

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: P529645

Luminaire Tested: **GALN-SA4D-740-U-T2R-GRSBK**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P529645
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-057-9)
Test Lab: INNOVATION CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4D-740-U-T2R-GRSBK
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH BLACK GLARE REDUCTION SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20240 lumens
Efficiency: N/A
Efficacy: 82.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type I - Short
BUG Rating: B2 - U0 - G1

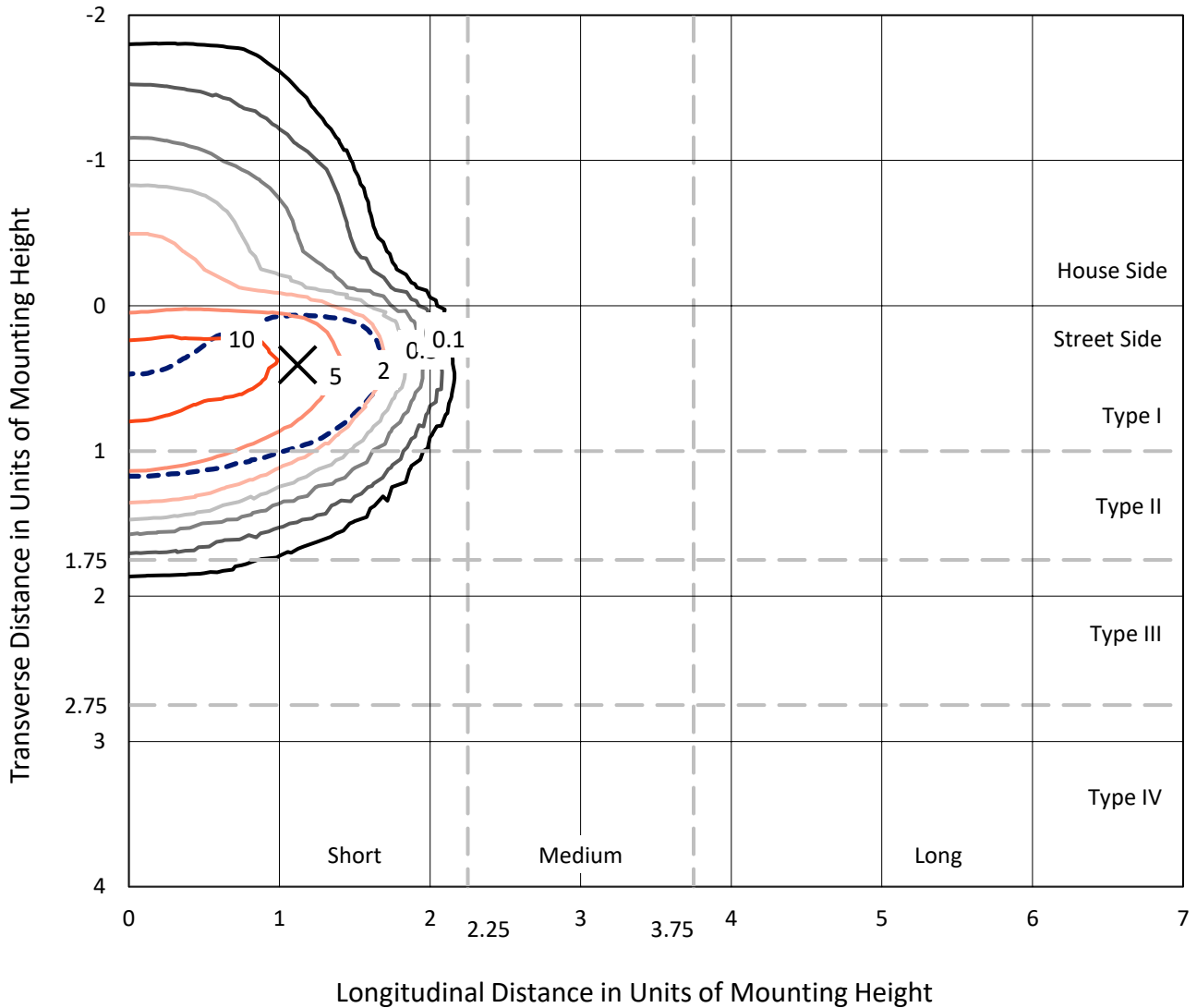
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P529645
 CATALOG NUMBER: GALN-SA4D-740-U-T2R-GRSBK

