

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: P233795

Luminaire Tested: **VRDN-C01-D-UNV-T4-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233795
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-C01-D-UNV-T4-HSS
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1230mA LED AND TYPE IV OPTIC WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7291 lumens
Efficiency: N/A
Efficacy: 130.2 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 - G3

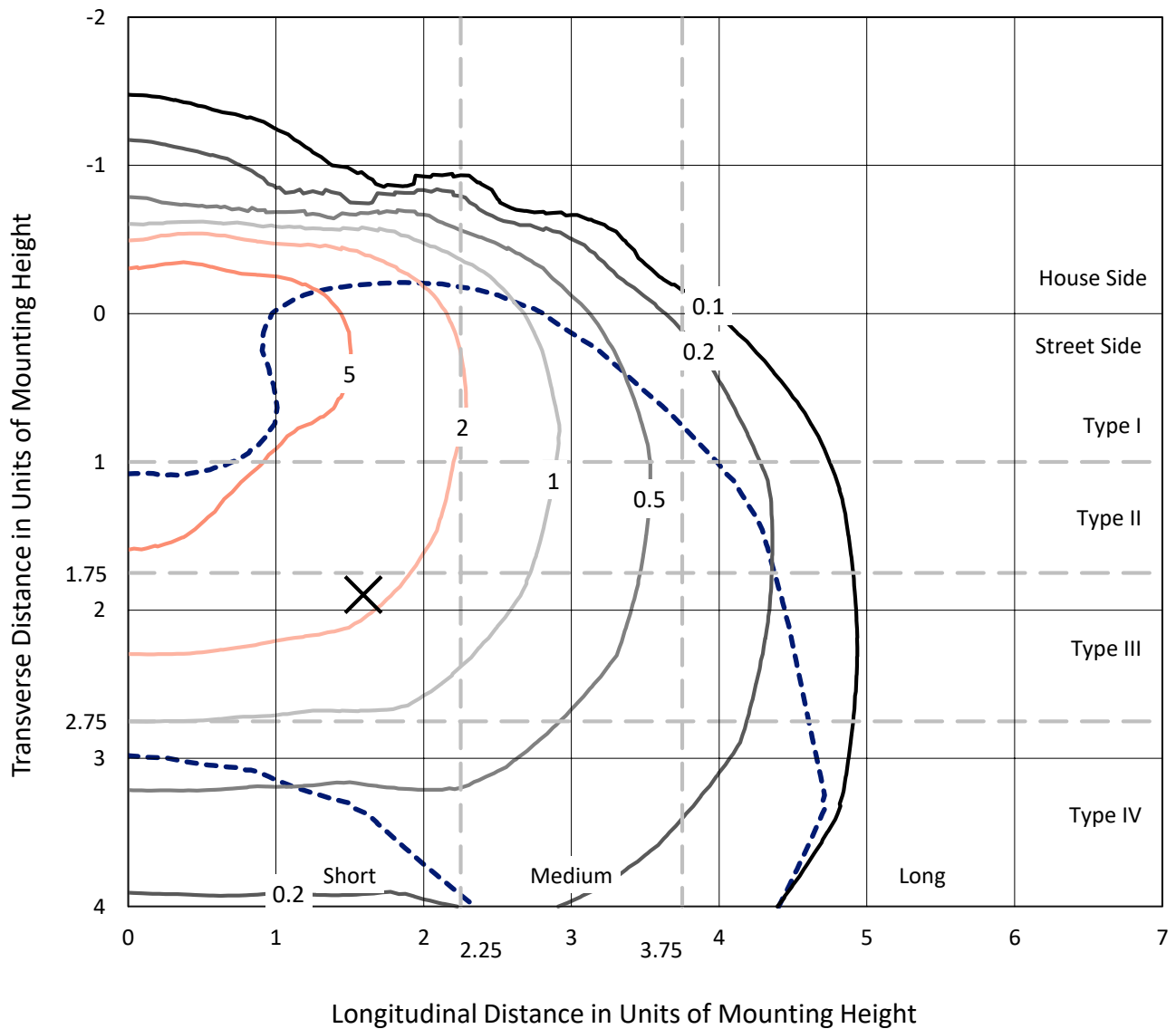
Input Watts (W): 56
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

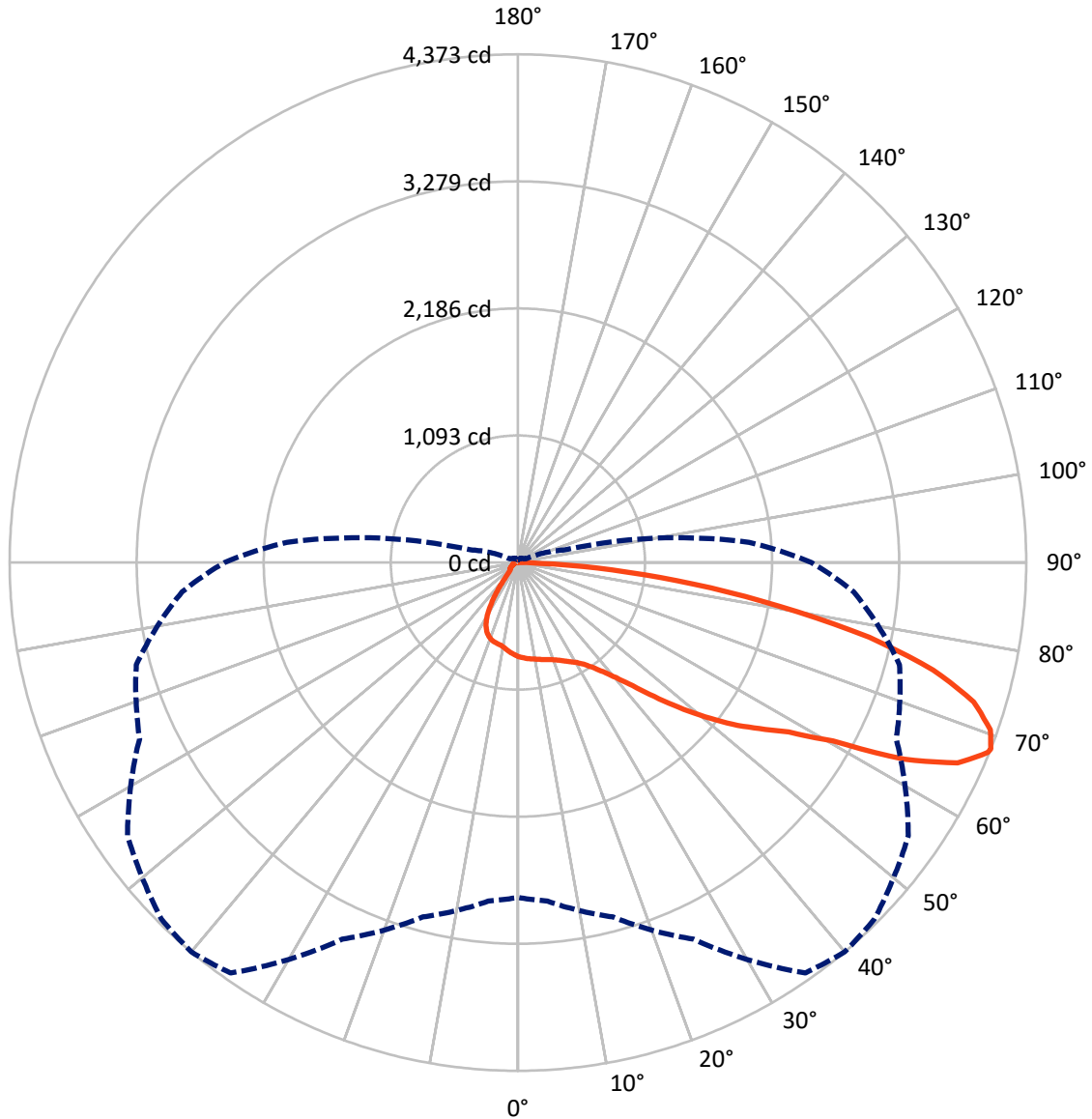
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.7 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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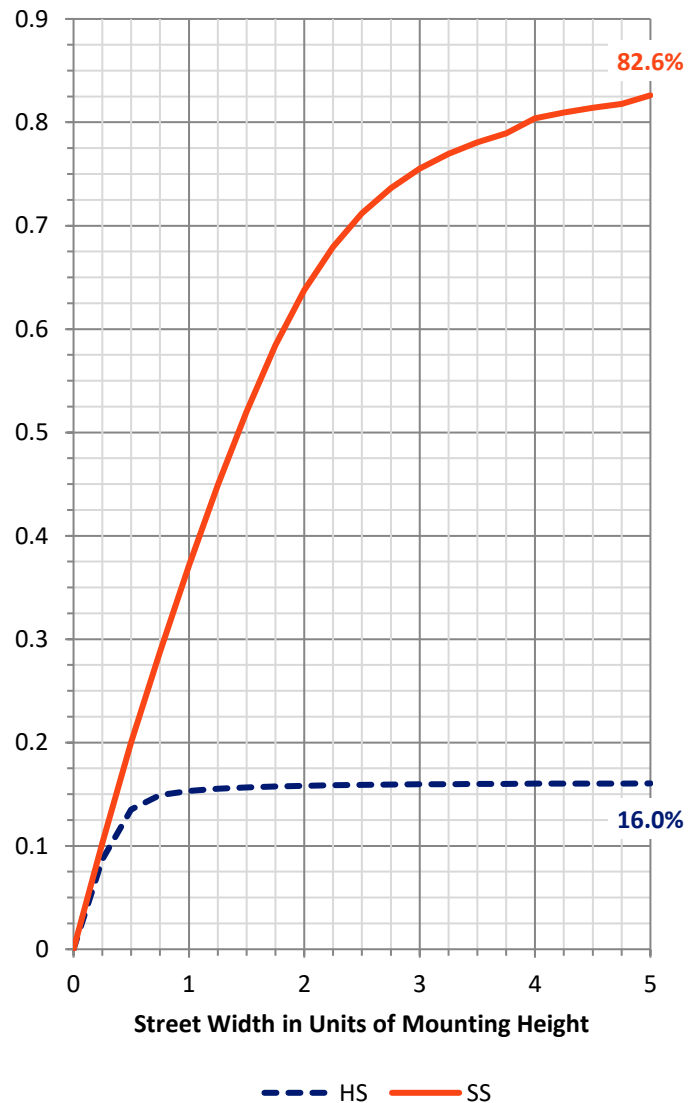
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1182.7	0.0	1182.7
	% Fixture	16.2	0.0	16.2
Street Side	Lumens	6108.3	0.0	6108.3
	% Fixture	83.8	0.0	83.8
Total	Lumens	7291.0	0.0	7291.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.9	1.1
10°-20°	230.2	3.2
20°-30°	386.4	5.3
30°-40°	572.2	7.8
40°-50°	968.0	13.3
50°-60°	1477.4	20.3
60°-70°	1934.5	26.5
70°-80°	1390.8	19.1
