

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: McGRAW-EDISON

Report Number: P299894

Luminaire Tested: **GLNA-AF-04-LED-E1-5WQ-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299894
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-04-LED-E1-5WQ-7030-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19694.8 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G3

Input Watts (W): 171
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

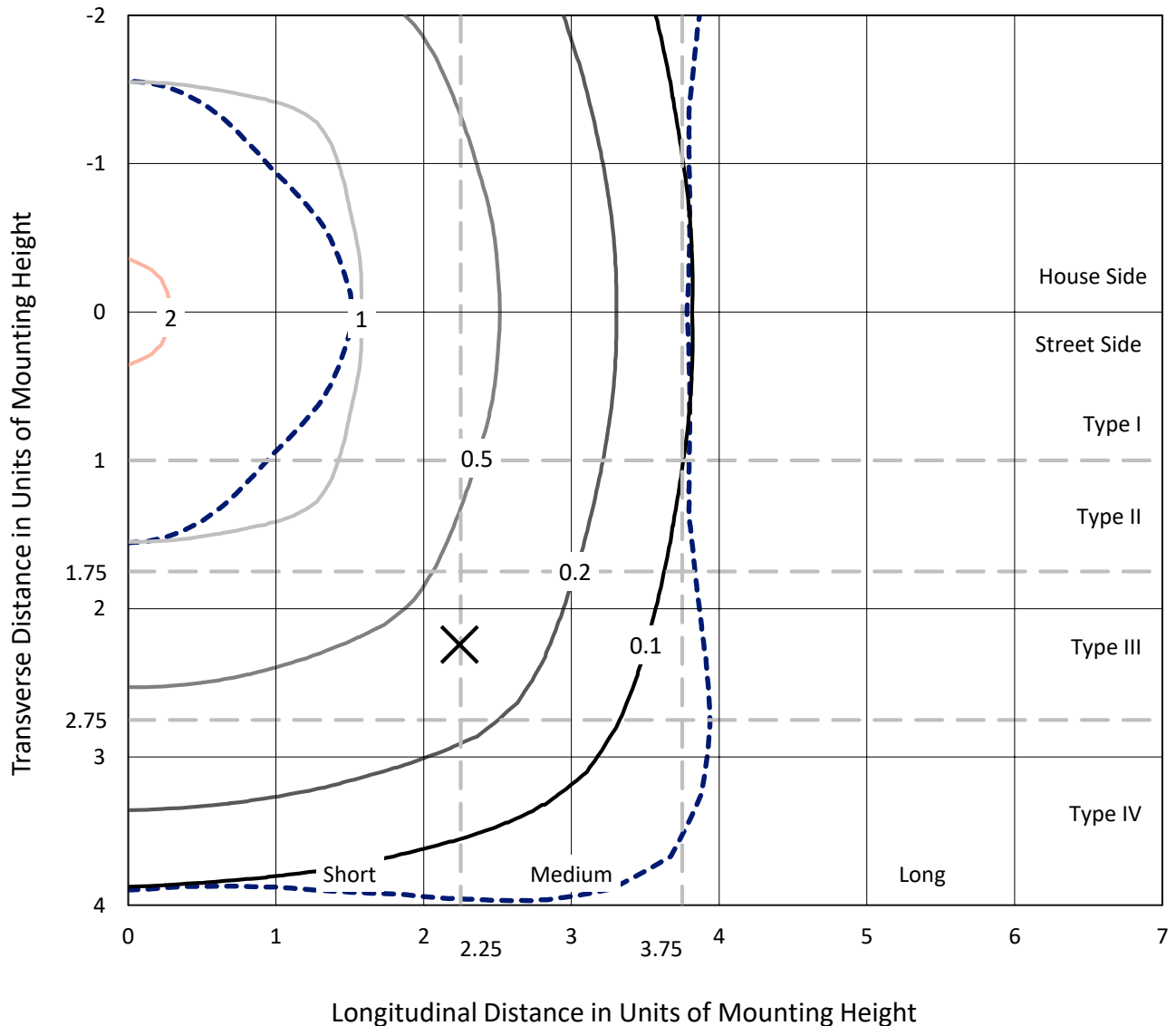


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

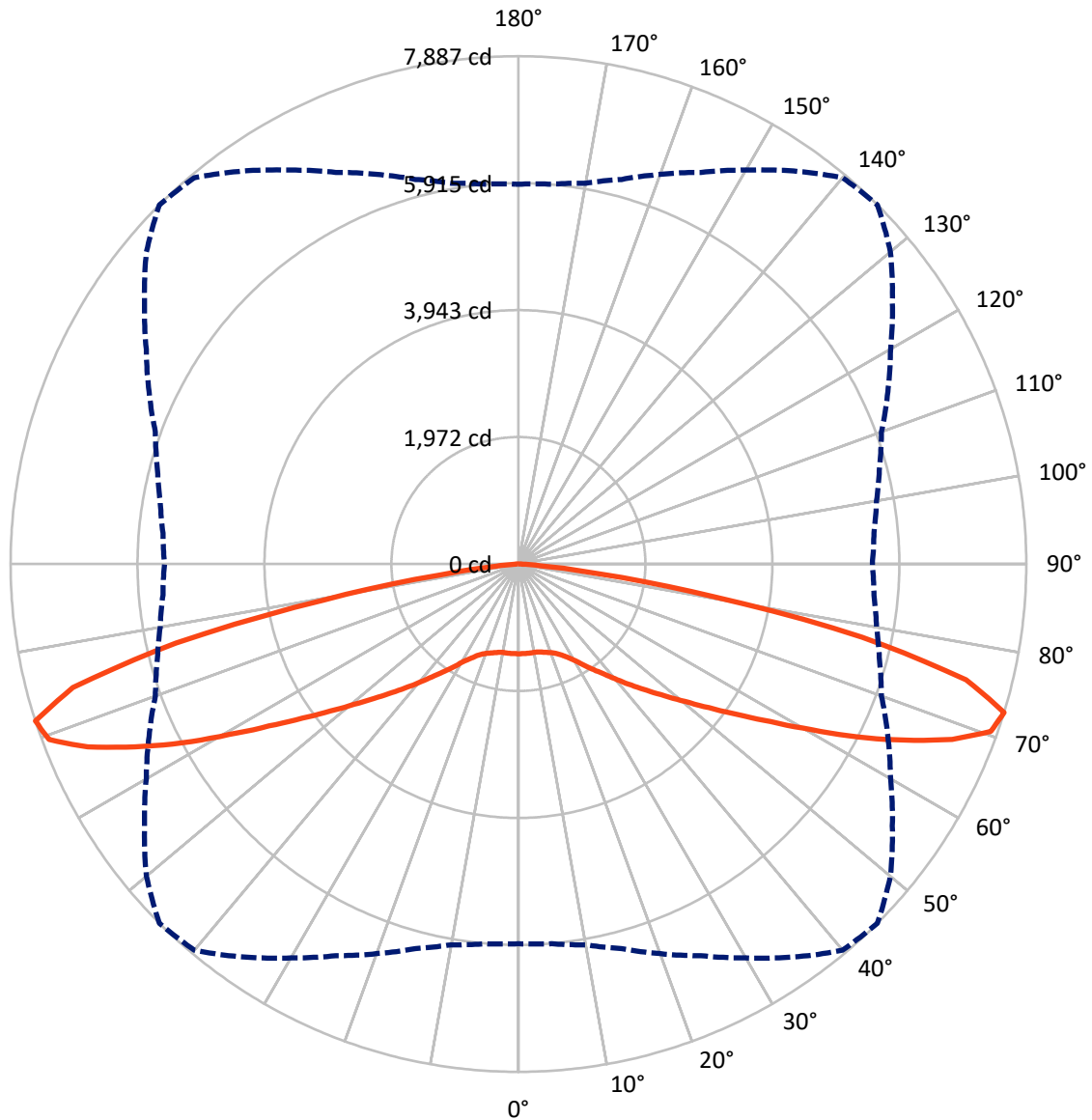


Based on 25 foot mounting height. Maximum calculated value = 2.2 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9847.4	0.0	9847.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	9847.4	0.0	9847.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	19694.8	0.0	19694.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.2	0.7
10°-20°	404.5	2.1
20°-30°	739.1	3.8
30°-40°	1274.4	6.5
40°-50°	2178.6	11.1
50°-60°	3531.2	17.9
60°-70°	5858.1	29.7
70°-80°	5159.7	26.2
80°-90°	416.0	2.1
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°	19694.8	100.0
0°-180°	19694.8	100.0