Iso-Footcandle Lines of Horizontal Illumination

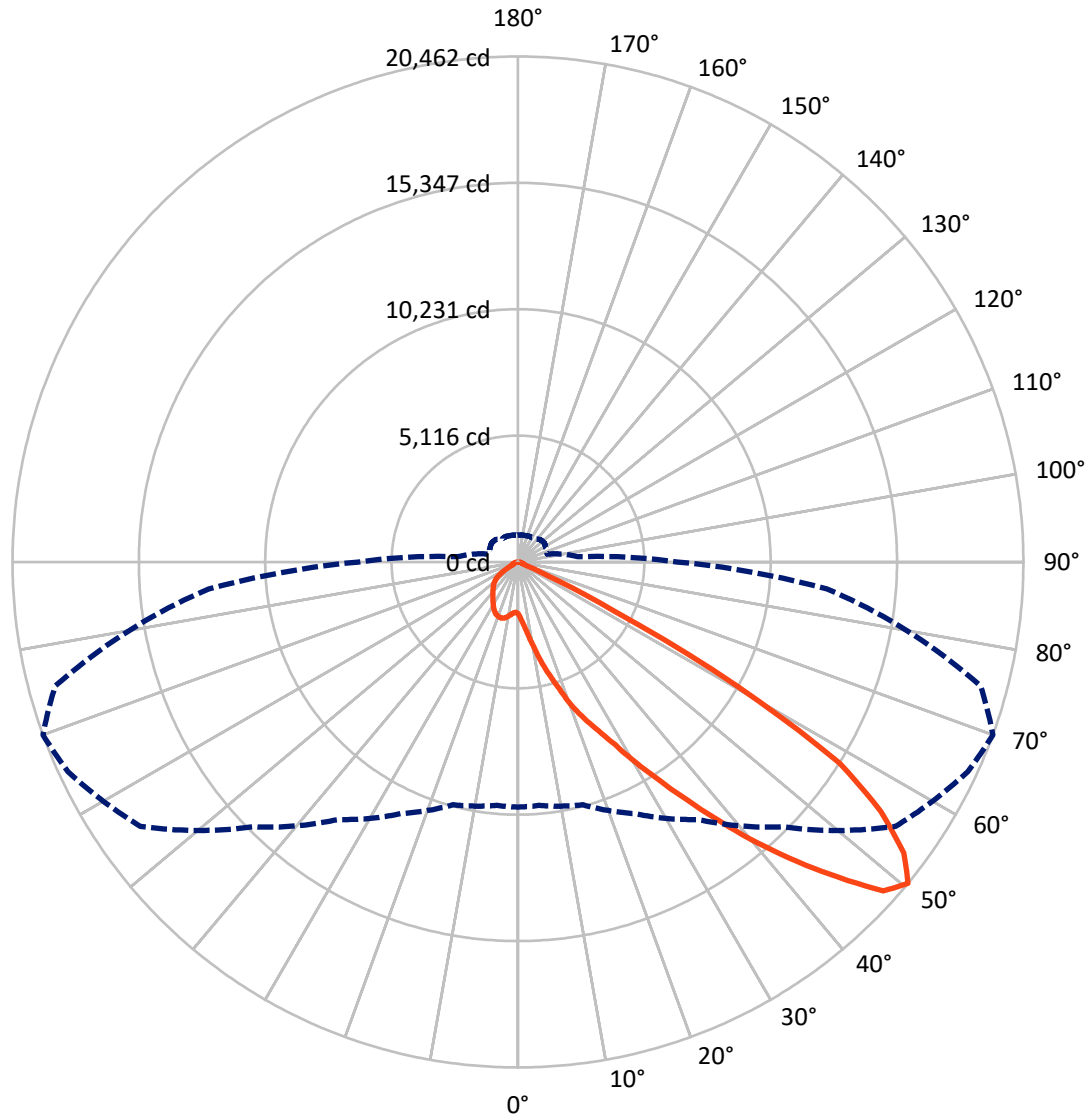
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12 fc
 Type I - Short - N/A

