

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: P157393

Luminaire Tested: **VST-F09-LED-E-U-5MQ-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157393
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-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (63) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20058.8 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

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



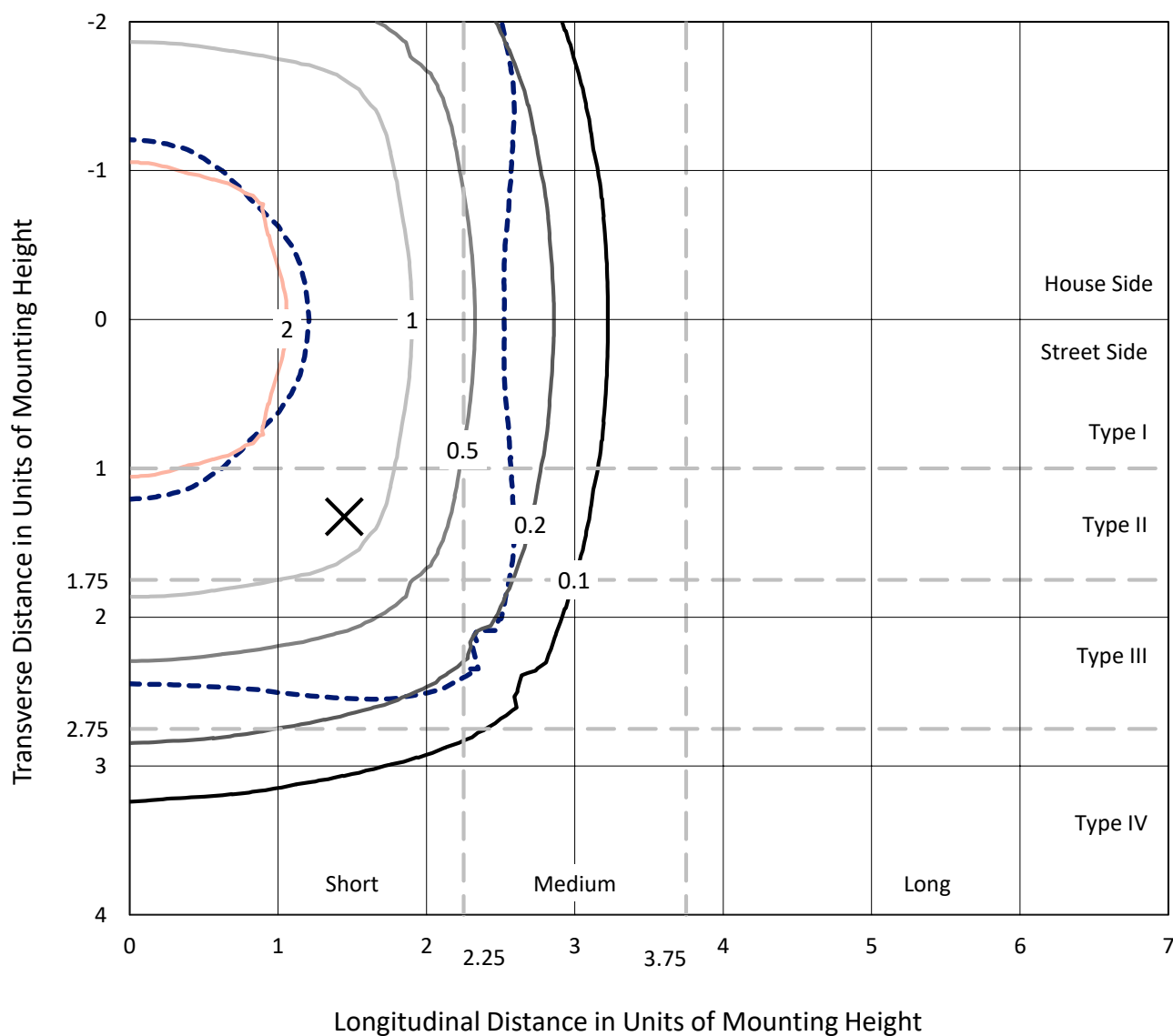
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

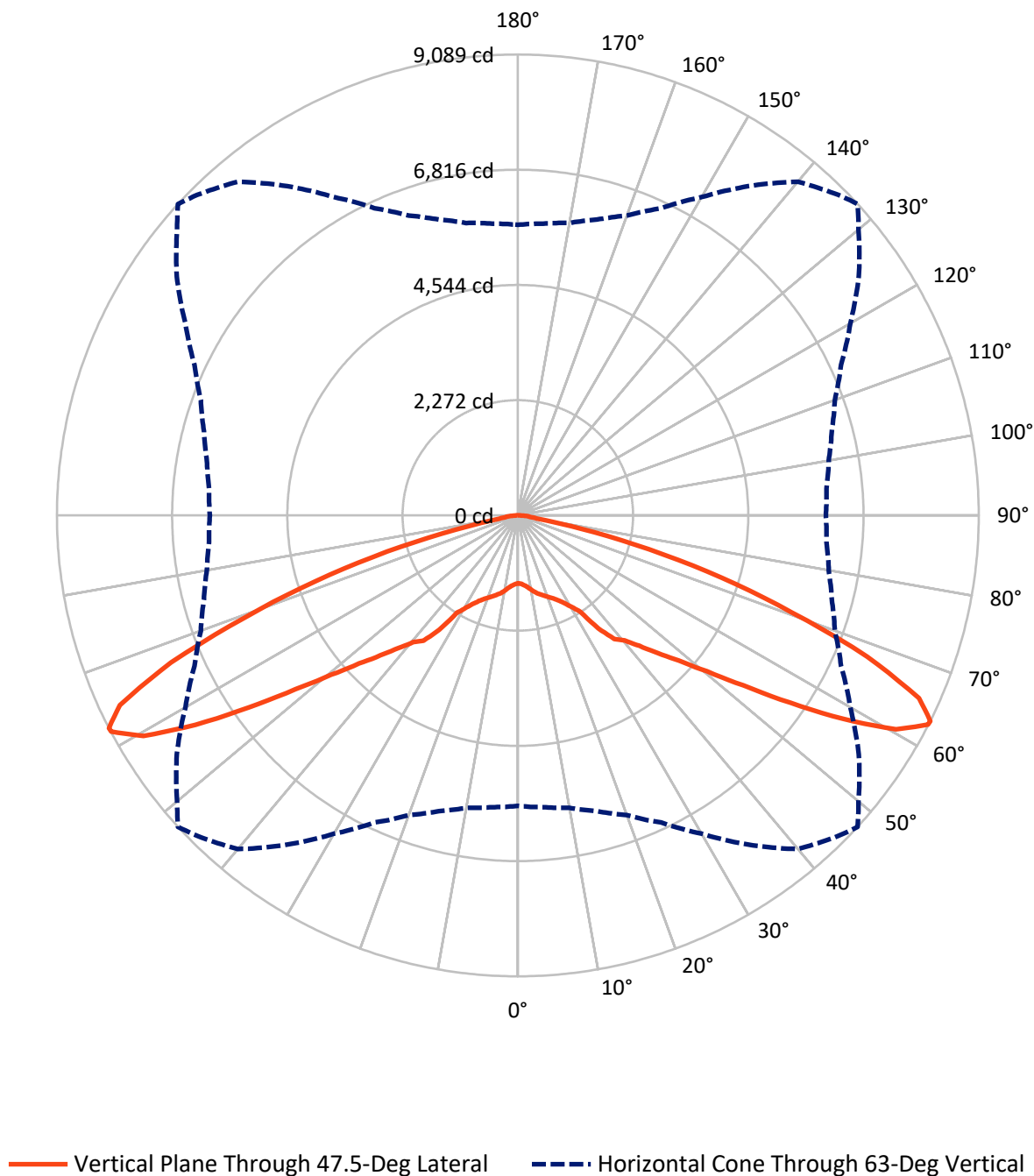


Based on 25 foot mounting height. Maximum calculated value = 2.4 fc
Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10029.4	0.0	10029.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	10029.4	0.0	10029.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	20058.8	0.0	20058.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.5	0.7
10°-20°	457.1	2.3
20°-30°	874.3	4.4
30°-40°	1672.5	8.3
40°-50°	2894.0	14.4
50°-60°	5197.5	25.9
60°-70°	6320.2	31.5
70°-80°	2282.6	11.4
80°-90°	226.1	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°	20058.8	100.0
0°-180°	20058.8	100.0

Coefficient of Utilization



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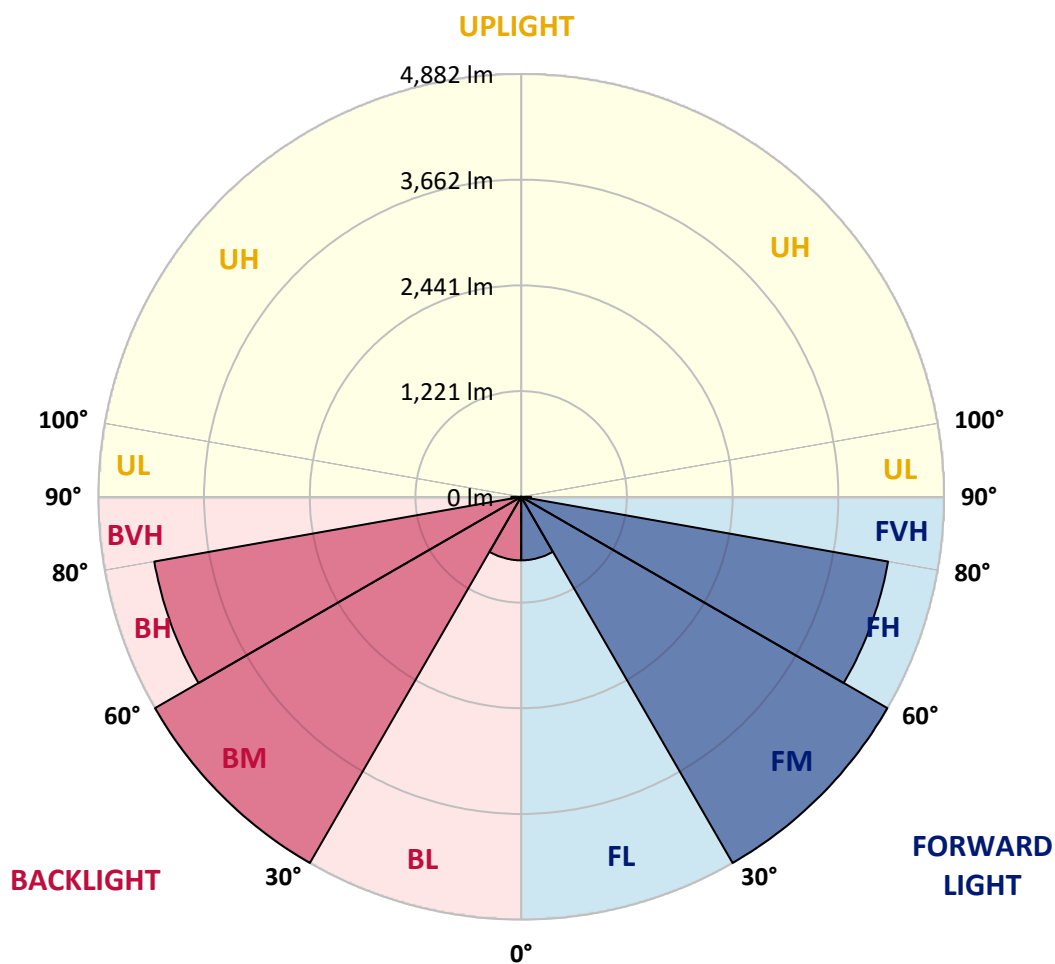
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	733.0	3.7			
FM	(30°-60°)	4882.0	24.3			
FH	(60°-80°)	4301.4	21.4			G2/5000
