER: VRDN-C018-D-UNV-T4-HSS

Iso-Footcandle Lines of Horizontal Illumination

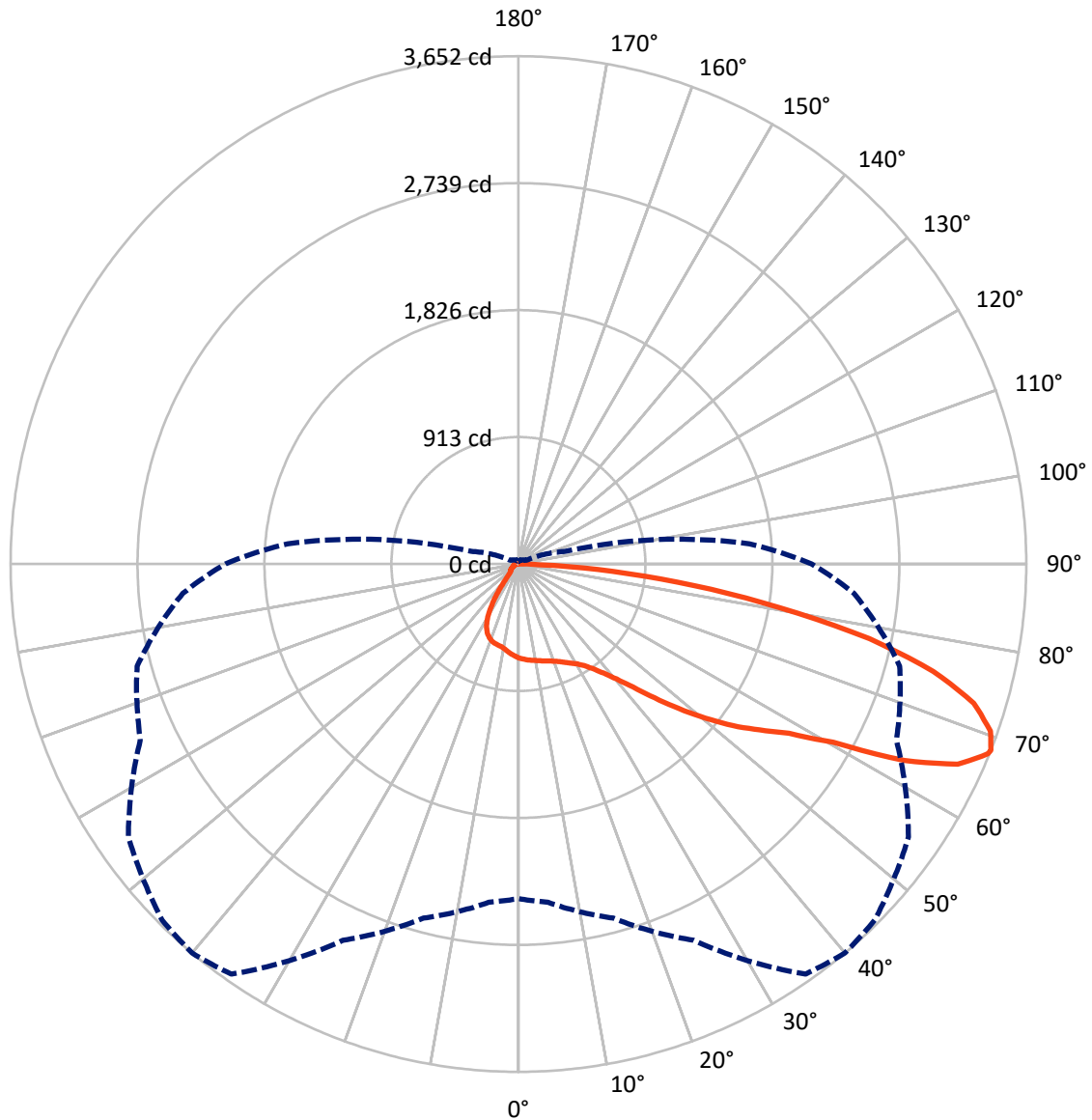
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.3 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P233794
CATALOG NUMBER: VRDN-C018-D-UNV-T4-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P233794

