

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: P233742

Luminaire Tested: **VRDN-C018-D-UNV-T3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233742
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-33)
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-T3-HSS
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1210mA LED AND TYPE III OPTIC WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5509 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G1

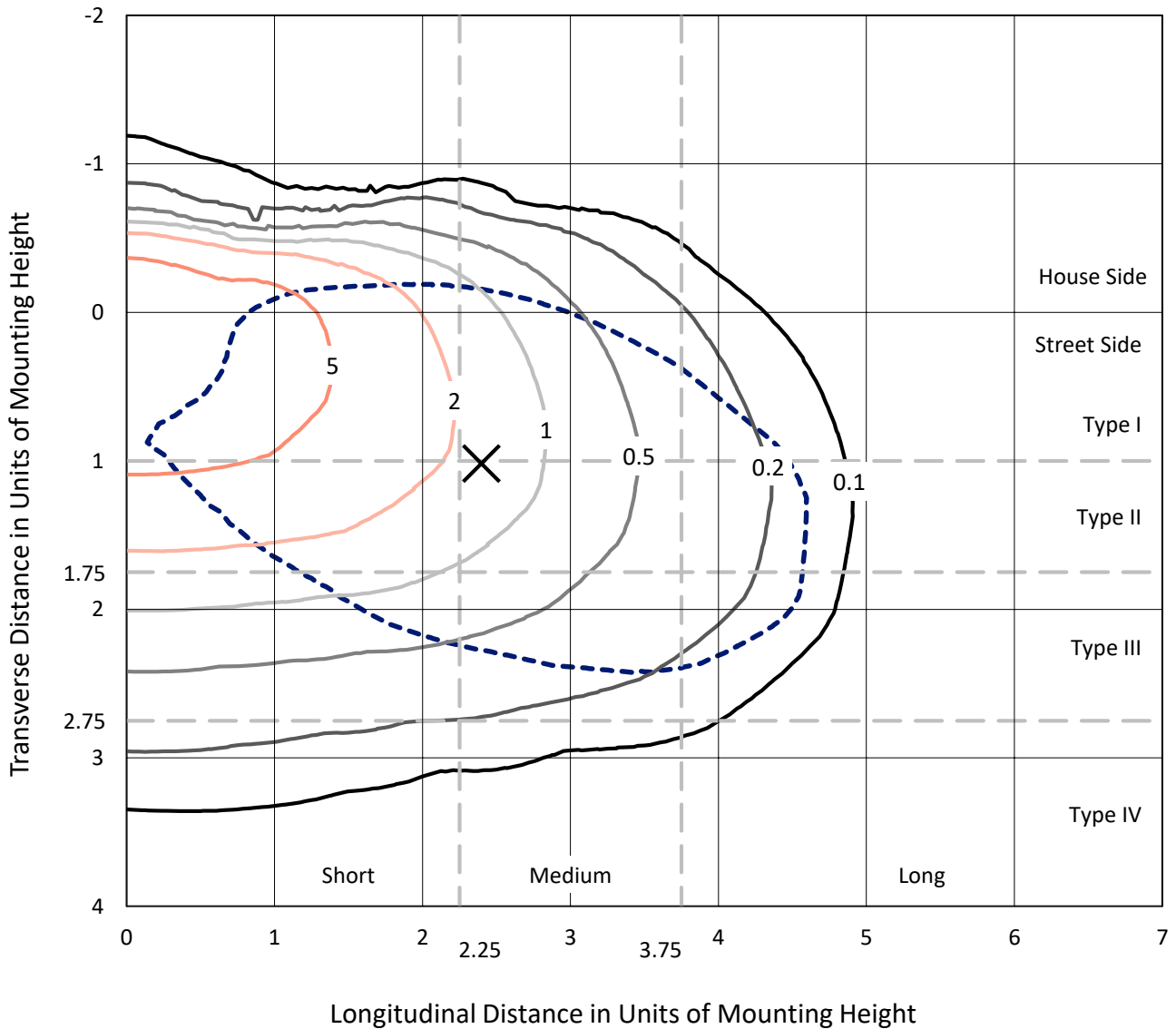
Input Watts (W): 50
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

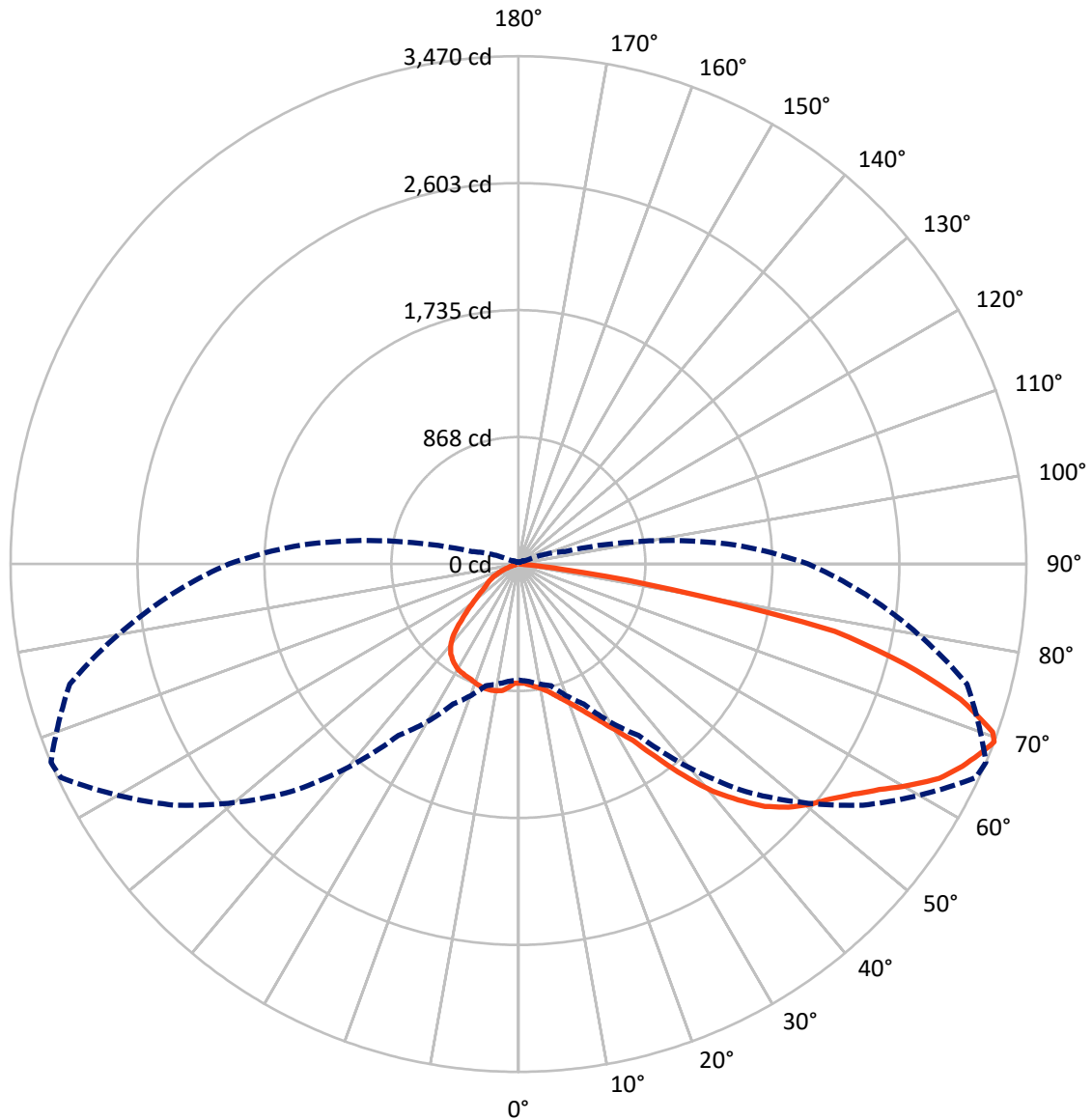


Based on 10 foot mounting height. Maximum calculated value = 10 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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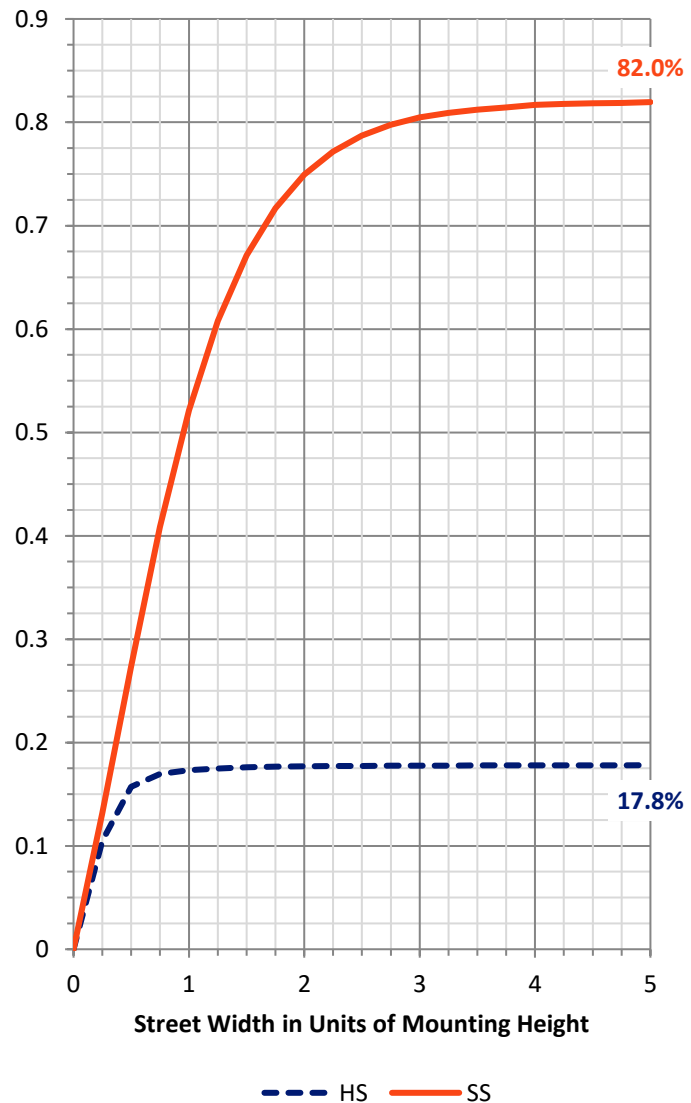
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	993.1	0.0	993.1
	% Fixture	18.0	0.0	18.0
Street Side	Lumens	4515.9	0.0	4515.9
	% Fixture	82.0	0.0	82.0
Total	Lumens	5509.0	0.0	5509.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.2	1.5
10°-20°	258.6	4.7
20°-30°	441.4	8.0
30°-40°	667.4	12.1
40°-50°	942.9	17.1
50°-60°	1139.5	20.7
60°-70°	1202.4	21.8