FVH	(80°-90°)	113.0	0.6			G2/225
BL	(0°-30°)	733.0	3.7	B2/1000		
BM	(30°-60°)	4882.0	24.3	B3/5000		
BH	(60°-80°)	4301.4	21.4	B4/5000		G2/5000
BVH	(80°-90°)	113.0	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	1339.4	1339.4	1339.4	1339.4	1339.4	1339.4	1339.4	1339.4	1339.4	1339.4	1339.4
2.5°	1348.2	1345.7	1346.9	1348.2	1346.9	1345.7	1345.7	1345.7	1348.2	1345.7	1351.9
5°	1374.5	1372.0	1373.3	1373.3	1373.3	1370.8	1370.8	1370.8	1369.5	1370.8	1384.6
7.5°	1424.7	1420.9	1419.7	1422.2	1419.7	1418.4	1417.2	1417.2	1414.7	1414.7	1432.2
10°	1484.9	1479.9	1482.4	1483.6	1479.9	1477.4	1477.4	1477.4	1473.6	1472.3	1494.9
12.5°	1551.4	1548.8	1548.8	1546.3	1545.1	1542.6	1541.3	1542.6	1537.6	1537.6	1560.1
15°	1615.3	1610.3	1611.5	1607.8	1605.3	1602.8	1601.5	1600.3	1597.8	1597.8	1611.5
17.5°	1674.3	1670.5	1669.2	1665.5	1661.7	1658.0	1655.4	1654.2	1650.4	1650.4	1663.0
20°	1735.7	1731.9	1729.4	1723.2	1716.9	1713.1	1708.1	1705.6	1700.6	1701.8	1715.6
22.5°	1805.9	1799.7	1794.7	1789.6	1778.3	1770.8	1764.6	1759.5	1757.0	1757.0	1775.8
25°	1900.0	1896.2	1888.7	1872.4	1858.6	1847.3	1837.3	1832.3	1827.3	1824.8	1853.6
27.5°	2015.4	2011.6	2001.6	1985.3	1966.5	1947.7	1936.4	1927.6	1921.3	1917.6	1958.9
30°	2168.4	2162.1	2153.3	2127.0	2110.7	2081.8	2069.3	2056.8	2043.0	2046.7	2095.6
32.5°	2468.1	2459.3	2431.7	2402.9	2352.7	2313.9	2273.7	2243.6	2214.8	2211.0	2263.7
35°	2740.3	2736.5	2731.5	2711.4	2692.6	2668.8	2650.0	2618.6	2592.3	2586.0	2734.0