CATALOG NUMBER: VRDN-C018-D-UNV-T4-HSS

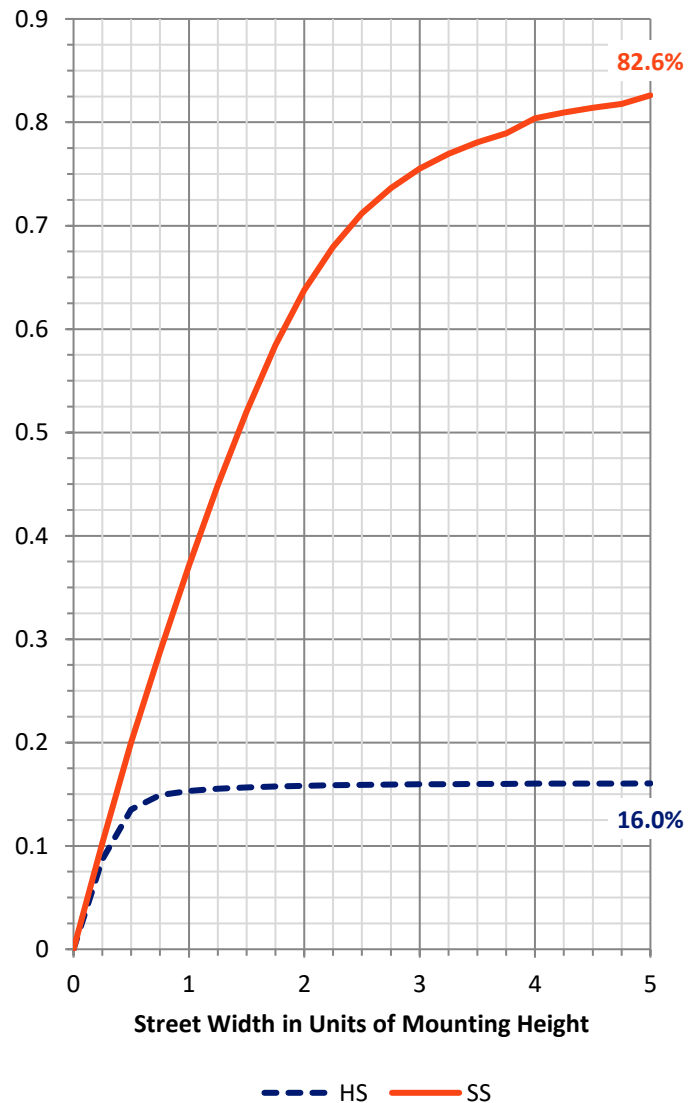
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	987.9	0.0	987.9
	% Fixture	16.2	0.0	16.2
Street Side	Lumens	5102.1	0.0	5102.1
	% Fixture	83.8	0.0	83.8
Total	Lumens	6090.0	0.0	6090.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.2	1.1
10°-20°	192.3	3.2
20°-30°	322.7	5.3
30°-40°	478.0	7.8
40°-50°	808.6	13.3
50°-60°	1234.0	20.3
60°-70°	1615.8	26.5
70°-80°	1161.7	19.1
80°-90°	212.7	3.5
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°	6090.0	100.0
0°-180°	6090.0	100.0