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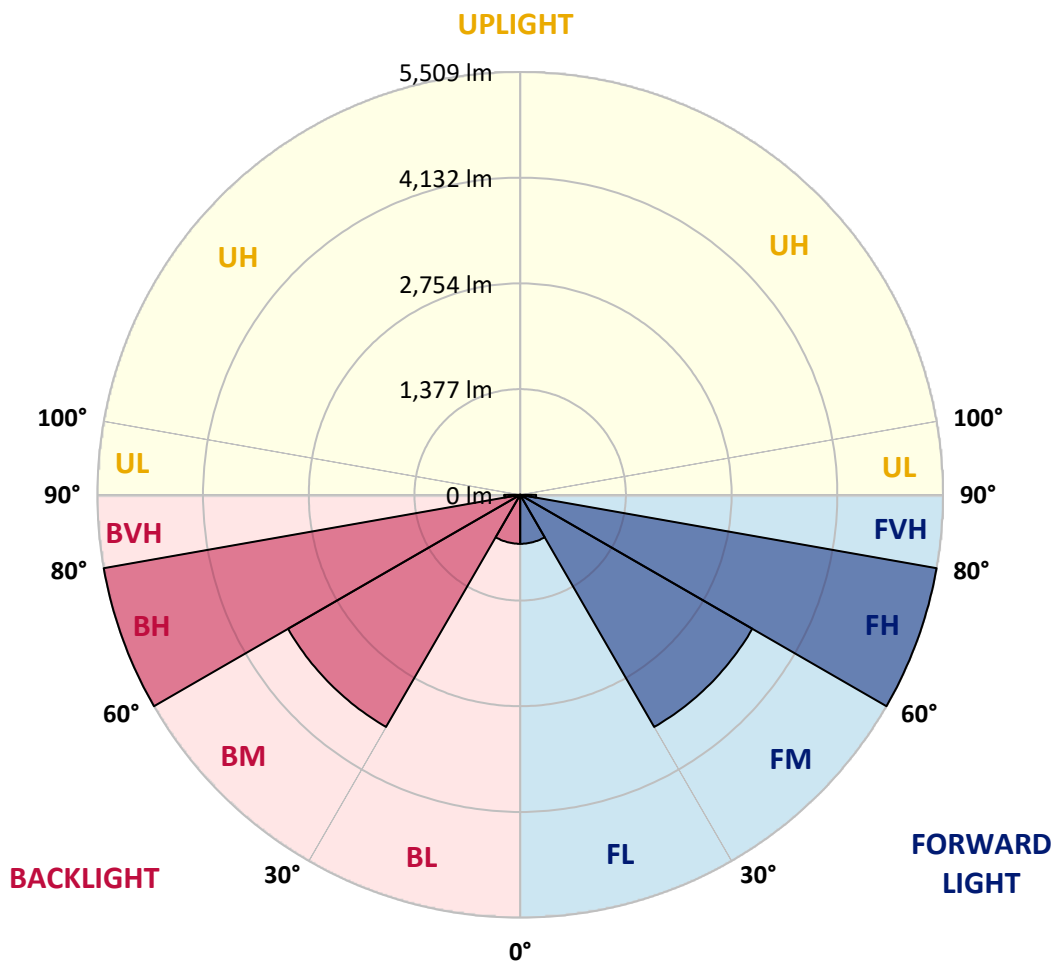
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	638.4	3.2			
FM	(30°-60°)	3492.1	17.7			
FH	(60°-80°)	5508.9	28.0			G3/7500
FVH	(80°-90°)	208.0	1.1			G2/225
BL	(0°-30°)	638.4	3.2	B2/1000		
BM	(30°-60°)	3492.1	17.7	B3/5000		
BH	(60°-80°)	5508.9	28.0	B5		G3/7500
BVH	(80°-90°)	208.0	1.1			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°	50°
0°	1394.7	1394.7	1394.7	1394.7	1394.7	1394.7	1394.7	1394.7	1394.7	1394.7	1394.7
2.5°	1394.7	1395.6	1396.5	1395.6	1395.6	1394.7	1393.8	1394.7	1393.8	1392.0	1392.9
5°	1399.2	1401.0	1401.0	1399.2	1400.1	1399.2	1397.4	1398.3	1396.5	1393.8	1393.8
7.5°	1404.6	1405.5	1405.5	1403.7	1404.6	1402.8	1401.0	1400.1	1398.3	1394.7	1392.0
10°	1412.8	1413.7	1412.8	1411.0	1411.0	1408.2	1403.7	1401.9	1398.3	1392.9	1390.2
12.5°	1421.8	1422.7	1421.8	1420.0	1419.1	1414.6	1411.0	1408.2	1405.5	1401.0	1396.5
15°	1434.4	1436.3	1434.4	1430.8	1428.1	1424.5	1422.7	1423.6	1424.5	1420.9	1416.4
17.5°	1457.9	1458.8	1456.1	1448.0	1444.4	1440.8	1440.8	1442.6	1445.3	1443.5	1439.0
20°	1501.3	1498.6	1492.3	1482.3	1477.8	1471.5	1470.6	1471.5	1471.5	1470.6	1467.0
22.5°	1555.5	1553.7	1545.6	1532.9	1526.6	1523.0	1517.5	1513.0	1512.1	1509.4	1505.8
25°	1620.5	1619.6	1609.7	1598.8	1594.3	1589.8	1585.3	1579.0	1573.6	1567.2	1563.6
27.5°	1703.6	1700.0	1685.6	1680.1	1673.8	1671.1	1664.8	1657.6	1653.0	1644.9	1640.4
30°	1794.9	1794.9	1783.1	1781.3	1781.3	1775.0	1767.8	1755.1	1747.0	1738.9	1736.1
32.5°	1886.1	1887.0	1875.3	1878.9	1881.6	1886.1	1887.9	1883.4	1878.0	1877.1	1871.6
35°	2018.0	2014.4	2002.6	2005.3	2004.4	2003.5	2003.5	2013.5	2015.3	2017.1	2006.2
37.5°	2181.5	2181.5	2169.7	2169.7	2164.3	2158.9	2151.7	2158.0	2167.9	2170.6	2163.4
40°	2368.5	2374.8	2360.3	2359.4	2361.2	2344.1	2335.9	2345.9	2352.2	2363.0	2354.9