37.5°	2887.0	2895.8	2888.2	2885.7	2885.7	2897.0	2932.1	2967.3	2992.3	3007.4	3090.2
40°	3111.5	3111.5	3102.7	3097.7	3087.7	3102.7	3117.8	3144.1	3155.4	3156.6	3240.7
42.5°	3366.1	3367.3	3358.5	3343.5	3338.5	3352.3	3372.3	3397.4	3412.5	3416.2	3514.1
45°	3649.5	3645.7	3638.2	3633.2	3637.0	3649.5	3673.3	3722.2	3744.8	3762.4	3869.0
47.5°	3956.8	3981.8	3960.5	3964.3	3964.3	4003.2	4057.1	4097.2	4133.6	4167.5	4280.3
50°	4359.3	4363.1	4366.9	4378.1	4385.7	4437.1	4504.8	4552.5	4605.1	4649.0	4833.4
52.5°	4897.4	4889.8	4908.6	4921.2	4963.8	4991.4	5104.3	5164.5	5237.2	5293.7	5563.3
55°	5540.7	5537.0	5564.5	5574.6	5631.0	5698.7	5824.2	5955.8	6080.0	6149.0	6517.7
57.5°	6002.2	6012.3	6059.9	6126.4	6236.8	6381.0	6567.8	6858.8	7094.6	7169.8	7576.2
60°	6103.8	6136.4	6207.9	6340.9	6530.2	6798.6	7166.1	7611.3	8042.7	8186.9	8568.2
62.5°	5819.1	5856.8	5962.1	6121.4	6368.4	6766.0	7296.5	7924.8	8565.7	8886.7	9078.6
63°	5728.8	5775.2	5854.3	6038.6	6289.4	6682.0	7246.3	7923.6	8588.2	8938.1	9088.6
65°	5304.9	5313.7	5431.6	5616.0	5898.1	6305.7	6875.1	7657.7	8395.1	8798.9	8694.8
67.5°	4565.0	4601.4	4700.5	4886.1	5160.7	5584.6	6202.9	6926.5	7574.9	7897.2	7431.9
70°	3688.4	3685.9	3808.8	3958.0	4200.1	4572.5	5114.3	5767.7	6281.9	6516.4	5737.6
72.5°	2634.9	2569.7	2660.0	2825.5	3023.7	3320.9	3749.8	4257.8	4718.0	4921.2	4195.0
75°	1200.2	1182.6	1262.9	1427.2	1627.9	1892.5	2244.9	2683.8	3125.3	3363.6	2672.5
77.5°	403.8	408.8	440.2	499.1	607.0	739.9	959.4	1240.3	1597.8	1833.5	1254.1
