

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: STREETWORKS

Report Number: P157395

Luminaire Tested: **VST-F09-LED-E-U-5MQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157395
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33708)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F09-LED-E-U-5MQ
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (63) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23766.7 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G3

Input Watts (W): 234.8
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: 28.75 FT

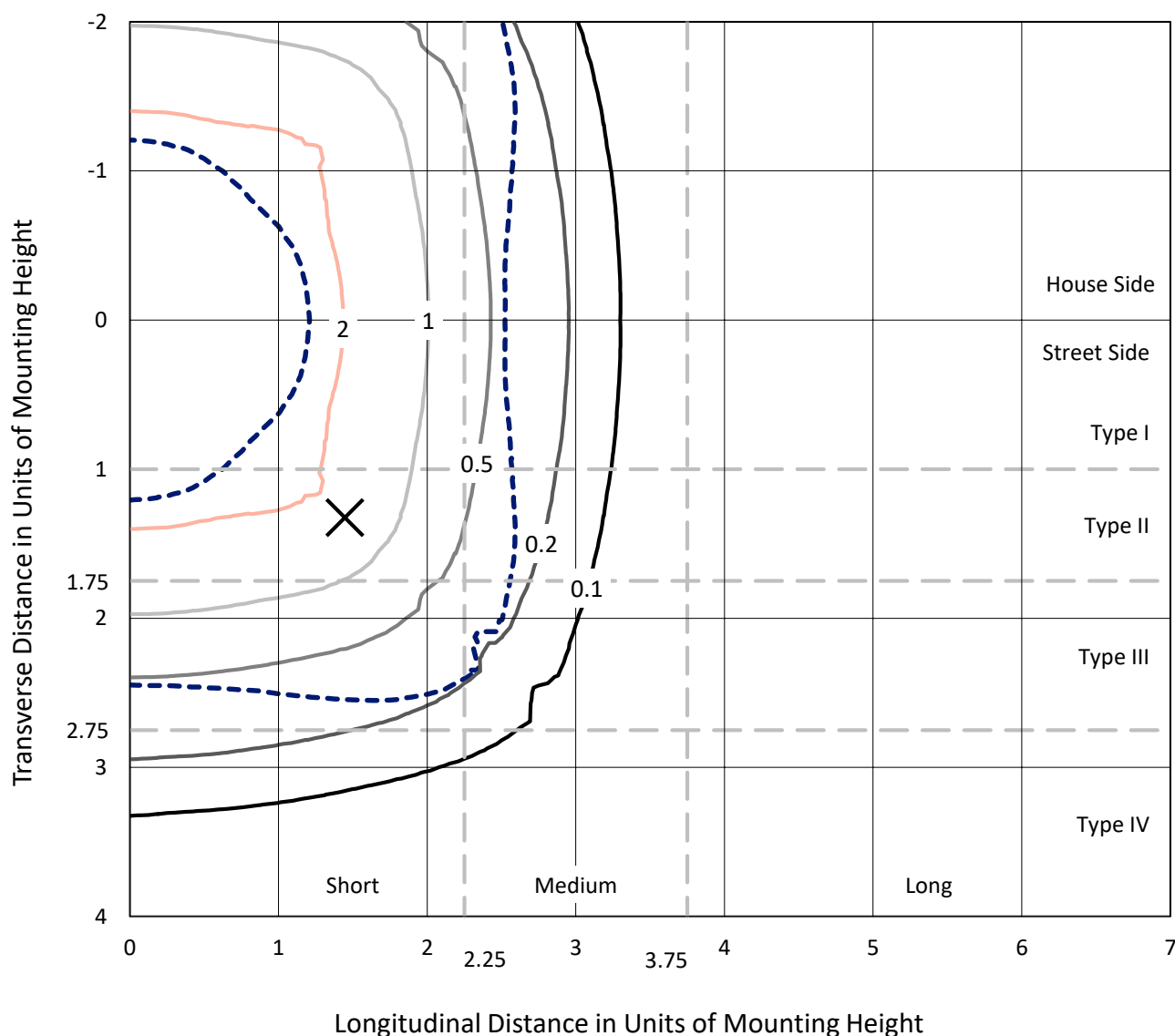


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