70°-80°	723.8	13.1
80°-90°	50.6	0.9
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°	5509.0	100.0
0°-180°	5509.0	100.0

Coefficient of Utilization



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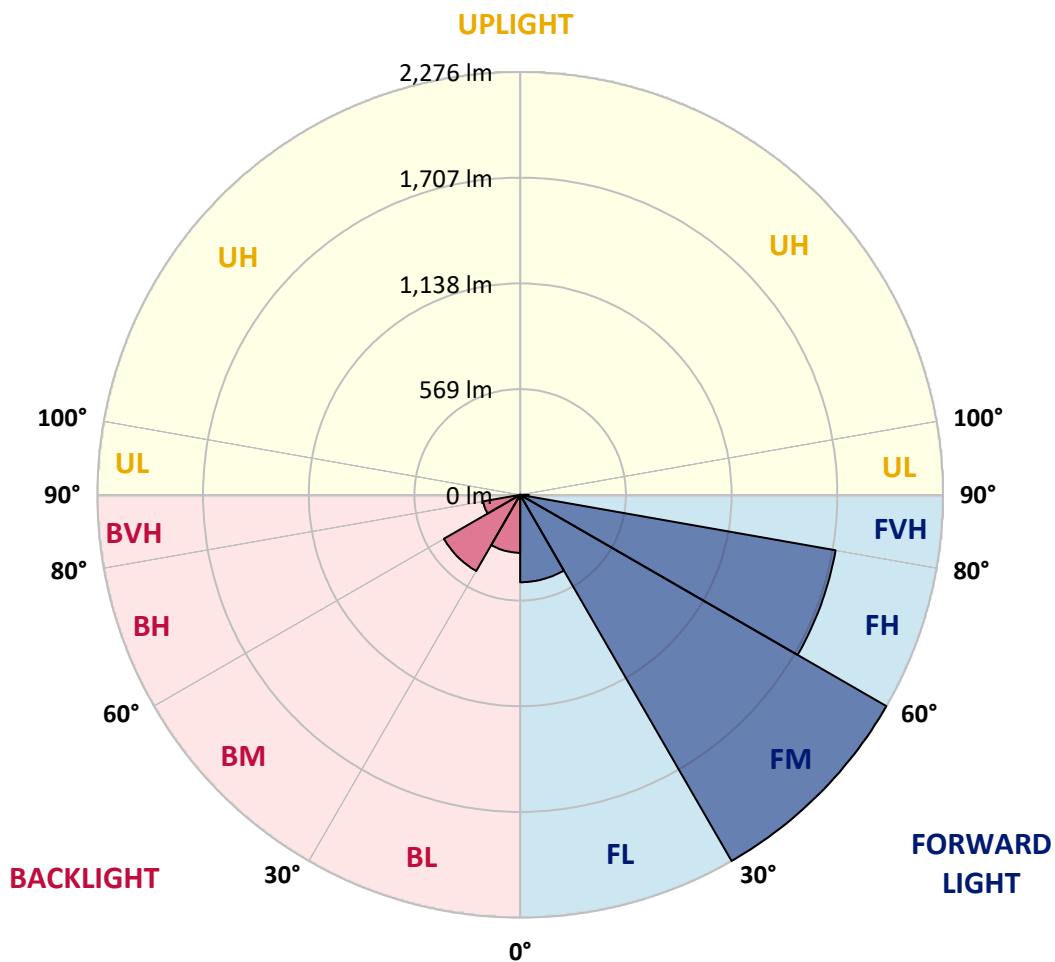
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	470.4	8.5			
FM	(30°-60°)	2276.0	41.3			
FH	(60°-80°)	1723.8	31.3			G1/1800
FVH	(80°-90°)	45.7	0.8			G1/100
BL	(0°-30°)	311.9	5.7	B1/500		
BM	(30°-60°)	473.8	8.6	B1/1000		
BH	(60°-80°)	202.5	3.7	B1/500		G1/500
BVH	(80°-90°)	4.9	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-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	814.7	814.7	814.7	814.7	814.7	814.7	814.7	814.7	814.7	814.7	814.7
2.5°	835.8	834.5	834.5	827.0	820.0	818.2	817.8	815.6	816.0	812.9	809.9
5°	859.9	859.9	859.0	849.4	841.9	837.1	834.0	830.1	830.5	828.3	825.7
7.5°	896.3	896.8	895.0	882.3	874.8	863.0	856.0	848.5	848.1	845.4	846.3
10°	941.1	942.4	939.8	923.6	910.8	894.6	879.7	866.5	865.6	862.5	865.2
12.5°	991.6	993.4	986.8	970.1	955.6	930.1	912.1	894.6	892.0	891.5	893.3
15°	1049.5	1050.4	1048.2	1023.6	1006.1	982.8	953.4	931.0	928.4	928.8	926.6
17.5°	1114.1	1116.3	1111.4	1089.5	1066.2	1034.2	999.1	971.4	970.1	968.8	959.1