80°	270.9	278.4	288.4	297.2	309.8	329.8	377.5	450.2	560.6	678.5	396.3
82.5°	222.0	230.8	253.3	263.4	270.9	277.2	280.9	285.9	285.9	288.4	250.8
85°	159.3	174.3	204.4	223.2	230.8	235.8	242.0	249.6	238.3	228.3	194.4
87.5°	55.2	75.2	110.4	121.7	130.4	131.7	140.5	155.5	148.0	120.4	58.9
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°	1339.4	1339.4	1339.4	1339.4	1339.4	1339.4	1339.4	1339.4	1339.4
2.5°	1345.7	1344.4	1345.7	1346.9	1346.9	1346.9	1348.2	1349.4	1349.4
5°	1370.8	1372.0	1370.8	1372.0	1372.0	1373.3	1373.3	1375.8	1375.8
7.5°	1413.4	1415.9	1414.7	1417.2	1417.2	1419.7	1418.4	1422.2	1422.2
10°	1471.1	1473.6	1476.1	1477.4	1476.1	1478.6	1481.1	1482.4	1481.1
12.5°	1536.3	1537.6	1536.3	1538.8	1538.8	1541.3	1541.3	1545.1	1545.1
15°	1596.5	1595.2	1594.0	1597.8	1600.3	1601.5	1604.0	1607.8	1604.0
17.5°	1650.4	1651.7	1649.2	1652.9	1658.0	1661.7	1664.2	1669.2	1668.0
20°	1704.4	1701.8	1704.4	1710.6	1715.6	1720.7	1725.7	1733.2	1731.9
22.5°	1757.0	1759.5	1765.8	1770.8	1779.6	1787.1	1793.4	1803.4	1807.2
25°	1831.0	1831.0	1841.1	1847.3	1859.9	1869.9	1883.7	1895.0	1901.3
27.5°	1925.1	1925.1	1936.4	1950.2	1969.0	1986.5	2001.6	2016.6	2014.1
30°	2053.0	2059.3	2069.3	2086.9	2111.9	2133.3	2153.3	2168.4	2169.6
32.5°	2221.1	2228.6	2258.7	2303.8	2356.5	2396.6	2426.7	2463.1	2468.1
35°	2602.3	2621.1	2660.0	2696.4	2717.7	2741.5	2756.6	2757.8	2760.3
37.5°	3003.6	2971.0	2940.9	2913.3	2900.8	2898.3	2898.3	2903.3	2905.8
