

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: P452999

Luminaire Tested: **GALN-SA4A-727-U-T4FT-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P452999
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-29)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4A-727-U-T4FT-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10895 lumens
Efficiency: N/A
Efficacy: 90.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

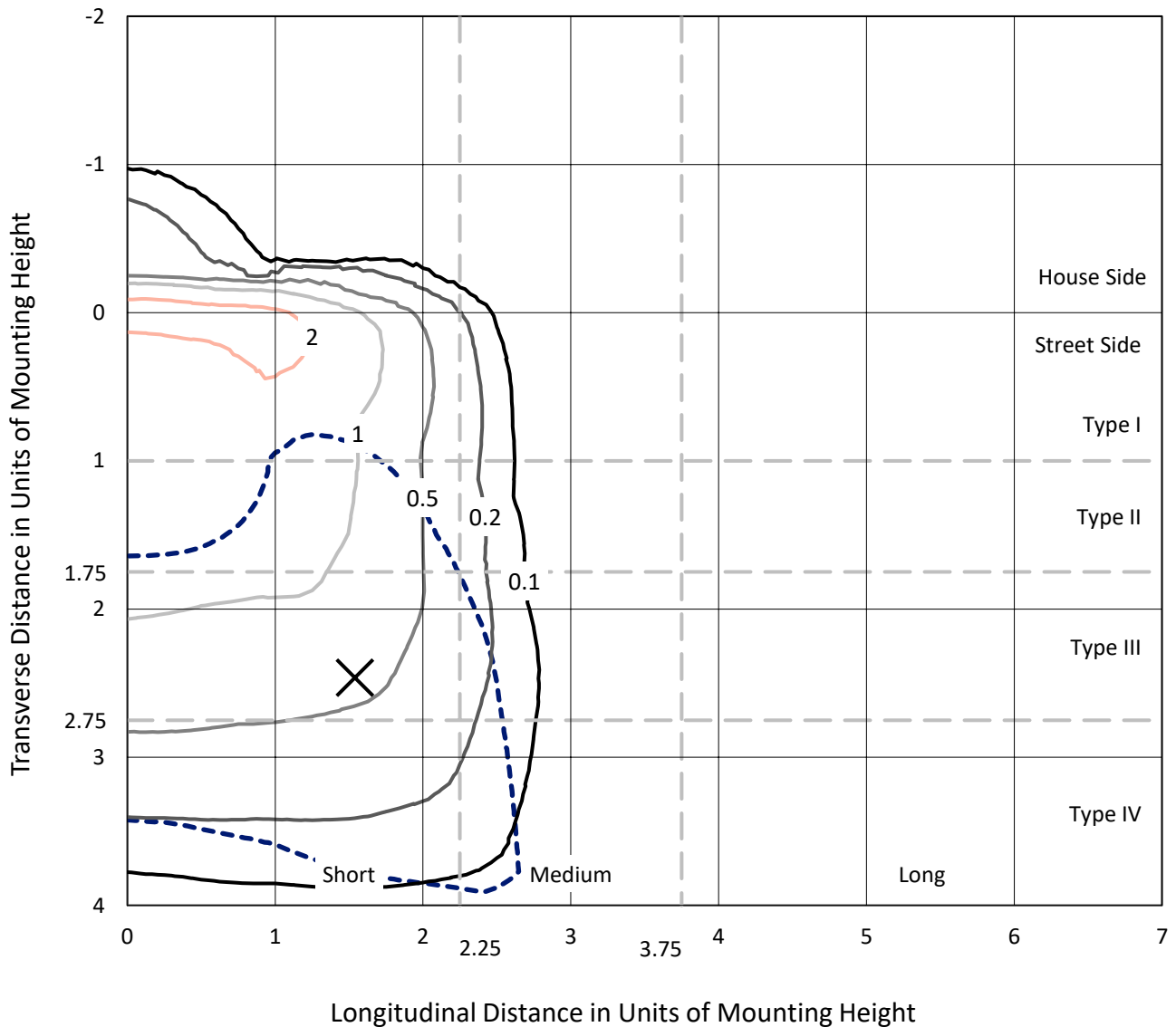
Input Watts (W): 121
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

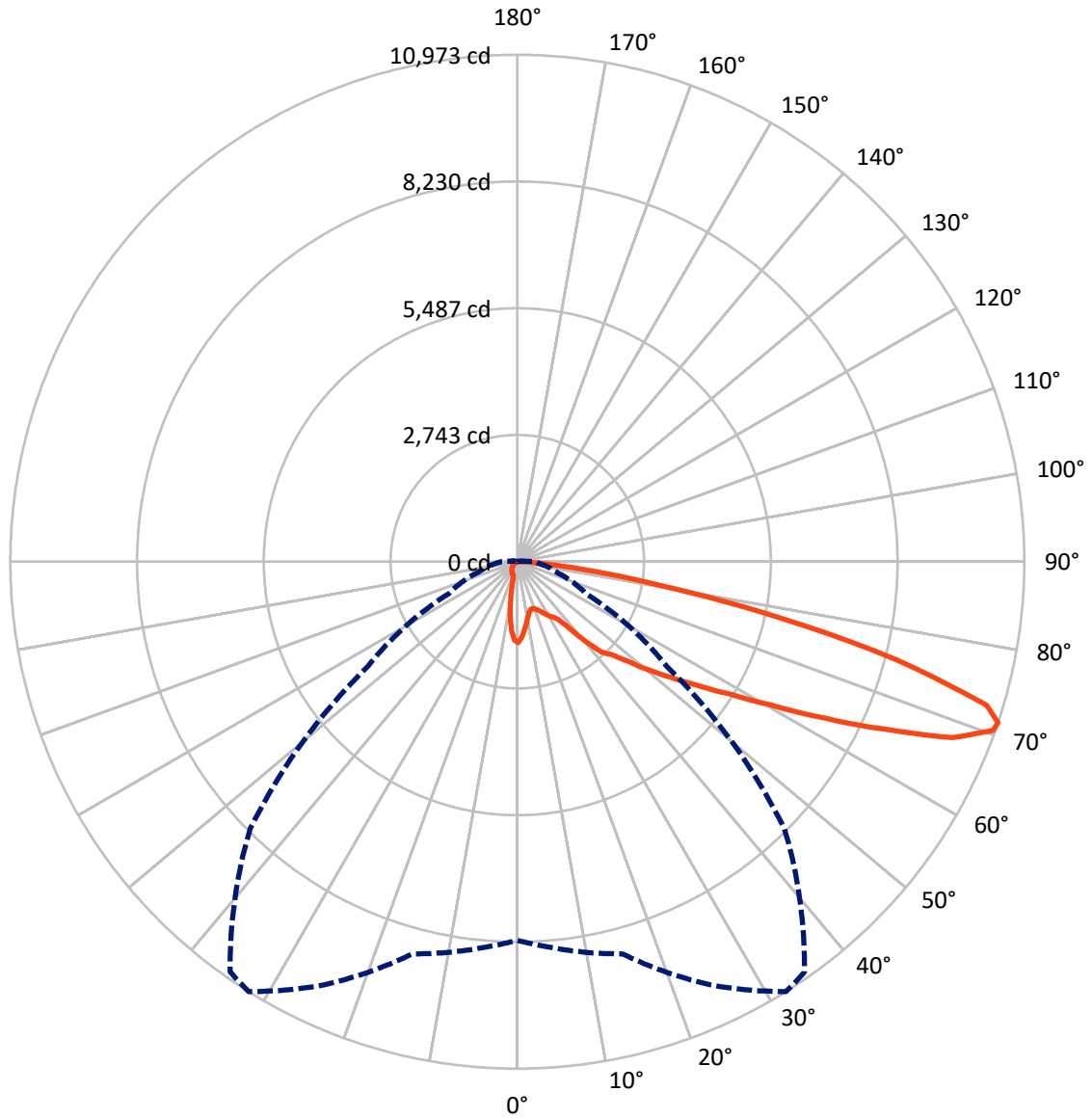
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	912.6	0.0	912.6
	% Fixture	8.4	0.0	8.4
Street Side	Lumens	9982.4	0.0	9982.4
	% Fixture	91.6	0.0	91.6
Total	Lumens	10895.0	0.0	10895.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.5	1.3
10°-20°	309.2	2.8
20°-30°	481.0	4.4
30°-40°	801.4	7.4
40°-50°	1490.7	13.7
50°-60°	2393.4	22.0
60°-70°	3219.2	29.5
70°-80°	1910.0	17.5
80°-90°	147.6	1.4
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°	10895.0	100.0
0°-180°	10895.0	100.0



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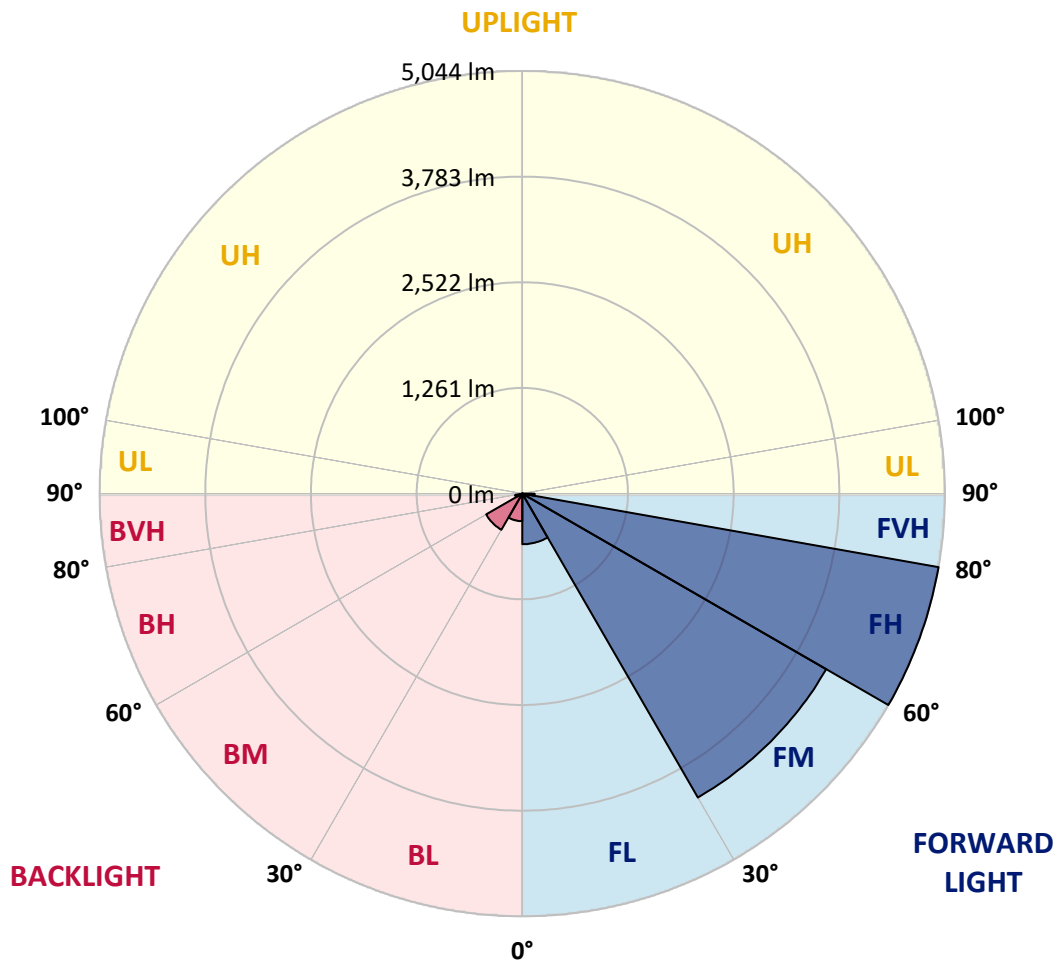
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	603.9	5.5			
FM (30°-60°)	4187.6	38.4			
FH (60°-80°)	5043.9	46.3			G3/7500
FVH (80°-90°)	147.1	1.3			G2/225
BL (0°-30°)	328.8	3.0	B1/500		
BM (30°-60°)	497.8	4.6	B1/1000		