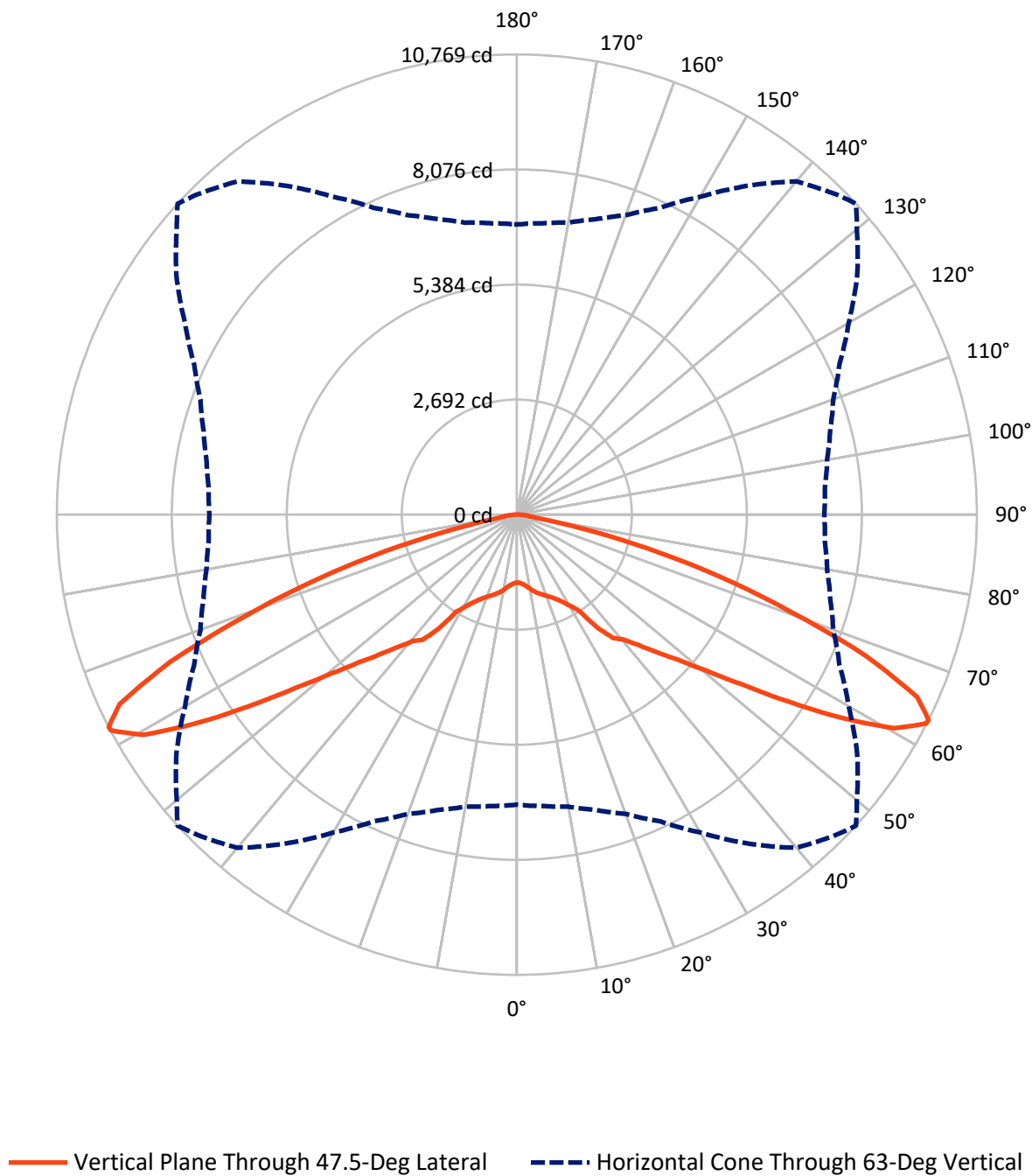


Based on 25 foot mounting height. Maximum calculated value = 2.8 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11883.3	0.0	11883.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	11883.3	0.0	11883.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	23766.7	0.0	23766.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.3	0.7
10°-20°	541.6	2.3
20°-30°	1036.0	4.4
30°-40°	1981.7	8.3
40°-50°	3429.0	14.4
50°-60°	6158.3	25.9
60°-70°	7488.5	31.5
70°-80°	2704.5	11.4
80°-90°	267.9	1.1
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°	23766.7	100.0
0°-180°	23766.7	100.0