REPORT NUMBER: P233794

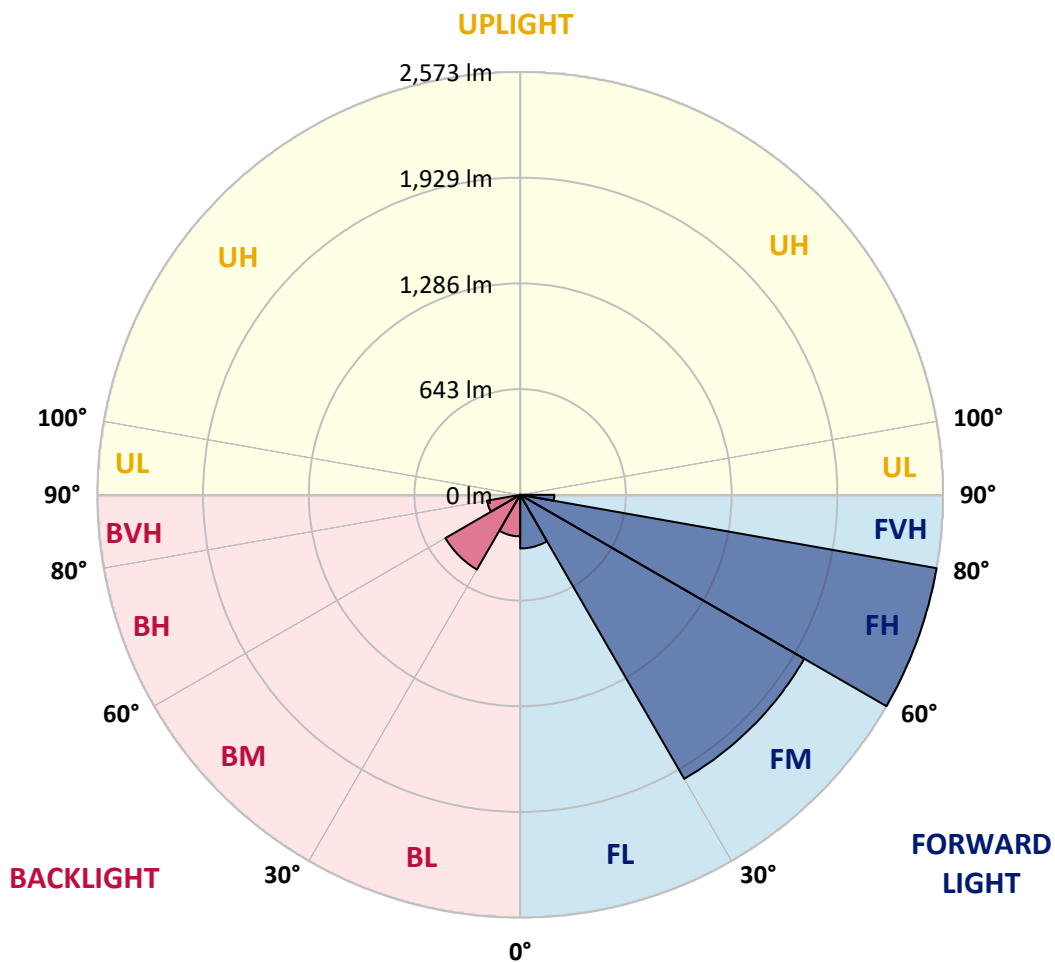
CATALOG NUMBER: VRDN-C018-D-UNV-T4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	326.5	5.4			
FM	(30°-60°)	1995.5	32.8			
FH	(60°-80°)	2572.5	42.2			G2/5000
FVH	(80°-90°)	207.6	3.4			G2/225
BL	(0°-30°)	252.8	4.2	B1/500		
BM	(30°-60°)	525.1	8.6	B1/1000		
BH	(60°-80°)	205.0	3.4	B1/500		G1/500
BVH	(80°-90°)	5.0	0.1			G0/10
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





