

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: P299407

Luminaire Tested: **GLNA-AF-03-LED-E1-5NQ-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299407
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-03-LED-E1-5NQ-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13112.3 lumens
Efficiency: N/A
Efficacy: 105.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G2

Input Watts (W): 124
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

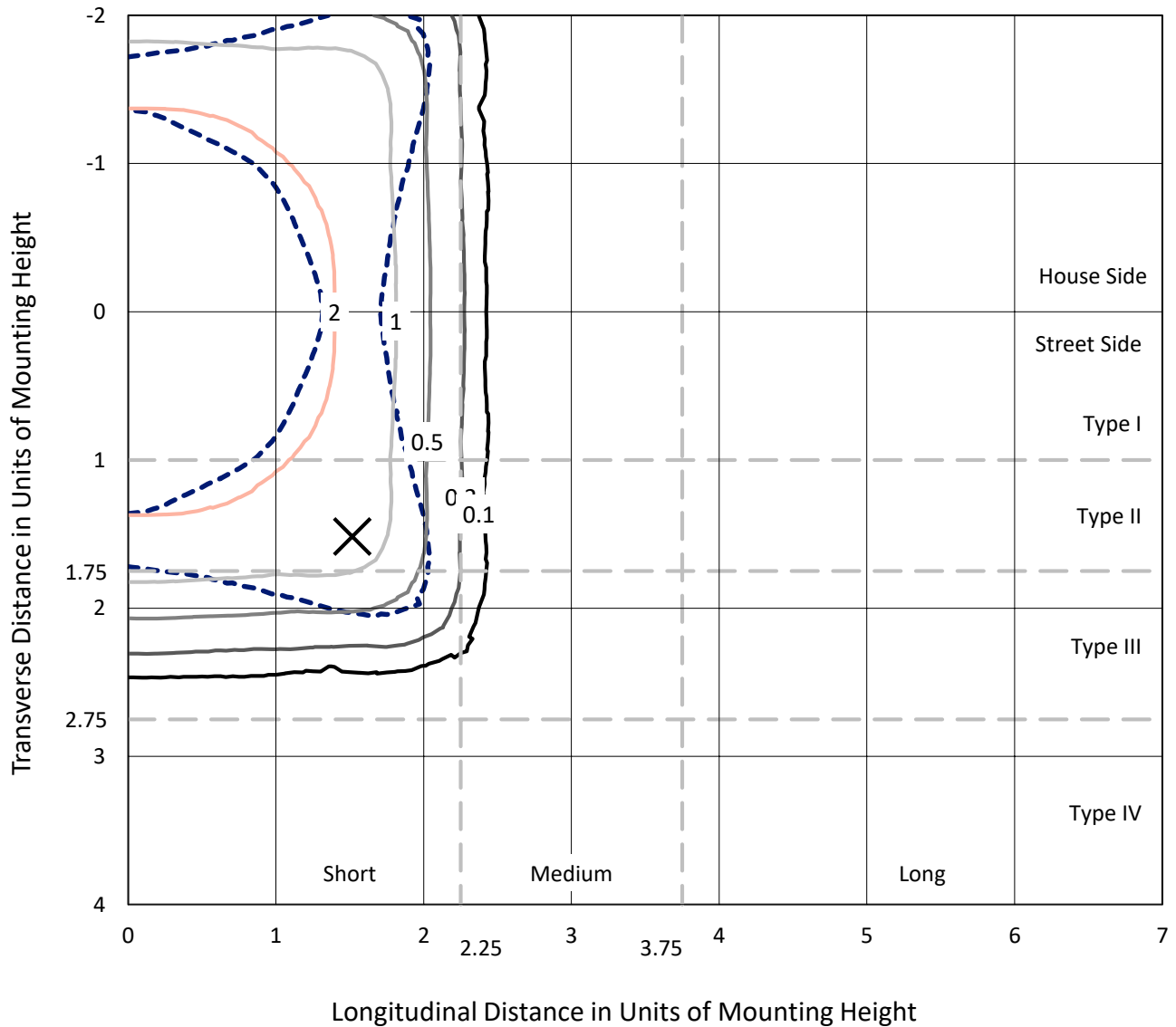


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Iso-Footcandle Lines of Horizontal Illumination

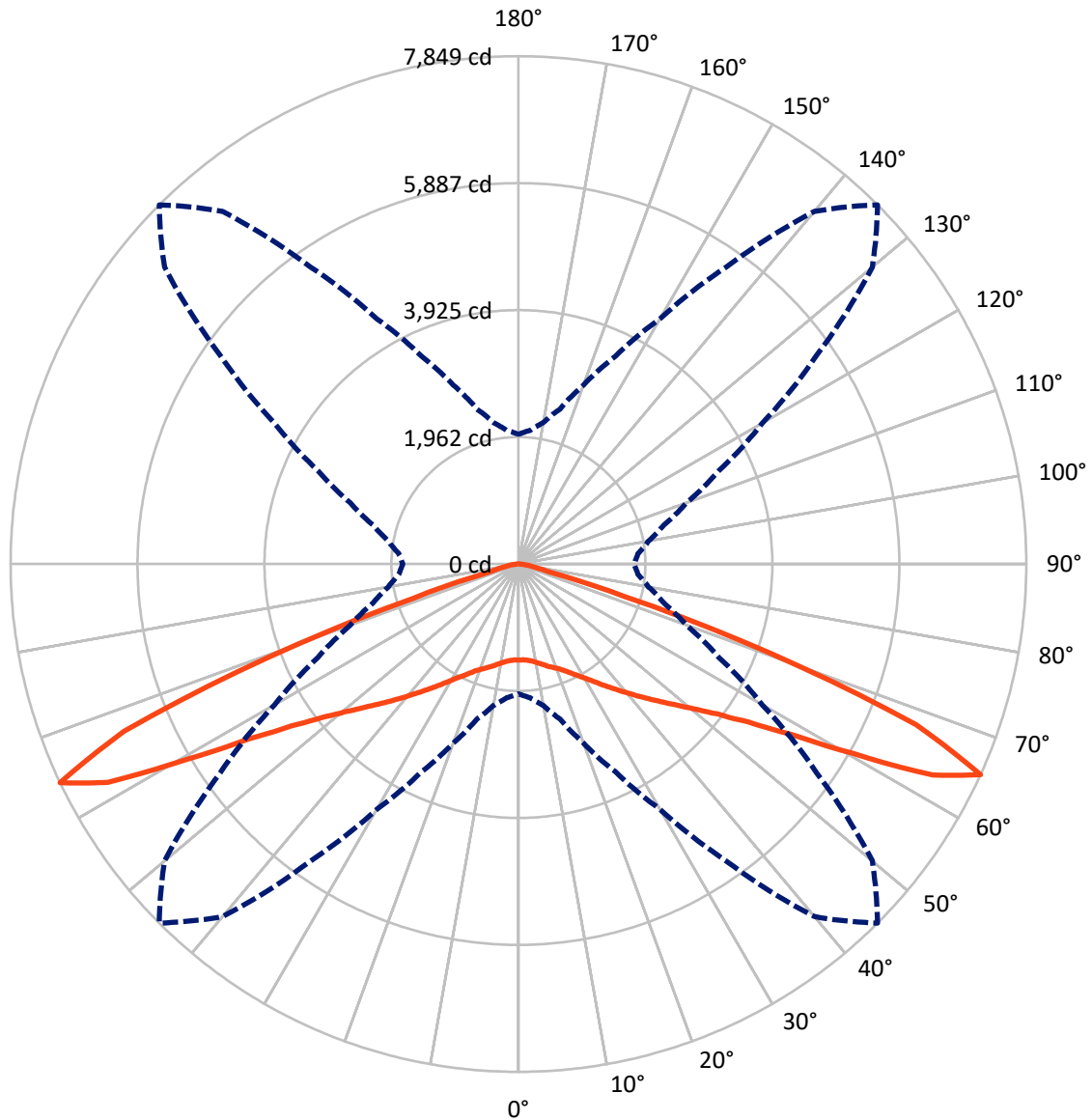
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.7 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6556.1	0.0	6556.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6556.1	0.0	6556.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	13112.3	0.0	13112.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.6	1.1
10°-20°	463.8	3.5
20°-30°	867.2	6.6
30°-40°	1466.7	11.2
40°-50°	2398.2	18.3
50°-60°	3813.4	29.1
60°-70°	3447.1	26.3
70°-80°	436.2	3.3
80°-90°	75.0	0.6
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°	13112.3	100.0
0°-180°	13112.3	100.0



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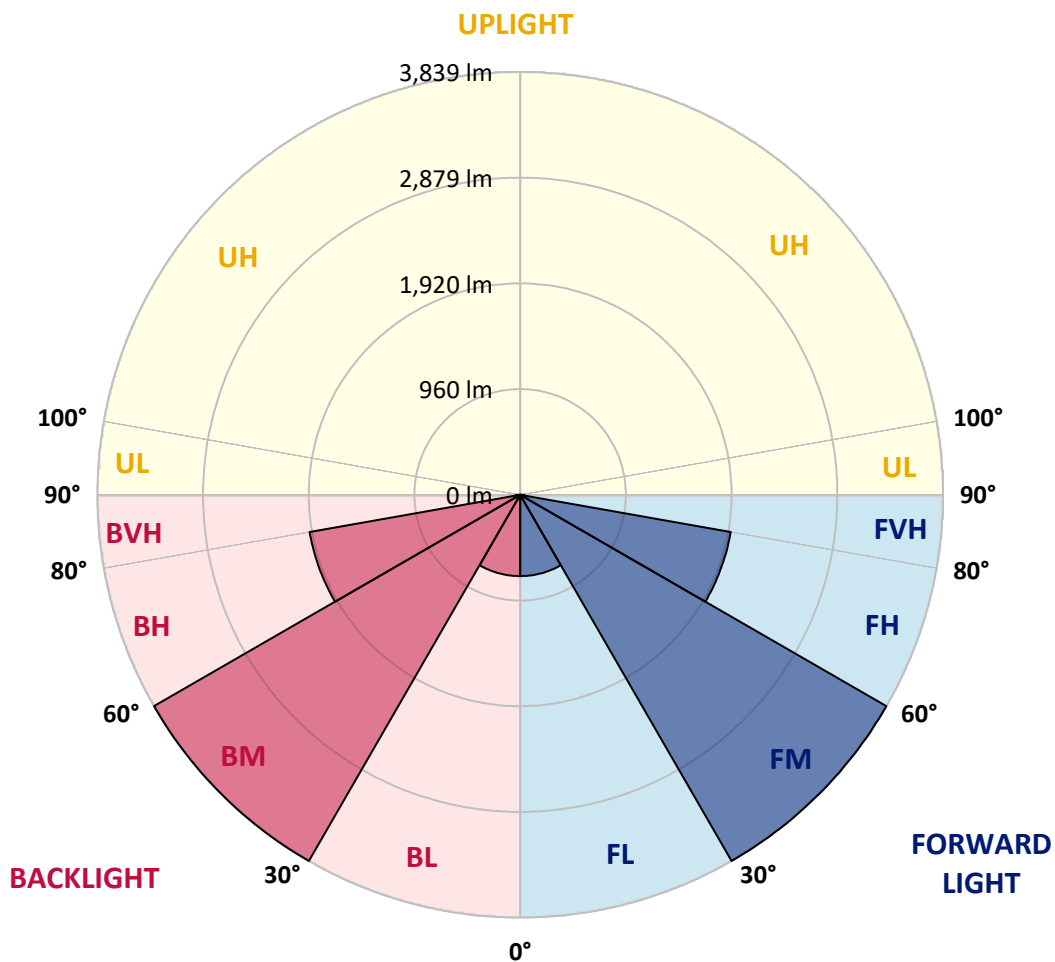
