

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: P453144

Luminaire Tested: **GALN-SA4A-827-U-T4FT-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453144  
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-827-U-T4FT-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 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: 9576 lumens  
Efficiency: N/A  
Efficacy: 79.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

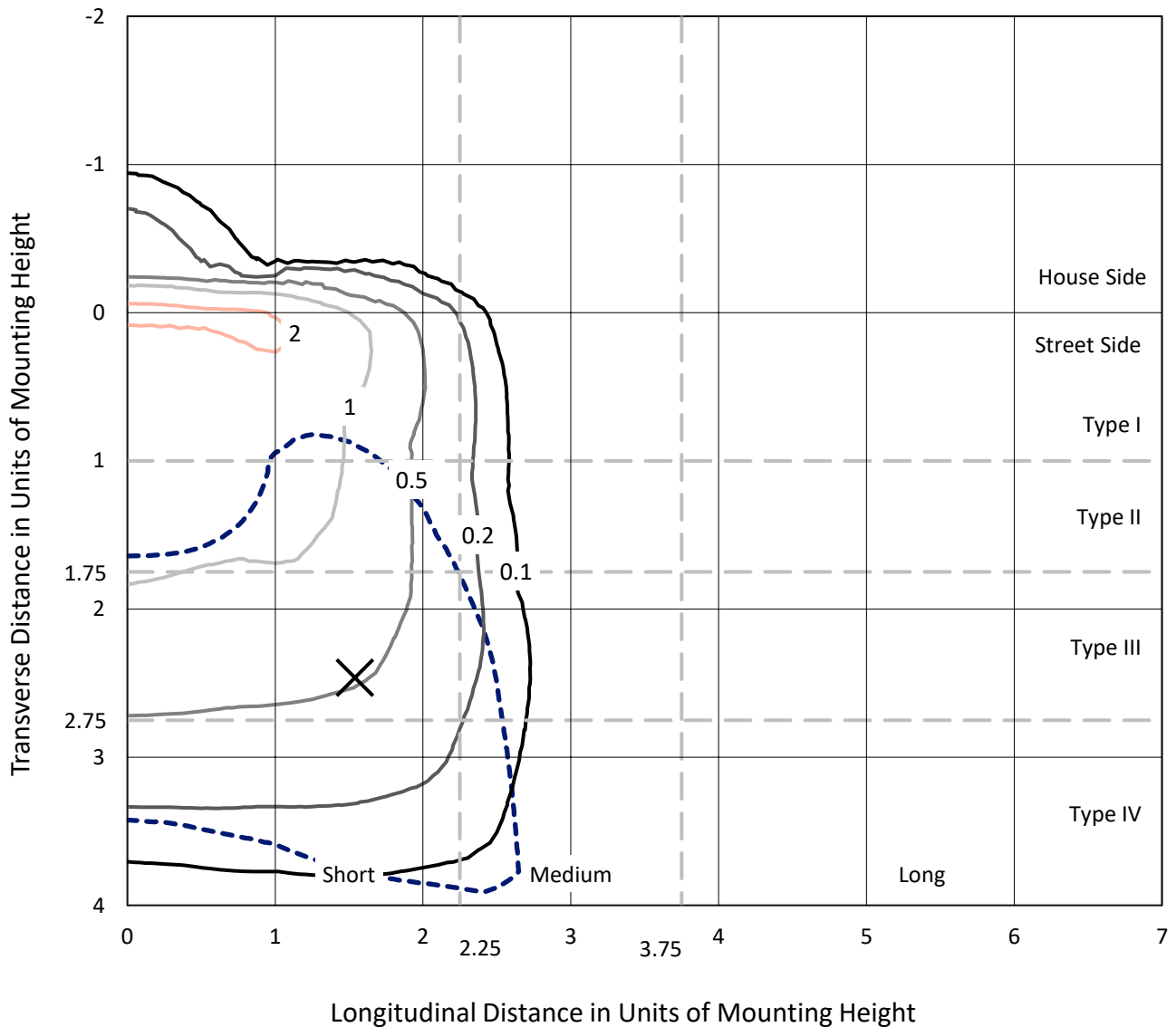
Input Watts (W): 121  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

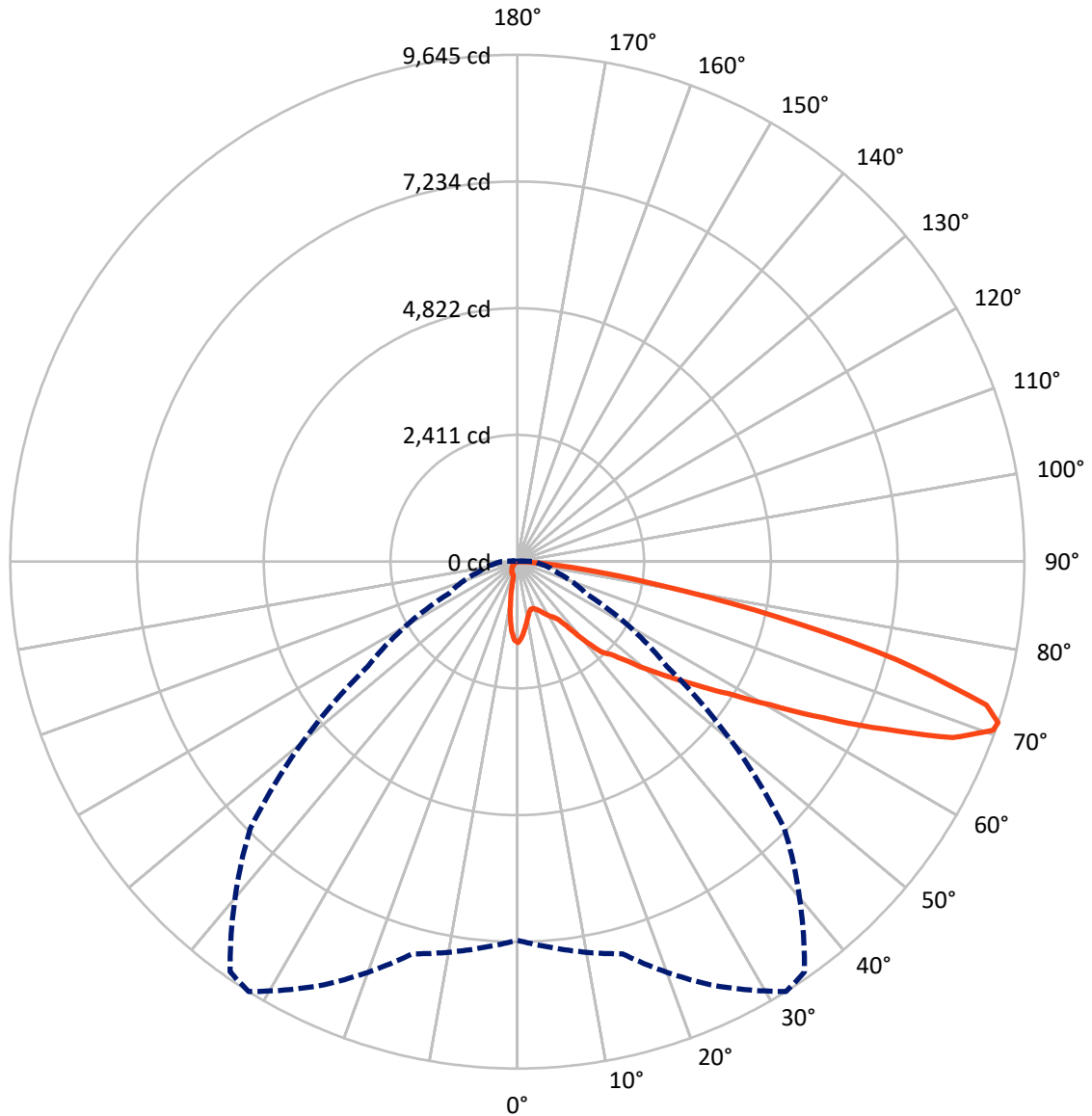
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 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
<b>House Side</b>	Lumens	802.1	0.0	802.1
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	8773.9	0.0	8773.9
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	9576.0	0.0	9576.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	125.2	1.3
10°-20°	271.8	2.8
20°-30°	422.8	4.4
30°-40°	704.4	7.4
40°-50°	1310.2	13.7
50°-60°	2103.6	22.0
60°-70°	2829.5	29.5
70°-80°	1678.8	17.5
80°-90°	129.8	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°	9576.0	100.0
0°-180°	9576.0	100.0

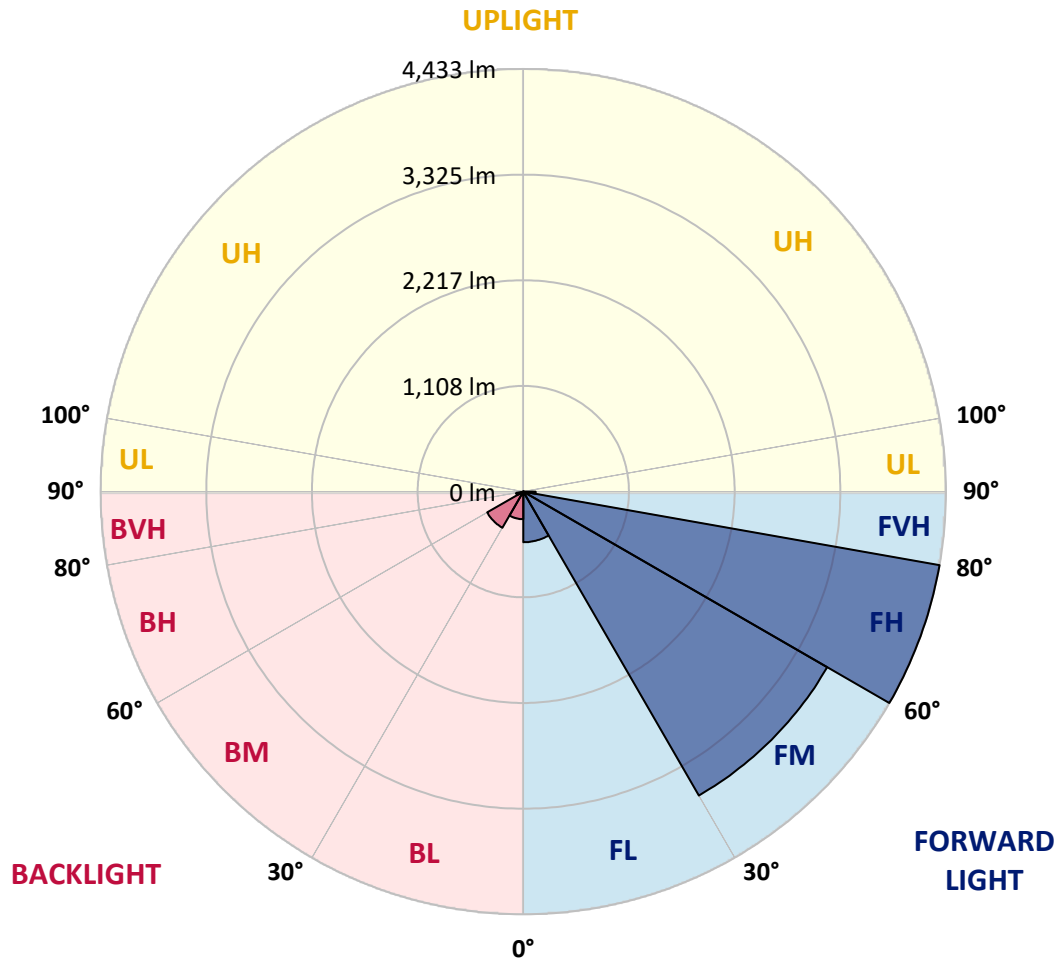


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	530.8	5.5			
FM (30°-60°)	3680.7	38.4			
FH (60°-80°)	4433.2	46.3			G2/5000
FVH (80°-90°)	129.3	1.3			G2/225
BL (0°-30°)	289.0	3.0	B1/500		