80°-90°	254.6	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°	7291.0	100.0
0°-180°	7291.0	100.0



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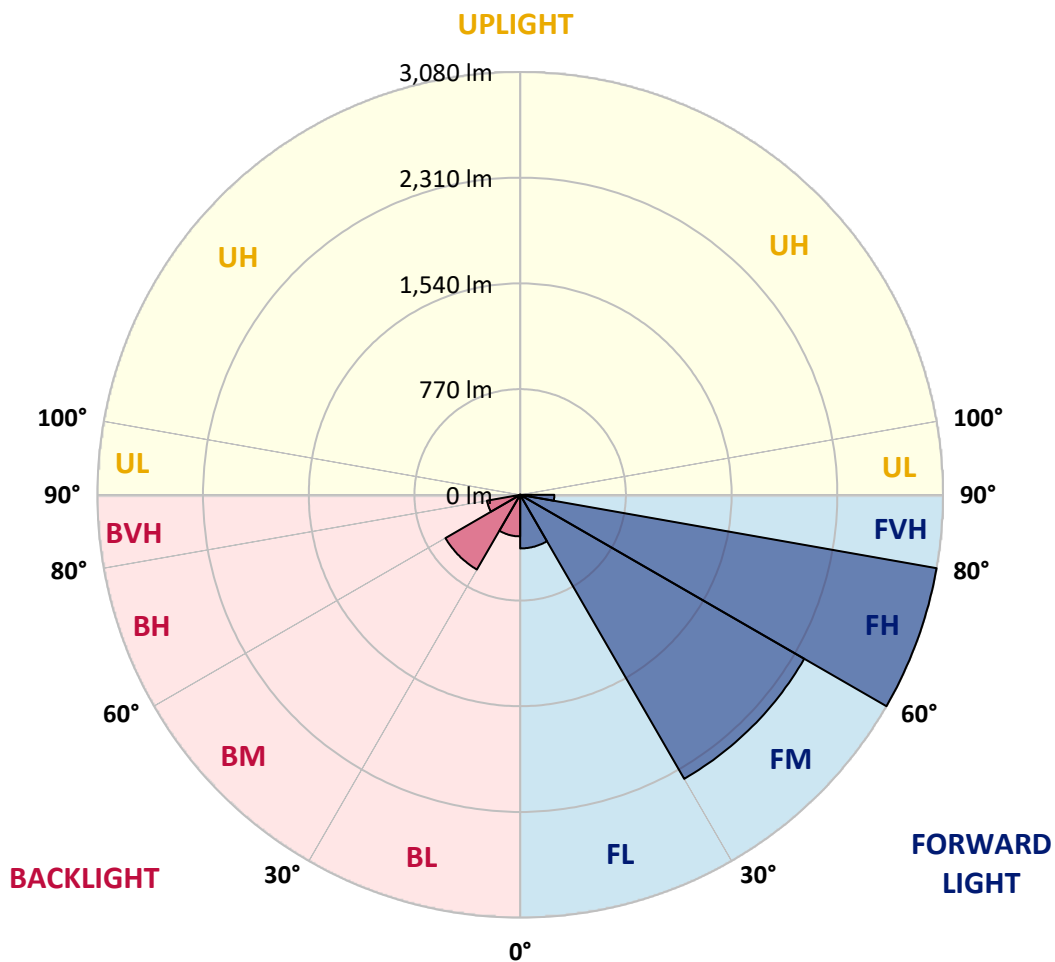
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	390.9	5.4			
FM	(30°-60°)	2389.0	32.8			
FH	(60°-80°)	3079.8	42.2			G2/5000
FVH	(80°-90°)	248.5	3.4			G3/500
BL	(0°-30°)	302.6	4.2	B1/500		
BM	(30°-60°)	628.6	8.6	B1/1000		
BH	(60°-80°)	245.4	3.4	B1/500		G1/500
BVH	(80°-90°)	6.0	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-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	810.2	810.2	810.2	810.2	810.2	810.2	810.2	810.2	810.2	810.2	810.2
2.5°	835.8	837.6	835.2	829.1	822.4	818.7	818.1	817.5	814.4	810.2	804.1
5°	844.4	845.0	842.5	837.6	831.5	830.3	828.5	829.1	827.3	823.0	816.3
7.5°	848.0	849.2	846.2	841.3	836.4	836.4	835.8	837.6	836.4	834.6	826.7
10°	846.8	848.6	846.8	845.0	843.1	845.0	843.8	848.0	848.6	848.6	839.5
12.5°	845.0	847.4	848.0	849.9	852.9	854.7	857.2	866.3	870.6	873.7	866.3
15°	846.8	848.0	852.9	856.0	862.1	866.3	871.8	887.1	894.4	903.0	899.3
17.5°	854.7	857.8	865.1	868.2	874.3	877.3	884.0	903.0	917.6	932.9	935.3
20°	871.8	873.7	885.9	887.1	890.2	893.2	900.5	921.3	943.3	965.2	971.4