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	737.8	5.6			
FM	(30°-60°)	3839.1	29.3			
FH	(60°-80°)	1941.7	14.8			G2/5000
FVH	(80°-90°)	37.5	0.3			G1/100
BL	(0°-30°)	737.8	5.6	B2/1000		
BM	(30°-60°)	3839.1	29.3	B3/5000		
BH	(60°-80°)	1941.7	14.8	B3/2500		G2/5000
BVH	(80°-90°)	37.5	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1483.7	1483.7	1483.7	1483.7	1483.7	1483.7	1483.7	1483.7	1483.7	1483.7	1483.7
2.5°	1484.9	1486.1	1487.3	1486.1	1487.3	1485.5	1484.3	1486.1	1484.3	1482.4	1483.7
5°	1497.8	1498.4	1498.4	1496.6	1498.4	1497.2	1495.3	1497.8	1495.9	1494.1	1495.3
7.5°	1519.3	1521.7	1519.9	1518.0	1519.3	1518.0	1516.8	1517.4	1516.8	1515.0	1515.6
10°	1548.1	1550.0	1548.8	1548.1	1549.4	1548.8	1547.5	1546.9	1547.5	1545.7	1545.7
12.5°	1583.1	1582.5	1581.9	1582.5	1584.4	1584.4	1583.8	1584.4	1585.6	1586.2	1585.0
15°	1617.5	1618.8	1618.8	1618.8	1622.4	1625.5	1627.4	1628.6	1631.0	1631.7	1629.2
17.5°	1660.5	1660.5	1659.9	1660.5	1664.2	1669.1	1671.0	1673.4	1675.9	1677.7	1674.6
20°	1708.4	1709.6	1709.6	1710.9	1715.8	1721.3	1721.3	1722.5	1721.3	1722.5	1720.7
22.5°	1766.8	1770.4	1770.4	1771.1	1776.0	1782.7	1780.9	1782.7	1779.7	1782.1	1779.7
25°	1842.9	1848.4	1847.2	1847.2	1850.9	1855.2	1855.8	1859.5	1858.9	1861.9	1860.1
27.5°	1928.9	1937.5	1939.9	1939.3	1941.8	1946.1	1947.3	1951.6	1949.1	1951.6	1950.4
30°	2032.0	2035.7	2040.6	2042.5	2045.6	2049.9	2049.9	2050.5	2047.4	2051.1	2052.9