BM (30°-60°)	437.6	4.6	B1/1000		
BH (60°-80°)	75.0	0.8	B0/110		G0/110
BVH (80°-90°)	0.5	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-G2**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	32°	35°	45°	55°	65°	75°	85°
0°	1540.0	1540.0	1540.0	1540.0	1540.0	1540.0	1540.0	1540.0	1540.0	1540.0	1540.0
2.5°	1428.2	1442.9	1440.7	1445.9	1458.4	1463.5	1477.5	1492.9	1514.2	1528.9	1538.5
5°	1279.0	1290.0	1291.5	1317.2	1329.7	1343.7	1384.9	1429.7	1479.7	1519.4	1545.9
7.5°	1119.5	1125.4	1137.2	1171.0	1202.6	1216.5	1279.0	1356.9	1435.6	1509.8	1557.6
10°	987.9	994.5	1015.9	1051.9	1081.3	1099.7	1186.4	1284.2	1394.4	1504.7	1574.5
12.5°	913.0	916.6	924.7	957.1	994.5	1014.4	1107.7	1219.5	1361.3	1506.9	1603.2
15°	907.8	906.3	896.8	910.0	943.8	964.4	1055.6	1175.4	1331.9	1514.2	1637.0
17.5°	935.0	931.3	908.5	908.5	936.5	953.4	1033.5	1151.9	1317.2	1531.1	1684.8
20°	976.9	971.0	933.5	930.6	957.8	975.4	1046.7	1153.3	1320.2	1562.8	1748.7
22.5°	1029.8	1023.2	966.6	968.1	997.5	1015.1	1085.0	1179.8	1338.6	1601.7	1817.1
25°	1098.9	1091.6	1024.7	1021.7	1052.6	1068.1	1141.6	1226.8	1364.3	1650.2	1906.8
27.5°	1190.8	1175.4	1095.3	1090.8	1123.9	1143.8	1209.9	1290.0	1409.9	1717.1	2027.3
30°	1266.5	1249.6	1173.2	1161.4	1196.7	1212.1	1280.5	1375.3	1499.5	1834.0	2194.2
32.5°	1365.8	1340.8	1251.1	1220.2	1257.7	1277.6	1382.7	1534.1	1632.6	1957.5	2392.7
35°	1589.2	1573.8	1464.3	1356.2	1354.0	1379.0	1533.4	1694.3	1769.3	2150.1	2663.2