20°	1182.5	1184.7	1181.7	1161.0	1133.4	1093.0	1050.0	1018.4	1017.9	1014.9	992.5
22.5°	1259.8	1262.9	1261.1	1236.1	1206.7	1162.8	1109.2	1076.3	1075.4	1065.8	1032.0
25°	1343.6	1342.8	1344.5	1317.7	1290.1	1244.0	1177.7	1143.5	1143.5	1131.6	1081.6
27.5°	1424.8	1424.4	1427.5	1408.6	1379.6	1336.2	1256.3	1221.6	1224.7	1207.6	1141.3
30°	1503.9	1503.9	1511.3	1499.0	1477.5	1431.9	1353.7	1317.3	1321.3	1303.3	1216.8
32.5°	1577.6	1581.1	1593.8	1586.4	1570.1	1528.9	1462.2	1428.8	1438.0	1445.5	1357.2
35°	1632.0	1635.5	1665.0	1667.6	1663.6	1636.0	1586.4	1607.9	1618.9	1677.7	1579.4
37.5°	1679.9	1684.3	1719.4	1741.3	1754.1	1736.9	1740.0	1812.0	1832.6	1902.0	1769.0
40°	1715.0	1724.6	1759.3	1789.6	1834.4	1854.6	1904.6	2006.9	2040.3	2067.9	1899.4
42.5°	1690.8	1697.4	1758.4	1839.7	1905.1	1976.2	2057.4	2179.0	2204.0	2195.2	2014.4
45°	1655.3	1663.2	1727.3	1852.8	1961.2	2103.0	2202.2	2333.9	2362.4	2313.7	2113.6
47.5°	1615.3	1626.3	1695.7	1835.3	2008.2	2219.8	2333.5	2466.9	2483.6	2419.5	2197.0
50°	1575.0	1587.3	1665.8	1820.8	2044.6	2317.2	2429.2	2575.3	2580.2	2507.3	2272.0
52.5°	1520.5	1533.3	1619.3	1790.5	2070.1	2381.3	2513.0	2664.4	2667.5	2602.1	2343.1
55°	1451.6	1467.9	1558.7	1745.7	2076.3	2418.6	2566.1	2757.1	2777.7	2704.8	2401.5