32.5°	2138.9	2145.7	2150.6	2161.6	2167.1	2170.2	2169.6	2170.8	2167.8	2172.7	2176.4
35°	2280.1	2285.1	2293.0	2301.6	2309.0	2308.4	2306.5	2307.2	2307.2	2311.5	2315.1
37.5°	2450.2	2451.5	2461.9	2474.2	2477.9	2474.2	2463.1	2460.7	2455.2	2460.7	2466.8
40°	2630.2	2634.5	2655.4	2663.3	2665.2	2658.4	2642.5	2633.2	2621.0	2627.7	2636.3
42.5°	2818.7	2827.3	2846.3	2860.5	2866.6	2862.3	2840.2	2826.1	2810.1	2813.8	2822.4
45°	3027.5	3037.9	3065.0	3078.5	3090.1	3083.4	3061.9	3040.4	3015.2	3017.1	3030.6
47.5°	3260.9	3271.3	3306.3	3329.0	3335.2	3333.9	3310.0	3280.5	3246.1	3244.9	3256.6
50°	3522.5	3532.9	3576.5	3611.5	3629.3	3627.5	3599.2	3557.5	3515.7	3516.3	3531.1
52.5°	3777.9	3790.8	3836.3	3896.4	3931.5	3956.6	3939.4	3900.1	3849.2	3850.4	3863.9
55°	4017.4	4038.9	4091.1	4172.8	4237.9	4308.5	4328.8	4327.5	4296.8	4305.4	4318.9
57.5°	4133.5	4165.4	4245.9	4374.8	4507.5	4651.2	4772.8	4863.7	4902.3	4960.7	4947.2
60°	3913.6	3964.6	4083.1	4272.9	4535.1	4834.8	5156.0	5469.8	5737.5	5939.5	5823.5
62.5°	3204.4	3270.7	3414.4	3657.6	4054.3	4533.9	5148.6	5890.4	6698.6	7186.2	6838.0
65°	2005.0	2073.8	2220.0	2480.3	2944.6	3540.9	4374.8	5604.3	7114.3	7849.4	7140.7
67.5°	781.7	819.2	898.4	1064.8	1413.7	1944.2	2781.2	4176.5	5982.5	6626.7	5871.4
70°	391.8	395.5	410.2	440.9	515.8	670.0	1019.4	1936.2	3431.0	4143.9	3307.5