37.5°	1909.0	1897.9	1781.8	1637.0	1595.1	1583.3	1716.4	1870.8	1987.6	2414.7	2977.8
40°	2280.2	2254.5	2147.9	2025.1	1970.7	1936.2	1932.5	2133.2	2272.8	2774.2	3305.6
42.5°	2546.3	2499.2	2369.9	2361.0	2349.3	2313.3	2208.9	2516.9	2641.1	3160.8	3656.2
45°	2825.6	2754.3	2561.7	2528.6	2524.2	2522.0	2626.4	2971.2	3042.5	3579.8	4016.4
47.5°	3042.5	2985.9	2827.8	2813.1	2831.5	2881.5	3178.4	3453.4	3438.7	3953.2	4318.5
50°	3331.3	3288.7	3113.0	3141.0	3235.8	3317.4	3801.0	3978.9	3764.3	4247.2	4538.3
52.5°	3672.4	3593.8	3430.6	3506.3	3651.8	3787.8	4461.9	4439.1	3992.9	4468.5	4702.2
55°	3967.9	3912.0	3856.2	3934.8	4152.4	4322.2	5058.7	4783.8	4159.0	4646.4	4774.3
57.5°	4467.8	4454.5	4397.2	4477.3	4741.2	4917.6	5593.1	5051.4	4265.6	4739.0	4689.7
60°	5207.2	5185.9	5079.3	5181.5	5525.5	5802.6	6085.6	5291.8	4289.9	4703.0	4446.4
62.5°	6096.7	6023.9	5932.7	6083.4	6555.3	6677.4	6549.5	5434.4	4199.5	4416.3	3859.8
65°	6927.3	6852.3	6854.5	7172.1	7685.9	7768.9	7090.5	5413.1	3934.8	3698.1	2846.9
67.5°	7563.1	7550.6	7640.3	8260.0	8931.8	8874.5	7574.2	5094.0	3150.5	2397.1	1512.8
70°	7595.5	7619.7	7877.0	8923.0	9605.2	9514.0	7533.0	4140.6	1964.1	1102.6	596.1
71°	7204.4	7367.6	7723.4	8902.4	9644.8	9526.5	7186.0	3468.1	1440.7	768.9	430.0
72.5°	6139.3	6225.3	6994.2	8378.3	9331.0	9078.1	6306.2	2430.9	922.5	470.4	247.0
75°	3381.3	3593.0	4683.9	6573.0	7463.2	7241.2	4109.8	1154.8	460.2	257.3	102.2
77.5°	1609.8	1568.6	2285.3	3909.1	5060.2	5048.5	2070.7	513.1	268.3	174.2	51.5