Coefficient of Utilization



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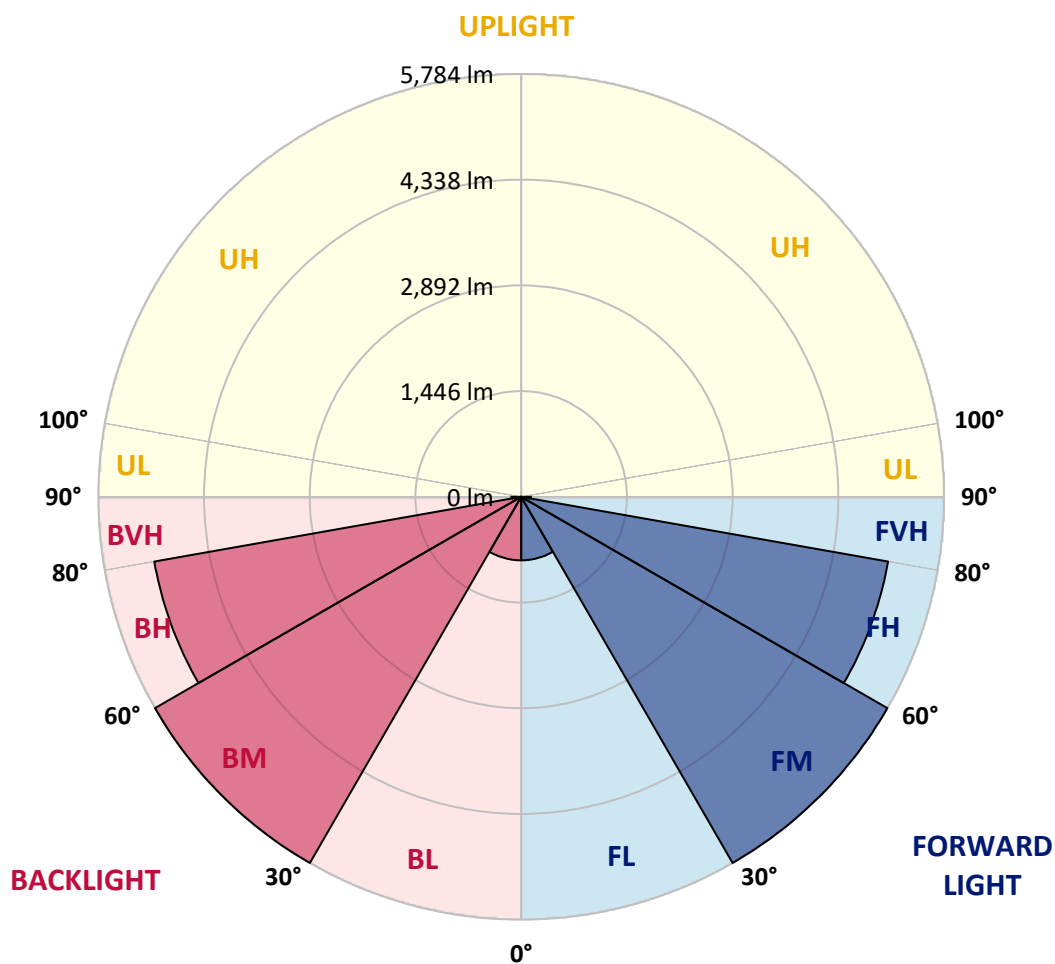
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	868.4	3.7			
FM	(30°-60°)	5784.5	24.3			
FH	(60°-80°)	5096.5	21.4			G3/7500
FVH	(80°-90°)	133.9	0.6			G2/225
BL	(0°-30°)	868.4	3.7	B2/1000		
BM	(30°-60°)	5784.5	24.3	B4/8500		
BH	(60°-80°)	5096.5	21.4	B5		G3/7500
BVH	(80°-90°)	133.9	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	1587.0	1587.0	1587.0	1587.0	1587.0	1587.0	1587.0	1587.0	1587.0	1587.0	1587.0
2.5°	1597.4	1594.4	1595.9	1597.4	1595.9	1594.4	1594.4	1594.4	1597.4	1594.4	1601.8
5°	1628.6	1625.6	1627.1	1627.1	1627.1	1624.1	1624.1	1624.1	1622.7	1624.1	1640.5
7.5°	1688.0	1683.6	1682.1	1685.1	1682.1	1680.6	1679.1	1679.1	1676.1	1676.1	1696.9
10°	1759.4	1753.4	1756.4	1757.9	1753.4	1750.4	1750.4	1750.4	1746.0	1744.5	1771.2
12.5°	1838.1	1835.1	1835.1	1832.2	1830.7	1827.7	1826.2	1827.7	1821.8	1821.8	1848.5
15°	1913.9	1908.0	1909.4	1905.0	1902.0	1899.0	1897.6	1896.1	1893.1	1893.1	1909.4
17.5°	1983.7	1979.3	1977.8	1973.3	1968.9	1964.4	1961.4	1960.0	1955.5	1955.5	1970.4
20°	2056.5	2052.1	2049.1	2041.7	2034.3	2029.8	2023.9	2020.9	2014.9	2016.4	2032.8
22.5°	2139.8	2132.3	2126.4	2120.4	2107.1	2098.2	2090.7	2084.8	2081.8	2081.8	2104.1
25°	2251.2	2246.7	2237.8	2218.5	2202.2	2188.8	2176.9	2171.0	2165.0	2162.0	2196.2
27.5°	2387.9	2383.5	2371.6	2352.3	2330.0	2307.7	2294.3	2283.9	2276.5	2272.0	2321.0
30°	2569.2	2561.8	2551.4	2520.2	2500.8	2466.7	2451.8	2436.9	2420.6	2425.1	2483.0
32.5°	2924.3	2913.9	2881.2	2847.1	2787.6	2741.6	2694.0	2658.4	2624.2	2619.7	2682.1
35°	3246.8	3242.3	3236.4	3212.6	3190.3	3162.1	3139.8	3102.7	3071.4	3064.0	3239.4
37.5°	3420.6	3431.0	3422.1	3419.2	3419.2	3432.5	3474.1	3515.7	3545.5	3563.3	3661.4
40°	3686.6	3686.6	3676.2	3670.3	3658.4	3676.2	3694.1	3725.3	3738.6	3740.1	3839.7
42.5°	3988.3	3989.8	3979.4	3961.5	3955.6	3971.9	3995.7	4025.4	4043.3	4047.7	4163.6
45°	4324.1	4319.6	4310.7	4304.8	4309.2	4324.1	4352.3	4410.3	4437.0	4457.8	4584.1