42.5°	2588.9	2584.3	2569.9	2568.1	2558.2	2552.7	2545.5	2553.6	2563.6	2570.8	2573.5
45°	2800.2	2796.6	2780.4	2780.4	2770.4	2765.9	2769.5	2783.1	2787.6	2797.5	2807.5
47.5°	3008.9	3004.4	2993.5	2998.1	2999.0	3007.1	3018.8	3031.5	3044.1	3057.7	3062.2
50°	3222.1	3223.0	3211.2	3222.1	3235.6	3258.2	3289.8	3310.6	3336.8	3354.0	3359.4
52.5°	3416.3	3419.9	3432.5	3457.8	3484.9	3529.2	3583.4	3634.0	3677.3	3706.2	3704.4
55°	3649.3	3654.8	3685.5	3728.8	3773.1	3839.9	3920.3	4009.8	4082.0	4123.6	4097.4
57.5°	3947.4	3959.2	3993.5	4052.2	4118.2	4204.9	4315.1	4449.7	4561.7	4617.7	4575.2
60°	4356.6	4363.9	4405.4	4470.4	4549.9	4657.4	4804.7	4985.3	5143.4	5217.5	5168.7
62.5°	4895.9	4909.4	4942.9	5008.8	5090.1	5212.1	5391.8	5617.6	5814.6	5917.5	5807.3
65°	5540.0	5583.3	5611.3	5678.2	5754.0	5883.2	6071.1	6313.2	6524.6	6592.3	6464.9
67.5°	6177.7	6215.6	6264.4	6341.2	6418.0	6563.4	6737.7	6972.6	7204.7	7266.2	7068.3
70°	6456.8	6478.5	6554.4	6659.1	6806.4	6978.0	7179.4	7443.2	7730.5	7781.0	7529.9
72.5°	5897.7	5919.3	6004.3	6182.2	6438.7	6711.5	7062.9	7450.4	7829.8	7886.7	7540.8
75°	4460.5	4425.3	4550.8	4786.6	5132.6	5512.9	6004.3	6559.8	7108.1	7179.4	6766.6
77.5°	2305.2	2300.7	2395.6	2688.2	3101.0	3533.7	4074.8	4702.6	5239.2	5455.9	5119.9
80°	649.5	656.7	701.9	847.3	1088.5	1401.0	1823.8	2411.8	2850.8	3074.8	2887.0
82.5°	254.7	274.6	291.8	318.9	350.5	396.5	529.3	787.7	1056.9	1262.8	1034.3
85°	91.2	97.6	138.2	163.5	166.2	175.2	199.6	233.1	280.9	335.1	275.5
87.5°	34.3	37.9	44.3	73.2	72.3	65.9	80.4	84.0	63.2	57.8	71.4
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1394.7	1394.7	1394.7	1394.7	1394.7	1394.7	1394.7	1394.7
2.5°	1391.1	1392.0	1392.0	1392.9	1393.8	1393.8	1395.6	1395.6
5°	1392.0	1392.0	1390.2	1391.1	1390.2	1390.2	1391.1	1391.1
7.5°	1390.2	1389.3	1387.5	1386.6	1384.8	1384.8	1384.8	1384.8
10°	1387.5	1386.6	1384.8	1383.9	1383.0	1383.0	1383.0	1383.0
12.5°	1394.7	1392.0	1390.2	1389.3	1389.3	1389.3	1389.3	1389.3