REPORT NUMBER: P529645
CATALOG NUMBER: GALN-SA4D-740-U-T2R-GRSBK

Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 50-Deg Vertical

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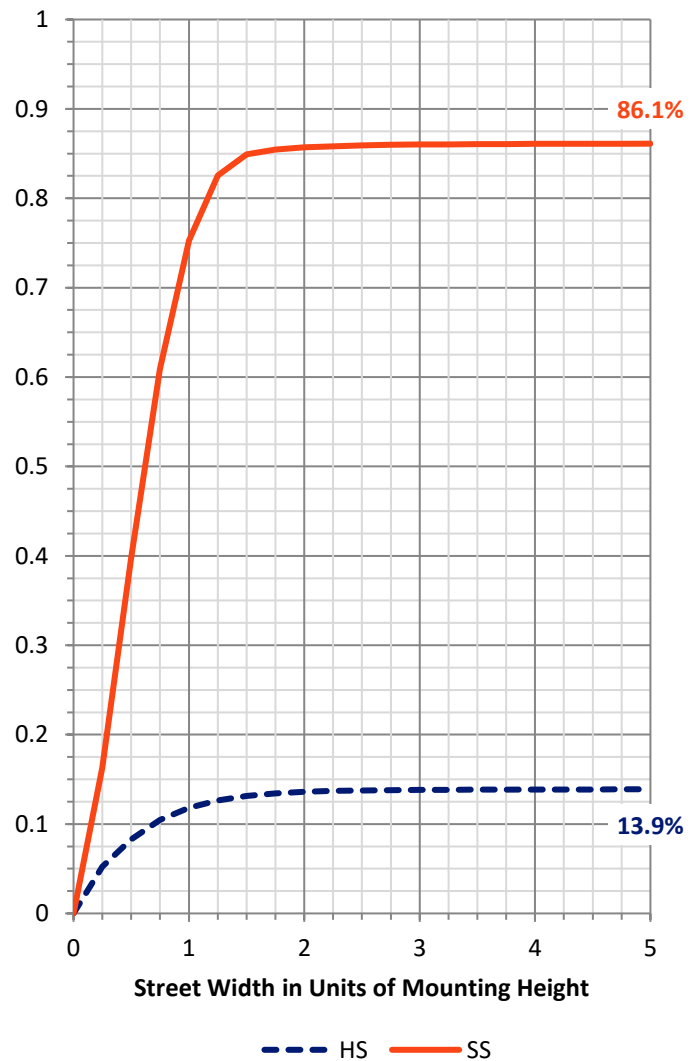
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2826.7	0.0	2826.7
	% Fixture	14.0	0.0	14.0
Street Side	Lumens	17413.3	0.0	17413.3
	% Fixture	86.0	0.0	86.0
Total	Lumens	20240.0	0.0	20240.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	272.6	1.3
10°-20°	1179.2	5.8
20°-30°	2473.9	12.2
30°-40°	4264.1	21.1
40°-50°	6231.9	30.8
50°-60°	4853.6	24.0
60°-70°	822.4	4.1
70°-80°	113.0	0.6
80°-90°	29.3	0.1
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°	20240.0	100.0
0°-180°	20240.0	100.0