47.5°	4688.2	4717.9	4692.6	4697.1	4697.1	4743.1	4807.0	4854.6	4897.7	4937.8	5071.5
50°	5165.1	5169.6	5174.1	5187.4	5196.3	5257.3	5337.5	5394.0	5456.4	5508.4	5726.8
52.5°	5802.6	5793.7	5816.0	5830.8	5881.4	5914.1	6047.8	6119.1	6205.3	6272.2	6591.7
55°	6564.9	6560.4	6593.1	6605.0	6671.9	6752.1	6900.7	7056.8	7203.9	7285.6	7722.5
57.5°	7111.7	7123.6	7180.1	7258.8	7389.6	7560.5	7781.9	8126.6	8406.0	8495.1	8976.6
60°	7232.1	7270.7	7355.4	7512.9	7737.3	8055.3	8490.7	9018.2	9529.4	9700.2	10152.0
62.5°	6894.8	6939.4	7064.2	7252.9	7545.6	8016.7	8645.2	9389.7	10149.0	10529.4	10756.8
63°	6787.8	6842.8	6936.4	7154.8	7452.0	7917.1	8585.8	9388.2	10175.8	10590.3	10768.6
65°	6285.5	6295.9	6435.6	6654.1	6988.4	7471.3	8145.9	9073.2	9946.9	10425.4	10302.1
67.5°	5408.8	5451.9	5569.3	5789.2	6114.7	6616.9	7349.5	8206.9	8975.1	9357.0	8805.7
70°	4370.2	4367.2	4512.8	4689.6	4976.4	5417.8	6059.7	6833.9	7443.1	7721.0	6798.2
72.5°	3122.0	3044.7	3151.7	3347.8	3582.6	3934.8	4443.0	5044.8	5590.1	5830.8	4970.5
75°	1422.0	1401.2	1496.3	1691.0	1928.8	2242.3	2659.8	3179.9	3703.0	3985.3	3166.5
77.5°	478.5	484.4	521.6	591.4	719.2	876.7	1136.7	1469.6	1893.1	2172.5	1485.9
80°	321.0	329.9	341.8	352.2	367.0	390.8	447.3	533.5	664.2	803.9	469.6
82.5°	263.0	273.4	300.2	312.0	321.0	328.4	332.9	338.8	338.8	341.8	297.2
85°	188.7	206.5	242.2	264.5	273.4	279.4	286.8	295.7	282.3	270.4	230.3
87.5°	65.4	89.2	130.8	144.1	154.5	156.0	166.4	184.3	175.3	142.7	69.8
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°
0°	1587.0	1587.0	1587.0	1587.0	1587.0	1587.0	1587.0	1587.0	1587.0
2.5°	1594.4	1592.9	1594.4	1595.9	1595.9	1595.9	1597.4	1598.9	1598.9
5°	1624.1	1625.6	1624.1	1625.6	1625.6	1627.1	1627.1	1630.1	1630.1
7.5°	1674.7	1677.6	1676.1	1679.1	1679.1	1682.1	1680.6	1685.1	1685.1
10°	1743.0	1746.0	1749.0	1750.4	1749.0	1751.9	1754.9	1756.4	1754.9
12.5°	1820.3	1821.8	1820.3	1823.3	1823.3	1826.2	1826.2	1830.7	1830.7
15°	1891.6	1890.1	1888.6	1893.1	1896.1	1897.6	1900.5	1905.0	1900.5
17.5°	1955.5	1957.0	1954.0	1958.5	1964.4	1968.9	1971.8	1977.8	1976.3