15°	1413.7	1407.3	1402.8	1402.8	1403.7	1405.5	1405.5	1407.3
17.5°	1437.2	1429.9	1425.4	1421.8	1423.6	1426.3	1428.1	1429.9
20°	1465.2	1461.5	1455.2	1451.6	1451.6	1455.2	1457.0	1457.9
22.5°	1504.0	1501.3	1498.6	1494.1	1494.1	1495.9	1499.5	1499.5
25°	1561.8	1560.0	1558.2	1554.6	1553.7	1553.7	1555.5	1557.3
27.5°	1634.1	1635.0	1633.2	1632.3	1629.6	1628.7	1631.4	1630.5
30°	1730.7	1735.2	1739.8	1736.1	1731.6	1728.9	1726.2	1722.6
32.5°	1861.7	1856.3	1852.7	1846.4	1838.2	1831.0	1825.6	1819.3
35°	1985.5	1976.4	1972.8	1978.2	1977.3	1972.8	1966.5	1961.1
37.5°	2137.2	2135.4	2137.2	2147.1	2145.3	2149.9	2137.2	2136.3
40°	2328.7	2330.5	2343.2	2354.9	2361.2	2367.6	2360.3	2353.1
42.5°	2550.9	2550.0	2554.5	2570.8	2581.6	2588.9	2573.5	2571.7
45°	2785.8	2779.5	2783.1	2796.6	2807.5	2815.6	2798.4	2798.4
47.5°	3044.1	3033.3	3021.5	3036.9	3043.2	3048.6	3035.1	3030.6
50°	3332.3	3309.7	3284.4	3290.7	3290.7	3288.9	3271.8	3270.9
52.5°	3662.9	3621.3	3575.3	3558.1	3548.2	3537.3	3507.5	3493.1
55°	4043.2	3980.9	3908.6	3864.3	3840.8	3811.0	3761.4	3747.8
57.5°	4487.6	4390.0	4265.4	4211.2	4158.8	4110.0	4054.9	4039.6
60°	5014.2	4870.6	4705.3	4605.0	4548.1	4501.2	4444.2	4441.5
62.5°	5601.4	5374.6	5187.7	5097.3	5055.8	5014.2	4960.0	4967.3
65°	6198.5	5961.8	5786.6	5713.4	5674.5	5640.2	5586.0	5594.2
67.5°	6787.4	6569.7	6377.3	6302.3	6259.0	6215.6	6166.8	6175.0
70°	7210.2	6940.1	6723.3	6557.1	6453.2	6335.8	6259.9	6240.9
72.5°	7089.1	6672.7	6328.5	5998.8	5805.5	5648.3	5541.8	5495.7
75°	6135.2	5566.1	5123.5	4718.9	4491.2	4306.0	4171.5	4087.4
77.5°	4556.3	3916.7	3393.7	2927.6	2559.1	2311.6	2137.2	2024.3
80°	2494.0	1896.9	1386.6	974.7	716.3	595.3	525.7	492.3
82.5°	776.8	501.3	369.5	318.9	296.3	283.6	262.9	229.4
85°	247.5	216.8	201.4	192.4	183.4	159.9	110.2	100.3
87.5°	95.8	98.5	97.6	92.1	93.9	67.7	54.2	47.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)