80°	460.2	517.5	874.7	1858.3	2809.4	2840.3	795.3	247.7	186.0	136.0	26.5
82.5°	138.9	141.9	321.2	821.8	1397.4	1317.2	298.4	126.4	133.8	108.1	15.4
85°	24.3	30.1	94.8	289.6	532.9	404.3	75.0	60.3	88.2	71.3	8.8
87.5°	1.5	2.2	31.6	33.1	47.0	27.2	13.2	8.8	19.1	19.1	5.1
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°	1540.0	1540.0	1540.0	1540.0	1540.0	1540.0	1540.0	1540.0	1540.0	1540.0	1540.0
2.5°	1545.1	1549.5	1546.6	1540.0	1528.9	1515.7	1498.1	1483.4	1470.9	1464.3	1472.3
5°	1554.7	1560.6	1545.9	1512.8	1462.8	1408.4	1346.6	1298.9	1261.4	1249.6	1245.2
7.5°	1569.4	1573.0	1533.4	1459.8	1354.0	1225.4	1112.9	1018.1	944.6	922.5	890.2
10°	1588.5	1586.3	1511.3	1374.6	1188.6	995.3	821.1	691.7	593.9	558.7	555.7
12.5°	1617.9	1606.1	1483.4	1258.4	991.6	738.7	523.4	409.4	347.7	327.1	322.7
15°	1654.6	1626.7	1439.3	1122.5	759.3	477.1	322.7	288.1	280.1	278.6	277.1
17.5°	1698.0	1653.9	1381.2	955.6	533.7	309.5	269.8	269.0	269.8	268.3	267.6
20°	1756.8	1682.6	1312.1	757.9	352.8	260.9	257.3	257.3	258.0	257.3	257.3
22.5°	1819.3	1716.4	1226.8	578.5	266.1	247.7	247.0	248.5	249.9	249.2	249.2
25°	1896.5	1760.5	1114.4	396.2	238.2	236.7	237.4	240.4	243.3	244.0	243.3
27.5°	2008.2	1814.9	993.8	272.7	218.3	219.8	227.1	234.5	238.9	239.6	239.6
30°	2133.9	1875.2	836.5	221.3	202.1	202.1	211.0	224.9	234.5	236.0	236.7
32.5°	2295.6	1945.0	662.3	199.2	186.7	185.2	193.3	210.2	227.9	233.0	233.0
35°	2495.6	2027.3	492.5	185.2	175.7	172.0	176.4	190.4	213.2	227.9	229.3