BH (60°-80°)	85.3	0.8	B0/110		G0/110
BVH (80°-90°)	0.6	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	32°	35°	45°	55°	65°	75°	85°
0°	1752.1	1752.1	1752.1	1752.1	1752.1	1752.1	1752.1	1752.1	1752.1	1752.1	1752.1
2.5°	1625.0	1641.7	1639.2	1645.0	1659.3	1665.1	1681.0	1698.6	1722.8	1739.5	1750.4
5°	1455.2	1467.7	1469.4	1498.7	1512.9	1528.8	1575.6	1626.6	1683.5	1728.7	1758.8
7.5°	1273.7	1280.4	1293.8	1332.3	1368.2	1384.1	1455.2	1543.8	1633.3	1717.8	1772.2
10°	1124.0	1131.5	1155.8	1196.8	1230.2	1251.1	1349.8	1461.0	1586.5	1711.9	1791.4
12.5°	1038.7	1042.9	1052.1	1088.9	1131.5	1154.1	1260.3	1387.5	1548.9	1714.5	1824.0
15°	1032.9	1031.2	1020.3	1035.4	1073.8	1097.2	1201.0	1337.3	1515.4	1722.8	1862.5
17.5°	1063.8	1059.6	1033.7	1033.7	1065.5	1084.7	1175.9	1310.5	1498.7	1742.1	1916.8
20°	1111.5	1104.8	1062.1	1058.8	1089.7	1109.8	1190.9	1312.2	1502.0	1778.0	1989.6
22.5°	1171.7	1164.2	1099.8	1101.4	1134.9	1155.0	1234.4	1342.3	1522.9	1822.3	2067.4
25°	1250.3	1241.9	1165.8	1162.5	1197.6	1215.2	1298.8	1395.8	1552.2	1877.5	2169.4
27.5°	1354.8	1337.3	1246.1	1241.1	1278.7	1301.3	1376.6	1467.7	1604.1	1953.6	2306.6
30°	1441.0	1421.7	1334.8	1321.4	1361.5	1379.1	1456.9	1564.8	1706.1	2086.6	2496.4
32.5°	1553.9	1525.4	1423.4	1388.3	1430.9	1453.5	1573.1	1745.4	1857.5	2227.1	2722.2
35°	1808.1	1790.6	1665.9	1543.0	1540.5	1568.9	1744.6	1927.7	2013.0	2446.2	3030.0
37.5°	2171.9	2159.4	2027.2	1862.5	1814.8	1801.4	1952.8	2128.4	2261.4	2747.3	3387.9