72.5°	283.1	283.7	291.1	304.6	328.5	362.9	429.3	592.6	1115.8	1705.3	1045.8
75°	216.8	219.2	223.5	230.9	243.8	261.0	284.9	341.4	423.1	490.7	412.7
77.5°	167.0	171.9	175.0	181.8	189.8	201.4	208.2	229.7	267.1	281.3	277.0
80°	127.1	131.4	138.2	143.7	149.2	154.8	152.3	162.1	181.8	193.4	187.3
82.5°	81.1	86.0	105.6	110.5	113.0	116.7	112.4	113.0	121.6	129.0	121.6
85°	52.2	55.3	66.9	73.1	73.7	76.1	74.3	70.0	70.0	63.9	71.8
87.5°	23.9	24.6	30.1	35.6	36.8	33.2	32.5	31.3	25.2	23.9	25.8
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1483.7	1483.7	1483.7	1483.7	1483.7	1483.7	1483.7	1483.7
2.5°	1483.0	1484.3	1484.9	1486.7	1487.3	1487.3	1488.0	1489.2
5°	1494.7	1496.6	1497.2	1499.6	1500.2	1499.6	1500.9	1501.5
7.5°	1515.6	1518.7	1519.9	1522.3	1520.5	1523.0	1523.6	1523.6
10°	1546.3	1549.4	1550.0	1552.4	1551.2	1552.4	1552.4	1551.2
12.5°	1586.8	1587.4	1585.6	1587.4	1585.0	1586.2	1584.4	1583.1
15°	1631.7	1629.8	1625.5	1625.5	1621.8	1622.4	1621.8	1621.2
17.5°	1675.3	1671.6	1668.5	1667.3	1664.2	1663.6	1661.7	1661.7
20°	1723.2	1721.3	1719.5	1717.0	1713.9	1710.9	1710.3	1711.5
22.5°	1780.9	1780.3	1780.3	1779.0	1774.7	1771.7	1769.8	1769.8
25°	1858.3	1852.7	1852.7	1852.1	1850.3	1848.4	1844.7	1846.6
27.5°	1945.5	1942.4	1944.8	1944.2	1942.4	1942.4	1939.9	1939.9
30°	2052.9	2051.7	2055.4	2052.3	2046.2	2045.6	2043.1	2040.0