40°	3150.4	3134.1	3120.3	3102.7	3107.7	3106.5	3115.2	3122.8	3127.8
42.5°	3401.2	3388.6	3376.1	3353.5	3366.1	3362.3	3374.8	3386.1	3392.4
45°	3751.1	3712.2	3684.6	3648.2	3660.8	3653.3	3653.3	3667.1	3669.6
47.5°	4137.4	4092.2	4035.8	3990.6	3975.6	3961.8	3974.3	3974.3	3960.5
50°	4600.1	4546.2	4479.7	4407.0	4381.9	4368.1	4373.1	4379.4	4340.5
52.5°	5228.4	5168.2	5074.2	4963.8	4940.0	4928.7	4926.2	4917.4	4907.4
55°	6080.0	5967.1	5851.7	5706.3	5662.4	5649.8	5651.1	5641.0	5664.9
57.5°	7084.5	6919.0	6653.1	6476.3	6370.9	6330.8	6294.4	6279.4	6280.7
60°	8079.1	7741.7	7344.2	7035.6	6814.9	6674.4	6564.1	6502.6	6485.1
62.5°	8719.9	8189.4	7592.5	7092.1	6729.6	6497.6	6323.3	6212.9	6177.8
63°	8770.1	8208.2	7569.9	7033.1	6651.9	6408.6	6225.5	6111.3	6073.7
65°	8661.0	8018.9	7275.2	6635.6	6217.9	5948.3	5750.2	5642.3	5613.5
67.5°	7813.2	7278.9	6521.4	5860.5	5439.1	5165.7	4938.7	4835.9	4803.3
70°	6355.9	5989.7	5368.9	4804.5	4412.0	4148.6	3919.1	3833.9	3832.6
72.5°	4711.7	4236.4	3866.5	3452.6	3110.2	2900.8	2701.4	2606.1	2558.4
75°	3116.5	2607.3	2193.5	1844.8	1503.7	1315.6	1091.1	994.5	938.1
77.5°	1570.2	1163.8	834.0	578.2	449.0	368.7	337.4	321.1	319.8
80°	523.0	392.5	337.4	316.0	309.8	311.0	307.3	301.0	293.5
82.5°	289.7	304.8	307.3	298.5	298.5	293.5	288.4	264.6	252.1
85°	248.3	273.4	275.9	270.9	269.6	262.1	253.3	220.7	201.9
87.5°	155.5	179.3	175.6	156.8	173.1	161.8	153.0	99.1	72.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)