22.5°	890.8	895.0	906.6	904.8	910.9	912.1	918.8	941.4	972.0	998.8	1012.3
25°	910.3	914.0	925.6	926.8	934.1	939.0	946.9	968.9	1008.0	1042.2	1066.0
27.5°	926.8	934.1	945.1	946.3	960.4	966.5	978.1	1003.1	1050.1	1092.2	1131.3
30°	957.3	959.1	969.5	973.2	992.1	997.6	1011.0	1042.8	1100.2	1152.7	1213.7
32.5°	995.2	994.6	1004.3	1010.4	1033.6	1043.4	1060.5	1097.1	1160.6	1225.9	1312.6
35°	1064.8	1058.7	1064.8	1070.9	1097.7	1108.1	1126.4	1181.4	1255.9	1367.0	1473.8
37.5°	1224.7	1215.6	1202.7	1172.2	1178.9	1192.4	1219.2	1293.7	1403.6	1610.0	1713.1
40°	1501.9	1481.8	1428.0	1347.4	1299.8	1301.0	1326.1	1423.8	1584.9	1888.4	1965.9
42.5°	1752.8	1738.8	1674.1	1563.6	1453.7	1447.6	1456.1	1570.3	1782.7	2146.6	2186.9
45°	1989.1	1995.8	1901.8	1815.1	1683.8	1643.5	1633.2	1726.6	2001.9	2376.8	2380.4
47.5°	2207.7	2218.7	2105.1	2023.3	1893.9	1859.1	1826.7	1890.8	2208.9	2572.8	2542.9
50°	2442.7	2451.3	2293.8	2226.6	2117.9	2085.6	2061.1	2089.2	2420.7	2754.7	2687.5
52.5°	2767.5	2719.9	2522.1	2411.0	2314.5	2312.1	2293.1	2310.8	2661.9	2918.3	2797.4
55°	3150.9	3026.4	2816.4	2638.7	2514.8	2521.5	2498.9	2528.2	2900.6	3058.7	2899.4
57.5°	3286.5	3283.4	3185.7	3015.4	2763.9	2748.6	2709.5	2742.5	3107.0	3190.0	2971.4