REPORT NUMBER: P529645

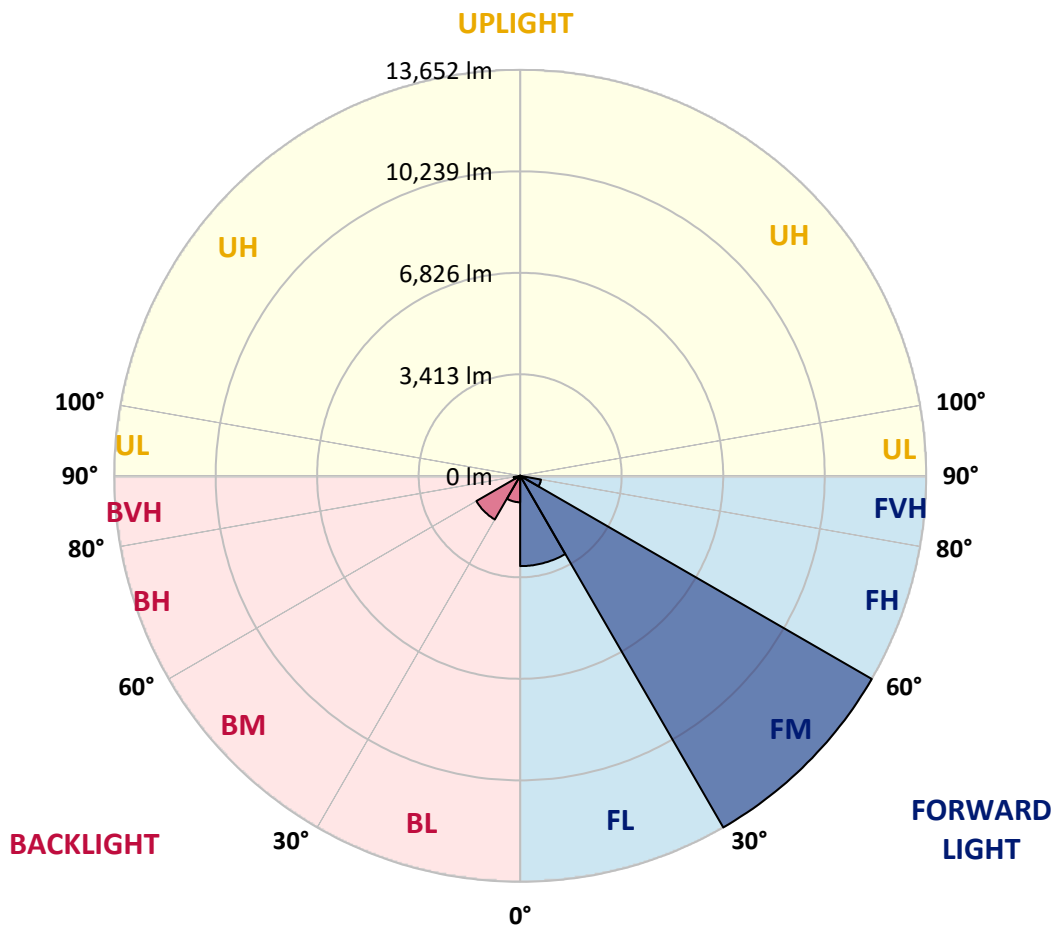
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3036.2	15.0			
FM (30°-60°)	13651.5	67.4			
FH (60°-80°)	712.0	3.5			G1/1800
FVH (80°-90°)	13.5	0.1			G1/100
BL (0°-30°)	889.5	4.4	B2/1000		
BM (30°-60°)	1698.2	8.4	B2/2500		
BH (60°-80°)	223.3	1.1	B1/500		G1/500
BVH (80°-90°)	15.7	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G1