20°	2019.4	2016.4	2019.4	2026.8	2032.8	2038.7	2044.7	2053.6	2052.1
22.5°	2081.8	2084.8	2092.2	2098.2	2108.6	2117.5	2124.9	2136.8	2141.2
25°	2169.5	2169.5	2181.4	2188.8	2203.7	2215.5	2231.9	2245.3	2252.7
27.5°	2280.9	2280.9	2294.3	2310.6	2332.9	2353.7	2371.6	2389.4	2386.4
30°	2432.5	2439.9	2451.8	2472.6	2502.3	2527.6	2551.4	2569.2	2570.7
32.5°	2631.6	2640.5	2676.2	2729.7	2792.1	2839.6	2875.3	2918.4	2924.3
35°	3083.3	3105.6	3151.7	3194.8	3220.0	3248.3	3266.1	3267.6	3270.6
37.5°	3558.8	3520.2	3484.5	3451.8	3437.0	3434.0	3434.0	3440.0	3442.9
40°	3732.7	3713.4	3697.0	3676.2	3682.2	3680.7	3691.1	3700.0	3705.9
42.5°	4029.9	4015.0	4000.2	3973.4	3988.3	3983.8	3998.7	4012.1	4019.5
45°	4444.5	4398.4	4365.7	4322.6	4337.5	4328.6	4328.6	4344.9	4347.9
47.5°	4902.1	4848.6	4781.8	4728.3	4710.4	4694.1	4709.0	4709.0	4692.6
50°	5450.4	5386.6	5307.8	5221.6	5191.9	5175.5	5181.5	5188.9	5142.9
52.5°	6194.9	6123.6	6012.1	5881.4	5853.1	5839.8	5836.8	5826.4	5814.5
55°	7203.9	7070.1	6933.4	6761.0	6709.0	6694.2	6695.7	6683.8	6712.0
57.5°	8394.1	8198.0	7882.9	7673.4	7548.6	7501.0	7458.0	7440.1	7441.6
60°	9572.5	9172.7	8701.7	8336.2	8074.6	7908.2	7777.4	7704.6	7683.8
62.5°	10331.8	9703.2	8995.9	8403.0	7973.6	7698.7	7492.1	7361.4	7319.8
63°	10391.2	9725.5	8969.2	8333.2	7881.5	7593.2	7376.2	7241.0	7196.4
65°	10261.9	9501.1	8620.0	7862.1	7367.3	7047.8	6813.1	6685.3	6651.1
67.5°	9257.4	8624.4	7726.9	6943.8	6444.5	6120.6	5851.7	5729.8	5691.2
70°	7530.8	7096.9	6361.3	5692.7	5227.6	4915.5	4643.6	4542.5	4541.0
72.5°	5582.7	5019.5	4581.2	4090.8	3685.1	3437.0	3200.7	3087.8	3031.3
75°	3692.6	3089.3	2598.9	2185.8	1781.6	1558.8	1292.8	1178.4	1111.5
77.5°	1860.4	1379.0	988.2	685.0	532.0	436.9	399.7	380.4	378.9
80°	619.6	465.1	399.7	374.5	367.0	368.5	364.1	356.6	347.7
82.5°	343.3	361.1	364.1	353.7	353.7	347.7	341.8	313.5	298.7
85°	294.2	323.9	326.9	321.0	319.5	310.6	300.2	261.5	239.2
87.5°	184.3	212.5	208.0	185.7	205.1	191.7	181.3	117.4	86.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)