60°	3474.5	3491.0	3502.0	3399.4	3254.1	3115.5	2984.9	2981.8	3299.3	3309.7	3006.9
62.5°	3596.0	3611.3	3696.7	3683.3	3773.1	3727.3	3578.3	3248.0	3446.4	3387.2	3020.3
65°	3368.9	3406.7	3622.3	3786.5	4092.4	4156.5	4135.1	3657.1	3546.6	3409.8	2995.3
67.5°	2958.0	3007.5	3243.7	3627.8	4290.2	4361.6	4322.5	4069.2	3589.9	3400.0	2926.3
68°	2881.1	2923.8	3155.8	3574.6	4310.3	4372.6	4337.2	4099.7	3591.7	3398.8	2900.0
70°	2511.1	2545.9	2772.4	3302.3	4254.2	4312.2	4307.3	4128.4	3575.9	3361.0	2723.6
72.5°	1948.2	1983.0	2183.9	2738.8	3994.7	4100.9	4096.6	4013.6	3546.6	3168.0	2283.4
75°	1408.5	1447.0	1630.1	2104.5	3456.8	3690.6	3737.7	3817.0	3241.9	2666.2	1624.6
77.5°	1017.1	1045.2	1203.4	1589.8	2823.7	3091.1	3186.3	3266.3	2653.4	1943.3	772.9
80°	678.3	698.4	851.1	1182.0	2127.1	2284.6	2387.2	2253.5	1509.8	702.7	83.6
82.5°	417.6	430.4	550.7	829.1	1471.4	1520.8	1521.4	1202.1	486.6	67.2	45.2
85°	224.1	228.3	299.2	452.4	777.2	814.4	799.8	504.9	98.3	36.0	24.4
87.5°	36.0	39.1	94.0	169.7	239.9	185.0	118.4	37.2	9.8	5.5	3.7
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°	810.2	810.2	810.2	810.2	810.2	810.2	810.2	810.2	810.2	810.2	810.2
2.5°	807.1	805.3	800.4	798.0	791.9	793.7	793.7	788.8	791.2	801.0	799.8