Type I Short





REPORT NUMBER: P529645

CATALOG NUMBER: GALN-SA4D-740-U-T2R-GRSBK

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	2096.5	2096.5	2096.5	2096.5	2096.5	2096.5	2096.5	2096.5	2096.5	2096.5	2096.5
2.5°	2745.4	2725.4	2682.1	2602.3	2569.0	2489.1	2442.5	2352.7	2296.1	2232.9	2163.0
5°	3866.8	3763.7	3700.4	3610.6	3347.7	3184.6	2915.1	2685.5	2579.0	2462.5	2302.8
7.5°	5024.9	4958.3	4871.8	4678.8	4499.1	4159.7	3697.1	3191.3	2975.0	2775.3	2459.2
10°	5983.2	5796.9	5786.9	5643.8	5447.5	5041.5	4485.8	3856.8	3470.8	3178.0	2682.1
12.5°	6652.1	6482.4	6558.9	6542.3	6359.3	5986.6	5344.3	4512.4	4109.7	3653.8	2911.8
15°	7261.1	7191.2	7167.9	7147.9	7074.7	6798.5	6222.8	5311.0	4728.7	4179.6	3171.3
17.5°	7856.8	7677.1	7763.6	7780.2	7773.6	7524.0	6984.9	6069.8	5384.3	4735.3	3444.2
20°	8385.9	8402.5	8286.0	8262.7	8242.8	8232.8	7707.0	6821.8	6189.6	5317.7	3800.3
22.5°	9064.7	8948.2	9051.4	8984.9	8855.1	8775.2	8372.6	7487.4	6888.4	6019.9	4163.0
25°	9866.7	9959.9	9717.0	9690.3	9547.2	9271.0	8908.3	8232.8	7560.6	6672.1	4555.7
27.5°	10855.0	10692.0	10628.7	10482.3	10222.8	10106.3	9680.3	9001.5	8372.6	7357.6	4935.0
30°	11703.6	11660.3	11344.2	11171.2	10944.9	10941.6	10345.9	10043.1	9430.8	8432.4	5457.5
32.5°	12395.8	12206.1	12089.6	11969.8	11786.8	11836.7	11334.2	11174.5	10558.9	9430.8	6073.1
35°	12858.3	12721.9	12652.0	12469.0	12415.7	12638.7	12429.0	12362.5	11856.7	10835.1	6795.2
37.5°	13004.7	13048.0	13034.7	12805.1	12918.2	13520.5	13790.1	13617.0	13350.8	12315.9	7577.2
40°	13134.5	13164.5	13097.9	13367.5	13690.3	14375.8	15350.8	15064.6	14964.8	13816.7	8665.4
42.5°	13207.7	13184.4	13184.4	13650.3	14139.5	15517.2	16858.2	16668.6	16592.0	15414.0	9923.3
45°	12891.6	12665.3	12908.2	13540.5	14525.5	16079.6	18062.9	18325.8	18216.0	17314.1	11394.1
47.5°	11710.3	11850.0	11986.5	12831.7	14056.3	15906.5	18801.6	19696.8	19899.8	18911.4	12359.2
50°	9923.3	9893.3	10176.2	11241.0	12728.5	15161.1	18658.5	20092.8	20462.2	19390.6	12562.2
52.5°	7217.8	7437.5	7743.6	8801.8	10565.5	13231.0	16811.7	19071.2	19563.7	18801.6	12429.0
55°	4202.9	3960.0	4648.8	5544.0	7207.8	9979.8	14212.7	16904.8	17816.6	17730.1	11756.8
57.5°	1683.8	1630.6	1866.9	2515.8	3760.3	6186.2	10335.9	13889.9	15350.8	16239.3	10332.6
60°	738.8	722.1	848.6	1024.9	1537.4	2851.9	5653.8	8638.8	10162.9	11347.5	7111.3
62.5°	532.4	525.8	589.0	652.2	812.0	1241.2	2376.0	3480.8	4339.4	5241.2	3184.6
65°	429.3	445.9	489.2	522.5	599.0	688.8	838.6	968.4	1188.0	1231.3	702.1
67.5°	349.4	362.7	402.7	439.3	452.6	372.7	386.0	339.4	339.4	302.8	242.9
70°	256.2	259.6	306.2	349.4	279.5	149.7	262.9	262.9	236.3	226.3	206.3
72.5°	189.7	193.0	229.6	216.3	109.8	93.2	193.0	213.0	193.0	183.0	166.4
75°	139.8	143.1	119.8	49.9	46.6	59.9	113.1	146.4	139.8	136.4	126.5
77.5°	26.6	20.0	16.6	23.3	33.3	49.9	73.2	89.8	93.2	99.8	93.2
80°	3.3	3.3	10.0	20.0	36.6	53.2	76.5	86.5	89.8	93.2	86.5
82.5°	0.0	3.3	10.0	20.0	36.6	49.9	66.6	76.5	83.2	86.5	83.2
85°	0.0	3.3	6.7	16.6	29.9	36.6	33.3	23.3	20.0	23.3	16.6
87.5°	0.0	0.0	3.3	3.3	6.7	6.7	6.7	6.7	6.7	6.7	6.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P529645