57.5°	1370.4	1385.3	1485.4	1681.2	2045.5	2431.4	2640.3	2879.5	2908.1	2808.9	2449.8
60°	1276.9	1294.0	1394.6	1597.8	1983.6	2466.9	2763.2	3052.5	3069.6	2917.7	2492.4
62.5°	1181.2	1193.5	1284.8	1480.6	1887.1	2488.4	2872.1	3214.9	3226.3	3022.6	2517.8
65°	1045.1	1060.5	1149.6	1346.3	1747.9	2447.2	2913.8	3326.0	3333.0	3110.4	2505.5
67.5°	897.2	909.5	974.5	1184.3	1565.3	2316.4	2896.7	3400.1	3422.5	3178.9	2449.8
69°	792.3	804.6	860.8	1054.8	1429.7	2200.5	2872.5	3450.6	3470.4	3174.1	2378.7
70°	710.7	723.0	776.1	958.2	1323.4	2102.6	2834.3	3425.2	3437.9	3120.1	2309.3
72.5°	508.3	520.6	564.1	673.8	1002.6	1728.2	2597.7	3142.5	3159.6	2860.7	2064.0
75°	266.0	295.4	373.5	435.4	593.9	1216.8	2159.7	2702.6	2727.7	2510.4	1697.4
77.5°	34.2	36.0	105.3	176.9	245.4	513.1	1534.1	2170.2	2209.7	2009.1	1173.8
80°	27.7	28.1	36.4	88.2	122.0	208.1	544.3	1015.7	1063.6	892.8	431.5
82.5°	19.3	20.2	28.5	46.5	39.9	75.9	189.2	287.1	295.9	255.9	172.1
85°	11.0	11.0	13.6	18.0	12.7	28.5	39.1	41.7	37.3	36.9	27.7
87.5°	3.1	3.5	4.0	3.1	1.3	1.3	1.8	1.8	1.8	1.3	1.3
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°	814.7	814.7	814.7	814.7	814.7	814.7	814.7	814.7	814.7	814.7	814.7