32.5°	2177.0	2175.7	2181.3	2177.6	2167.8	2162.2	2157.3	2154.9
35°	2315.1	2315.8	2322.5	2320.1	2309.0	2305.3	2296.7	2295.5
37.5°	2466.2	2476.0	2487.7	2490.2	2481.0	2478.5	2469.3	2464.4
40°	2643.7	2656.6	2674.4	2678.7	2668.9	2667.0	2654.1	2647.4
42.5°	2832.8	2854.9	2877.0	2880.7	2870.9	2861.1	2848.8	2843.9
45°	3044.1	3070.5	3099.3	3106.7	3092.0	3080.3	3064.3	3064.3
47.5°	3281.1	3314.3	3346.8	3367.1	3353.6	3341.3	3322.3	3310.0
50°	3561.1	3606.6	3649.0	3669.8	3648.4	3625.0	3591.9	3580.8
52.5°	3912.4	3961.5	3998.4	3987.3	3954.2	3921.6	3885.4	3870.7
55°	4360.7	4377.3	4377.3	4335.5	4269.2	4214.5	4157.4	4138.4
57.5°	4921.4	4857.5	4759.3	4634.6	4478.0	4341.7	4249.6	4206.0
60°	5580.3	5273.3	4926.3	4585.5	4305.4	4074.5	3937.6	3875.0
62.5°	6019.4	5216.1	4521.0	3973.8	3571.0	3292.8	3103.6	3030.0
65°	5625.7	4350.3	3419.3	2764.7	2325.6	2042.5	1855.2	1786.4
67.5°	4120.6	2726.0	1820.8	1305.0	956.1	762.7	685.9	654.0
70°	1849.7	959.8	588.3	459.3	396.1	363.5	349.4	344.5
72.5°	557.6	403.5	340.2	307.0	281.9	265.9	254.2	253.0
75°	336.5	280.0	248.7	229.1	213.1	200.2	194.1	192.2
77.5°	235.2	205.7	191.0	176.9	164.6	154.8	149.2	144.9
80°	165.2	151.1	144.3	136.3	128.3	119.1	111.2	107.5
82.5°	110.5	107.5	107.5	102.6	95.8	87.2	71.2	67.6
85°	71.2	70.6	71.8	70.0	65.1	55.9	46.1	43.6
87.5°	33.2	33.8	37.5	36.8	35.6	29.5	23.3	22.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)