CATALOG NUMBER: GALN-SA4D-740-U-T2R-GRSBK

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2096.5	2096.5	2096.5	2096.5	2096.5	2096.5	2096.5	2096.5	2096.5	2096.5	2096.5
2.5°	2123.1	2109.8	2063.2	2013.3	1970.0	1990.0	1970.0	1953.4	1960.0	1953.4	1946.7
5°	2239.6	2179.7	2079.8	2036.6	2000.0	1996.6	1986.7	1983.3	1986.7	1986.7	1956.7
7.5°	2349.4	2252.9	2146.4	2099.8	2056.5	2059.9	2036.6	2036.6	2033.2	2016.6	2009.9
10°	2515.8	2386.0	2249.5	2166.3	2113.1	2103.1	2079.8	2056.5	2056.5	2056.5	2023.3
12.5°	2698.8	2535.7	2349.4	2252.9	2189.6	2139.7	2103.1	2096.5	2059.9	2053.2	2036.6
15°	2858.5	2652.2	2415.9	2282.8	2203.0	2136.4	2079.8	2043.2	2026.6	2016.6	2003.3
17.5°	3014.9	2752.0	2452.5	2282.8	2196.3	2119.8	2059.9	2026.6	1986.7	1993.3	1966.7
20°	3224.6	2858.5	2462.5	2239.6	2133.1	2059.9	1980.0	1963.4	1940.1	1920.1	1926.8
22.5°	3427.6	2935.1	2432.6	2186.3	2033.2	1946.7	1906.8	1886.8	1876.8	1860.2	1836.9
25°	3610.6	3018.2	2386.0	2089.8	1926.8	1863.5	1826.9	1823.6	1800.3	1800.3	1757.0
27.5°	3796.9	3048.2	2306.1	1976.7	1833.6	1797.0	1780.3	1773.7	1763.7	1740.4	1710.4
30°	4009.9	3058.2	2189.6	1860.2	1750.4	1710.4	1733.7	1750.4	1707.1	1663.9	1677.2
32.5°	4186.3	3034.9	2049.9	1750.4	1690.5	1670.5	1717.1	1733.7	1683.8	1637.2	1613.9
35°	4399.2	2978.3	1913.4	1663.9	1630.6	1670.5	1710.4	1710.4	1610.6	1554.0	1540.7
37.5°	4722.0	2915.1	1787.0	1590.7	1567.4	1650.6	1703.8	1667.2	1510.8	1440.9	1424.3
40°	5068.1	2875.2	1663.9	1517.4	1534.1	1617.3	1647.2	1534.1	1374.3	1331.1	1317.8
42.5°	5570.6	2795.3	1554.0	1454.2	1504.1	1570.7	1570.7	1367.7	1307.8	1284.5	1281.2
45°	6196.2	2738.7	1457.5	1401.0	1460.9	1477.5	1424.3	1281.2	1237.9	1231.3	1234.6
47.5°	6502.4	2628.9	1357.7	1337.7	1381.0	1384.3	1244.6	1211.3	1174.7	1164.7	1158.0
50°	6455.8	2432.6	1227.9	1254.6	1314.5	1281.2	1134.8	1141.4	1108.1	1104.8	1088.2
52.5°	6129.7	2123.1	1098.1	1161.4	1227.9	1131.4	1044.9	1038.2	1038.2	995.0	978.4
55°	5434.2	1710.4	941.7	1021.6	1101.5	951.7	928.4	921.8	905.1	865.2	855.2
57.5°	4302.7	1254.6	708.8	795.3	935.1	808.6	805.3	775.4	732.1	702.1	702.1
60°	2559.0	722.1	445.9	485.8	619.0	655.6	728.8	715.5	642.3	595.7	582.4
62.5°	1168.0	372.7	282.9	289.5	332.8	425.9	572.4	662.2	559.1	479.2	472.5
65°	392.7	276.2	232.9	223.0	229.6	256.2	342.8	469.2	445.9	369.4	356.1
67.5°	239.6	246.3	219.6	203.0	203.0	199.7	196.3	213.0	262.9	256.2	259.6
70°	206.3	226.3	203.0	183.0	176.4	166.4	139.8	116.5	99.8	116.5	123.1
72.5°	166.4	179.7	173.0	156.4	139.8	126.5	99.8	76.5	56.6	49.9	49.9
75°	123.1	133.1	139.8	119.8	106.5	89.8	73.2	49.9	29.9	20.0	20.0
77.5°	89.8	99.8	103.2	93.2	79.9	63.2	46.6	33.3	16.6	6.7	6.7
80°	76.5	89.8	99.8	93.2	83.2	59.9	43.3	23.3	13.3	3.3	3.3
82.5°	73.2	89.8	99.8	89.8	79.9	56.6	43.3	26.6	10.0	3.3	3.3
85°	16.6	23.3	29.9	36.6	43.3	43.3	33.3	20.0	10.0	3.3	3.3
87.5°	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	3.3	3.3	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)