REPORT NUMBER: P233794

CATALOG NUMBER: VRDN-C018-D-UNV-T4-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	676.7	676.7	676.7	676.7	676.7	676.7	676.7	676.7	676.7	676.7	676.7
2.5°	698.1	699.7	697.6	692.5	686.9	683.9	683.3	682.8	680.3	676.7	671.6
5°	705.3	705.8	703.7	699.7	694.6	693.5	692.0	692.5	691.0	687.4	681.8
7.5°	708.3	709.4	706.8	702.7	698.6	698.6	698.1	699.7	698.6	697.1	690.5
10°	707.3	708.8	707.3	705.8	704.3	705.8	704.8	708.3	708.8	708.8	701.2
12.5°	705.8	707.8	708.3	709.9	712.4	713.9	716.0	723.6	727.2	729.8	723.6
15°	707.3	708.3	712.4	715.0	720.1	723.6	728.2	741.0	747.1	754.2	751.2
17.5°	713.9	716.5	722.6	725.2	730.3	732.8	738.4	754.2	766.5	779.2	781.3
20°	728.2	729.8	740.0	741.0	743.5	746.1	752.2	769.5	787.9	806.2	811.3
22.5°	744.0	747.6	757.3	755.8	760.9	761.9	767.5	786.4	811.9	834.3	845.5
25°	760.4	763.4	773.1	774.1	780.2	784.3	790.9	809.3	841.9	870.5	890.4
27.5°	774.1	780.2	789.4	790.4	802.2	807.3	817.0	837.9	877.1	912.3	945.0
30°	799.6	801.1	809.8	812.9	828.7	833.3	844.5	871.0	918.9	962.8	1013.8
32.5°	831.2	830.7	838.9	844.0	863.4	871.5	885.8	916.4	969.4	1024.0	1096.4
35°	889.4	884.3	889.4	894.5	916.9	925.6	940.9	986.8	1049.0	1141.8	1231.0
37.5°	1023.0	1015.3	1004.6	979.1	984.7	996.0	1018.4	1080.6	1172.4	1344.8	1430.9
40°	1254.5	1237.7	1192.8	1125.5	1085.7	1086.7	1107.6	1189.2	1323.9	1577.3	1642.1
42.5°	1464.1	1452.4	1398.3	1306.0	1214.2	1209.1	1216.3	1311.6	1489.1	1793.0	1826.7
45°	1661.4	1667.1	1588.5	1516.1	1406.5	1372.8	1364.1	1442.2	1672.2	1985.3	1988.3
47.5°	1844.0	1853.2	1758.3	1690.0	1581.9	1552.8	1525.8	1579.3	1845.0	2149.0	2124.0
50°	2040.3	2047.5	1915.9	1859.8	1769.1	1742.0	1721.6	1745.1	2022.0	2300.9	2244.8
52.5°	2311.6	2271.9	2106.6	2013.8	1933.3	1931.2	1915.4	1930.2	2223.4	2437.6	2336.6
55°	2631.9	2527.9	2352.4	2204.0	2100.5	2106.1	2087.3	2111.7	2422.8	2554.9	2421.8
57.5°	2745.1	2742.6	2661.0	2518.7	2308.6	2295.8	2263.2	2290.7	2595.2	2664.5	2482.0
60°	2902.2	2916.0	2925.1	2839.5	2718.1	2602.3	2493.2	2490.6	2755.8	2764.5	2511.6
62.5°	3003.7	3016.4	3087.8	3076.6	3151.6	3113.3	2988.9	2713.0	2878.7	2829.3	2522.8
65°	2814.0	2845.6	3025.6	3162.8	3418.3	3471.8	3454.0	3054.7	2962.4	2848.1	2501.9
67.5°	2470.8	2512.1	2709.4	3030.2	3583.5	3643.2	3610.5	3398.9	2998.6	2840.0	2444.2
68°	2406.5	2442.2	2636.0	2985.8	3600.3	3652.3	3622.8	3424.4	3000.1	2838.9	2422.3
70°	2097.5	2126.5	2315.7	2758.4	3553.4	3601.8	3597.8	3448.3	2986.8	2807.3	2274.9
72.5°	1627.3	1656.3	1824.1	2287.7	3336.7	3425.4	3421.8	3352.5	2962.4	2646.2	1907.2
75°	1176.5	1208.6	1361.6	1757.8	2887.4	3082.7	3122.0	3188.3	2707.9	2227.0	1357.0
77.5°	849.6	873.1	1005.1	1327.9	2358.6	2581.9	2661.5	2728.3	2216.3	1623.2	645.6
80°	566.6	583.4	710.9	987.3	1776.7	1908.3	1993.9	1882.3	1261.1	587.0	69.9
82.5°	348.8	359.5	460.0	692.5	1229.0	1270.3	1270.8	1004.1	406.4	56.1	37.7
85°	187.2	190.7	249.9	377.9	649.2	680.3	668.0	421.7	82.1	30.1	20.4
87.5°	30.1	32.6	78.5	141.8	200.4	154.5	98.9	31.1	8.2	4.6	3.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P233794