40°	2594.3	2565.0	2443.7	2304.1	2242.2	2202.9	2198.7	2427.0	2585.9	3156.3	3760.9
42.5°	2897.0	2843.5	2696.3	2686.3	2672.9	2631.9	2513.1	2863.6	3004.9	3596.2	4159.8
45°	3214.8	3133.7	2914.6	2876.9	2871.9	2869.4	2988.2	3380.4	3461.5	4072.9	4569.6
47.5°	3461.5	3397.1	3217.3	3200.6	3221.5	3278.4	3616.2	3929.0	3912.3	4497.7	4913.4
50°	3790.2	3741.7	3541.8	3573.6	3681.5	3774.3	4324.6	4527.0	4282.8	4832.2	5163.4
52.5°	4178.2	4088.8	3903.1	3989.2	4154.8	4309.5	5076.5	5050.5	4542.9	5084.0	5349.9
55°	4514.4	4450.9	4387.3	4476.8	4724.4	4917.5	5755.5	5442.8	4731.9	5286.4	5431.9
57.5°	5083.1	5068.1	5002.9	5094.0	5394.3	5595.0	6363.5	5747.2	4853.2	5391.7	5335.7
60°	5924.5	5900.2	5779.0	5895.2	6286.6	6601.9	6923.9	6020.7	4880.8	5350.8	5058.9
62.5°	6936.4	6853.6	6749.9	6921.4	7458.3	7597.1	7451.6	6182.9	4777.9	5024.6	4391.5
65°	7881.5	7796.2	7798.7	8160.0	8744.5	8839.0	8067.1	6158.6	4476.8	4207.5	3239.1
67.5°	8604.9	8590.7	8692.7	9397.7	10162.1	10096.9	8617.4	5795.7	3584.5	2727.2	1721.1
70°	8641.7	8669.3	8962.0	10152.1	10928.2	10824.5	8570.6	4711.0	2234.6	1254.5	678.3
71°	8196.8	8382.4	8787.2	10128.6	10973.3	10838.7	8175.8	3945.7	1639.2	874.8	489.2
72.5°	6984.9	7082.8	7957.6	9532.4	10616.2	10328.5	7174.8	2765.7	1049.6	535.2	281.0
75°	3847.1	4087.9	5329.0	7478.4	8491.1	8238.6	4675.9	1313.9	523.5	292.7	116.2
77.5°	1831.5	1784.7	2600.1	4447.5	5757.2	5743.8	2355.9	583.7	305.3	198.2	58.5