5°	814.4	815.1	803.5	797.3	783.9	780.3	774.8	767.4	766.8	773.5	774.1
7.5°	820.5	823.6	807.1	794.9	776.6	763.8	752.8	740.0	736.9	741.2	741.2
10°	830.3	833.4	812.6	795.5	768.7	747.9	729.0	712.5	705.8	705.8	706.4
12.5°	856.0	854.1	830.3	804.1	772.3	739.3	709.4	687.5	671.6	671.0	668.5
15°	891.4	884.7	861.5	821.8	780.9	738.7	697.2	663.0	635.6	628.2	625.2
17.5°	929.2	920.7	892.6	844.4	794.3	738.1	683.2	635.6	589.8	572.1	566.6
20°	970.1	959.8	931.1	870.6	807.7	733.9	662.4	595.9	533.6	500.0	491.5
22.5°	1015.3	1006.8	972.0	897.5	816.9	724.7	630.1	545.8	466.4	418.2	414.5
25°	1073.9	1066.0	1014.7	921.3	817.5	707.6	587.3	481.7	382.2	325.4	313.8
27.5°	1144.1	1130.1	1048.9	935.9	807.7	677.7	531.8	396.2	283.9	236.3	235.1
30°	1220.4	1194.8	1076.4	939.6	785.7	630.1	455.5	291.2	201.5	169.1	169.1
32.5°	1310.2	1263.2	1104.4	933.5	749.7	564.1	348.6	202.1	138.6	123.3	123.3
35°	1441.5	1368.8	1140.5	918.2	699.1	473.2	247.9	133.7	109.3	107.5	107.5
37.5°	1649.0	1528.2	1189.3	892.6	629.5	360.8	161.2	103.2	104.4	104.4	103.8
40°	1870.0	1712.5	1256.5	851.7	542.1	249.1	105.6	97.7	99.5	100.7	100.1
42.5°	2069.7	1887.8	1329.7	796.7	439.0	156.9	96.5	94.0	92.8	94.0	94.6
45°	2242.5	2039.8	1403.6	725.3	324.2	102.6	94.0	88.5	84.9	85.5	86.1