CATALOG NUMBER: VRDN-C018-D-UNV-T4-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	676.7	676.7	676.7	676.7	676.7	676.7	676.7	676.7	676.7	676.7	676.7
2.5°	674.2	672.6	668.6	666.5	661.4	662.9	662.9	658.9	660.9	669.1	668.0
5°	680.3	680.8	671.1	666.0	654.8	651.7	647.1	641.0	640.5	646.1	646.6
7.5°	685.4	687.9	674.2	664.0	648.7	638.0	628.8	618.1	615.5	619.1	619.1
10°	693.5	696.1	678.8	664.5	642.0	624.7	608.9	595.1	589.5	589.5	590.0
12.5°	715.0	713.4	693.5	671.6	645.1	617.6	592.6	574.2	561.0	560.4	558.4
15°	744.5	738.9	719.6	686.4	652.2	617.1	582.4	553.8	530.9	524.7	522.2
17.5°	776.2	769.0	745.6	705.3	663.5	616.5	570.6	530.9	492.6	477.8	473.2
20°	810.3	801.7	777.7	727.2	674.7	613.0	553.3	497.7	445.7	417.7	410.5
22.5°	848.1	840.9	811.9	749.6	682.3	605.3	526.3	455.9	389.6	349.3	346.3
25°	897.0	890.4	847.6	769.5	682.8	591.0	490.6	402.4	319.2	271.8	262.1
27.5°	955.7	943.9	876.1	781.8	674.7	566.1	444.2	331.0	237.1	197.4	196.3
30°	1019.4	998.0	899.1	784.8	656.3	526.3	380.4	243.3	168.3	141.3	141.3
32.5°	1094.4	1055.1	922.5	779.7	626.2	471.2	291.2	168.8	115.8	103.0	103.0
35°	1204.0	1143.3	952.6	767.0	583.9	395.2	207.0	111.7	91.3	89.8	89.8
37.5°	1377.4	1276.4	993.4	745.6	525.8	301.4	134.6	86.2	87.2	87.2	86.7
40°	1562.0	1430.4	1049.5	711.4	452.8	208.1	88.2	81.6	83.1	84.1	83.6
42.5°	1728.8	1576.8	1110.7	665.5	366.7	131.1	80.6	78.5	77.5	78.5	79.0
45°	1873.1	1703.8	1172.4	605.8	270.8	85.7	78.5	73.9	70.9	71.4	71.9
47.5°	1996.5	1803.7	1214.2	543.1	179.5	76.0	76.0	67.8	64.8	64.8	64.8
50°	2104.6	1892.5	1239.7	468.1	107.1	75.0	71.4	62.2	59.2	58.6	59.2
52.5°	2183.1	1954.7	1236.7	376.9	71.9	72.4	65.3	57.1	53.5	54.6	55.1
55°	2245.4	1993.9	1209.6	275.9	67.3	67.8	60.7	51.5	49.0	49.5	49.5
57.5°	2284.6	2003.6	1154.5	179.5	65.8	60.7	54.6	45.9	42.8	42.8	42.8
60°	2297.4	1998.5	1079.6	114.7	65.3	54.6	49.5	41.3	38.2	38.2	38.2
62.5°	2286.7	1969.0	952.6	82.6	60.7	51.0	44.9	36.7	33.7	32.6	32.6
65°	2248.4	1889.9	734.3	68.3	54.6	46.9	40.8	33.1	29.1	27.5	27.0
67.5°	2136.7	1718.6	427.3	64.3	49.5	42.8	37.7	30.1	25.5	22.9	22.4
68°	2107.7	1667.6	351.4	63.7	49.5	42.3	37.2	29.1	24.5	21.9	21.4
70°	1899.6	1345.3	101.0	60.7	48.4	40.8	34.2	26.5	21.9	18.9	18.4
72.5°	1430.4	788.4	63.2	54.1	47.9	36.2	33.1	26.5	19.4	16.3	15.3
75°	798.6	179.5	53.5	40.3	44.9	35.7	32.6	24.0	17.3	13.3	12.7
77.5°	164.2	52.0	45.9	28.0	34.2	31.1	27.5	20.4	15.8	10.2	9.7
80°	46.4	38.8	40.8	20.4	19.4	21.9	20.4	17.8	11.7	7.6	7.6
82.5°	30.1	28.6	36.7	13.8	10.2	10.2	13.3	10.7	10.2	6.1	6.1
85°	18.4	24.0	17.8	6.1	5.1	4.1	4.6	4.6	6.1	4.1	4.1
87.5°	2.5	2.5	2.5	2.5	2.5	2.0	1.5	1.5	1.5	2.0	2.0
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)