80°	523.5	588.8	995.2	2114.2	3196.4	3231.5	904.9	281.8	211.6	154.7	30.1
82.5°	158.1	161.4	365.5	935.0	1589.8	1498.7	339.5	143.8	152.2	122.9	17.6
85°	27.6	34.3	107.9	329.5	606.3	460.0	85.3	68.6	100.4	81.1	10.0
87.5°	1.7	2.5	36.0	37.6	53.5	30.9	15.1	10.0	21.7	21.7	5.9
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1752.1	1752.1	1752.1	1752.1	1752.1	1752.1	1752.1	1752.1	1752.1	1752.1	1752.1
2.5°	1757.9	1763.0	1759.6	1752.1	1739.5	1724.5	1704.4	1687.7	1673.5	1665.9	1675.1
5°	1768.8	1775.5	1758.8	1721.1	1664.3	1602.4	1532.1	1477.8	1435.1	1421.7	1416.7
7.5°	1785.5	1789.7	1744.6	1660.9	1540.5	1394.1	1266.2	1158.3	1074.7	1049.6	1012.8
10°	1807.3	1804.8	1719.5	1563.9	1352.3	1132.4	934.2	787.0	675.7	635.6	632.3
12.5°	1840.7	1827.4	1687.7	1431.8	1128.2	840.5	595.5	465.8	395.6	372.2	367.1
15°	1882.6	1850.8	1637.5	1277.1	863.9	542.8	367.1	327.8	318.6	317.0	315.3
17.5°	1931.9	1881.7	1571.4	1087.2	607.2	352.1	306.9	306.1	306.9	305.3	304.4
20°	1998.8	1914.3	1492.8	862.2	401.4	296.9	292.7	292.7	293.5	292.7	292.7
22.5°	2069.9	1952.8	1395.8	658.2	302.7	281.8	281.0	282.7	284.3	283.5	283.5
25°	2157.7	2003.0	1267.9	450.8	271.0	269.3	270.1	273.5	276.8	277.7	276.8
27.5°	2284.8	2064.9	1130.7	310.3	248.4	250.1	258.4	266.8	271.8	272.6	272.6
30°	2427.8	2133.4	951.7	251.7	230.0	230.0	240.0	255.9	266.8	268.5	269.3
32.5°	2611.8	2212.9	753.5	226.6	212.4	210.8	220.0	239.2	259.3	265.1	265.1
35°	2839.3	2306.6	560.3	210.8	199.9	195.7	200.7	216.6	242.5	259.3	260.9