47.5°	2390.2	2159.4	1453.7	650.2	214.9	91.0	91.0	81.2	77.5	77.5	77.5
50°	2519.7	2265.7	1484.2	560.5	128.2	89.7	85.5	74.5	70.8	70.2	70.8
52.5°	2613.7	2340.2	1480.5	451.2	86.1	86.7	78.1	68.4	64.1	65.3	65.9
55°	2688.2	2387.2	1448.2	330.3	80.6	81.2	72.7	61.7	58.6	59.2	59.2
57.5°	2735.2	2398.8	1382.2	214.9	78.8	72.7	65.3	54.9	51.3	51.3	51.3
60°	2750.4	2392.7	1292.5	137.4	78.1	65.3	59.2	49.5	45.8	45.8	45.8
62.5°	2737.6	2357.2	1140.5	98.9	72.7	61.1	53.7	44.0	40.3	39.1	39.1
65°	2691.8	2262.6	879.2	81.8	65.3	56.2	48.8	39.7	34.8	33.0	32.4
67.5°	2558.1	2057.5	511.6	76.9	59.2	51.3	45.2	36.0	30.5	27.5	26.9
68°	2523.3	1996.4	420.7	76.3	59.2	50.7	44.6	34.8	29.3	26.3	25.6
70°	2274.2	1610.6	120.9	72.7	58.0	48.8	40.9	31.7	26.3	22.6	22.0
72.5°	1712.5	943.9	75.7	64.7	57.4	43.3	39.7	31.7	23.2	19.5	18.3
75°	956.1	214.9	64.1	48.2	53.7	42.7	39.1	28.7	20.8	15.9	15.3
77.5°	196.6	62.3	54.9	33.6	40.9	37.2	33.0	24.4	18.9	12.2	11.6
80°	55.6	46.4	48.8	24.4	23.2	26.3	24.4	21.4	14.0	9.2	9.2
82.5°	36.0	34.2	44.0	16.5	12.2	12.2	15.9	12.8	12.2	7.3	7.3
85°	22.0	28.7	21.4	7.3	6.1	4.9	5.5	5.5	7.3	4.9	4.9
87.5°	3.1	3.1	3.1	3.1	3.1	2.4	1.8	1.8	1.8	2.4	2.4
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)