37.5°	2730.0	2105.2	360.2	172.7	165.4	160.2	163.2	174.2	192.6	214.6	220.5
40°	2946.9	2174.3	269.0	162.5	155.1	151.4	153.6	158.8	174.2	194.8	198.5
42.5°	3183.6	2228.0	213.9	151.4	144.8	143.3	143.3	145.5	155.8	167.6	168.3
45°	3419.5	2247.1	179.4	138.2	133.8	135.3	134.5	133.0	137.5	136.0	136.0
47.5°	3587.9	2224.3	148.5	125.7	125.7	127.9	124.2	119.1	116.9	108.1	108.8
50°	3703.3	2141.3	122.0	111.0	116.9	119.8	112.5	104.4	96.3	86.7	84.5
52.5°	3751.1	1993.5	100.0	91.9	103.6	107.3	98.5	88.9	76.4	68.4	66.2
55°	3720.2	1811.2	83.1	75.0	87.5	91.9	83.1	72.0	58.1	49.2	47.8
57.5°	3584.2	1593.6	70.6	59.5	69.8	72.8	66.9	55.1	41.2	32.3	32.3
60°	3349.0	1368.7	57.3	47.0	52.2	56.6	50.7	39.7	27.9	19.8	18.4
62.5°	2871.9	1111.4	46.3	36.8	36.8	40.4	35.3	28.7	17.6	10.3	9.6
65°	2073.6	762.3	36.8	27.2	26.5	26.5	22.1	19.1	10.3	4.4	2.9
67.5°	1126.9	430.0	29.4	20.6	18.4	17.6	14.0	11.0	4.4	0.7	0.0
70°	443.2	165.4	22.8	14.0	11.8	11.0	7.4	5.1	2.9	0.0	0.0
71°	300.6	113.9	19.8	11.8	9.6	8.1	5.9	4.4	2.2	0.0	0.0
72.5°	172.0	70.6	15.4	8.8	7.4	5.9	4.4	2.9	2.2	0.0	0.0
75°	75.0	36.0	9.6	6.6	5.1	3.7	2.9	2.2	0.7	0.0	0.0
77.5°	38.2	19.8	6.6	5.1	2.9	2.2	1.5	0.7	0.0	0.0	0.0
80°	21.3	10.3	4.4	2.9	2.2	1.5	0.7	0.7	0.0	0.0	0.0
82.5°	11.8	5.9	2.2	1.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.4	3.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.7	1.5	0.0	0.0	0.0	0.0	0.7	0.7	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)