37.5°	3106.1	2395.2	409.8	196.5	188.2	182.3	185.7	198.2	219.1	244.2	250.9
40°	3352.8	2473.8	306.1	184.8	176.5	172.3	174.8	180.6	198.2	221.6	225.8
42.5°	3622.1	2534.9	243.4	172.3	164.8	163.1	163.1	165.6	177.3	190.7	191.5
45°	3890.6	2556.6	204.1	157.2	152.2	153.9	153.0	151.4	156.4	154.7	154.7
47.5°	4082.1	2530.7	168.9	143.0	143.0	145.5	141.3	135.5	133.0	122.9	123.8
50°	4213.4	2436.2	138.8	126.3	133.0	136.3	128.0	118.8	109.6	98.7	96.2
52.5°	4267.7	2268.1	113.7	104.5	117.9	122.1	112.1	101.2	87.0	77.8	75.3
55°	4232.6	2060.7	94.5	85.3	99.5	104.5	94.5	82.0	66.1	56.0	54.4
57.5°	4077.9	1813.1	80.3	67.7	79.5	82.8	76.1	62.7	46.8	36.8	36.8
60°	3810.3	1557.2	65.2	53.5	59.4	64.4	57.7	45.2	31.8	22.6	20.9
62.5°	3267.5	1264.5	52.7	41.8	41.8	46.0	40.1	32.6	20.1	11.7	10.9
65°	2359.3	867.3	41.8	30.9	30.1	30.1	25.1	21.7	11.7	5.0	3.3
67.5°	1282.1	489.2	33.5	23.4	20.9	20.1	15.9	12.5	5.0	0.8	0.0
70°	504.3	188.2	25.9	15.9	13.4	12.5	8.4	5.9	3.3	0.0	0.0
71°	342.1	129.6	22.6	13.4	10.9	9.2	6.7	5.0	2.5	0.0	0.0
72.5°	195.7	80.3	17.6	10.0	8.4	6.7	5.0	3.3	2.5	0.0	0.0
75°	85.3	41.0	10.9	7.5	5.9	4.2	3.3	2.5	0.8	0.0	0.0
77.5°	43.5	22.6	7.5	5.9	3.3	2.5	1.7	0.8	0.0	0.0	0.0
80°	24.3	11.7	5.0	3.3	2.5	1.7	0.8	0.8	0.0	0.0	0.0
82.5°	13.4	6.7	2.5	1.7	0.8	0.0	0.0	0.0	0.0	0.0	0.0
85°	8.4	4.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.2	1.7	0.0	0.0	0.0	0.0	0.8	0.8	0.0	0.0	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)