2.5°	814.7	813.8	814.3	816.0	818.6	828.3	834.9	835.8	838.8	850.3	848.9
5°	828.7	834.0	837.1	846.3	852.4	865.6	873.5	874.4	878.8	890.6	891.1
7.5°	848.5	857.3	861.7	872.2	874.4	880.5	882.7	880.5	881.0	891.5	892.4
10°	865.6	876.6	876.6	879.2	875.3	875.7	868.7	862.1	858.6	867.8	870.0
12.5°	892.0	895.0	888.0	880.1	868.3	857.7	845.9	835.3	827.0	832.3	829.2
15°	919.2	914.3	897.2	876.6	855.5	837.5	812.9	797.6	783.1	786.2	783.5
17.5°	946.4	930.6	903.8	869.6	838.8	804.6	770.4	746.2	719.9	717.7	713.7
20°	972.7	949.9	905.6	855.1	812.1	763.8	710.7	669.4	630.3	620.2	613.7
22.5°	1004.3	971.4	907.8	841.0	783.1	717.3	636.9	572.8	530.7	516.6	510.1
25°	1044.7	1001.3	913.9	830.5	753.7	659.7	549.6	476.3	430.6	406.5	404.3
27.5°	1092.6	1037.2	924.4	816.9	712.0	582.9	459.1	382.8	334.0	309.5	301.6
30°	1155.3	1082.0	934.1	806.4	653.2	499.1	364.3	279.2	221.2	205.4	197.1
32.5°	1274.3	1154.9	946.4	781.8	583.8	407.3	258.1	172.1	132.6	122.0	122.0
35°	1467.9	1315.1	977.1	748.0	500.4	296.7	155.0	96.6	79.0	72.9	69.8
37.5°	1642.6	1476.6	1053.9	695.7	399.0	175.6	88.7	59.7	54.0	54.9	54.9
40°	1765.9	1587.3	1138.6	625.1	270.8	93.9	56.2	47.8	48.7	49.2	49.2
42.5°	1871.7	1681.6	1185.2	541.2	147.5	61.0	48.3	43.5	44.8	44.3	43.9
45°	1960.4	1758.4	1200.5	425.8	71.5	54.0	43.9	39.9	39.9	39.5	39.5
47.5°	2036.3	1826.5	1172.0	316.5	57.9	49.6	41.7	36.9	36.4	38.6	38.6
50°	2105.7	1879.2	1100.9	239.7	56.2	45.7	39.5	34.2	34.7	37.8	37.8
52.5°	2163.6	1910.3	995.5	179.5	52.2	42.1	36.4	32.0	32.0	35.1	35.1
55°	2206.6	1910.3	915.2	134.3	50.0	38.6	33.8	30.7	29.0	29.8	30.3
57.5°	2228.1	1874.3	850.7	108.9	47.4	35.1	31.2	26.8	23.7	24.6	24.1
60°	2222.4	1853.7	776.5	97.0	44.3	32.5	27.7	22.8	19.8	18.9	18.9
62.5°	2211.9	1830.4	683.9	84.3	41.3	30.3	22.8	18.4	16.7	15.8	16.2
65°	2171.9	1754.9	566.7	70.2	38.2	29.4	19.3	16.2	14.5	13.6	13.6
67.5°	2075.4	1618.9	428.4	59.3	35.6	23.7	16.7	14.0	12.3	11.4	11.4
69°	1979.7	1488.9	328.8	54.0	33.8	21.5	15.4	12.7	11.4	10.1	10.1
70°	1897.2	1388.4	257.7	50.5	32.5	20.6	14.9	12.3	11.0	9.7	9.7
72.5°	1615.3	1101.3	130.8	43.9	27.2	18.0	13.2	11.0	9.2	7.9	7.9
75°	1253.2	759.0	86.5	34.7	21.1	16.2	11.9	9.7	7.9	6.6	6.1
77.5°	754.1	296.7	61.9	22.4	13.6	12.7	9.7	7.9	6.6	5.3	5.3
80°	208.1	127.3	41.7	14.9	7.9	8.3	7.0	5.7	4.8	4.0	4.0
82.5°	125.1	82.5	27.7	9.7	5.3	5.3	4.0	4.0	3.1	3.1	3.1
85°	21.5	16.7	6.6	4.0	3.1	3.1	2.2	1.3	1.3	1.3	1.3
87.5°	1.3	1.3	1.3	1.8	1.8	1.3	0.9	0.4	0.0	0.0	0.0
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)