

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: STREETWORKS

Report Number: P214607

Luminaire Tested: **ARCH-AF24-80-D-U-T2R-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214607  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF24-80-D-U-T2R-7050  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9209 lumens  
Efficiency: N/A  
Efficacy: 111.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

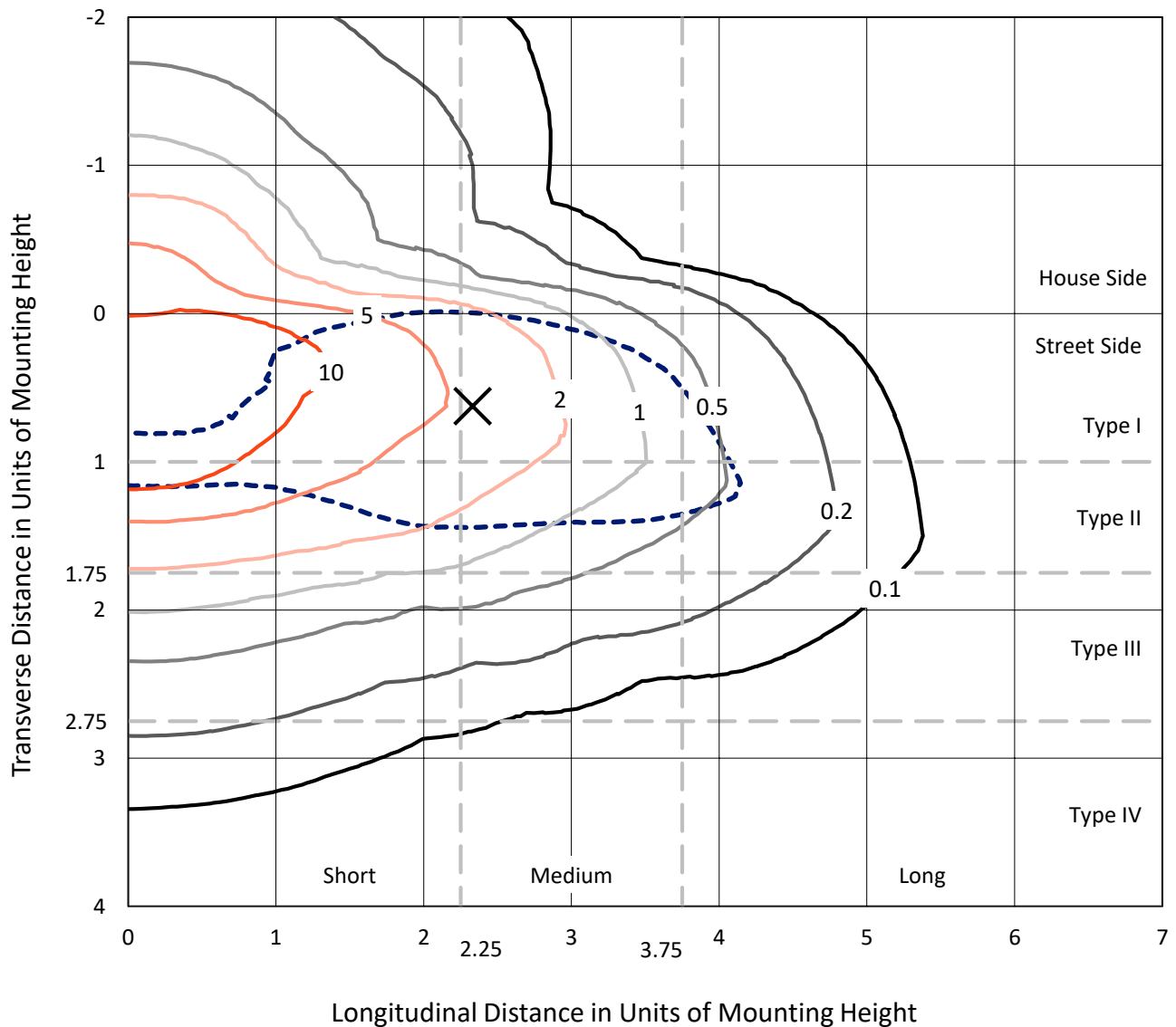
Input Watts (W): 83  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

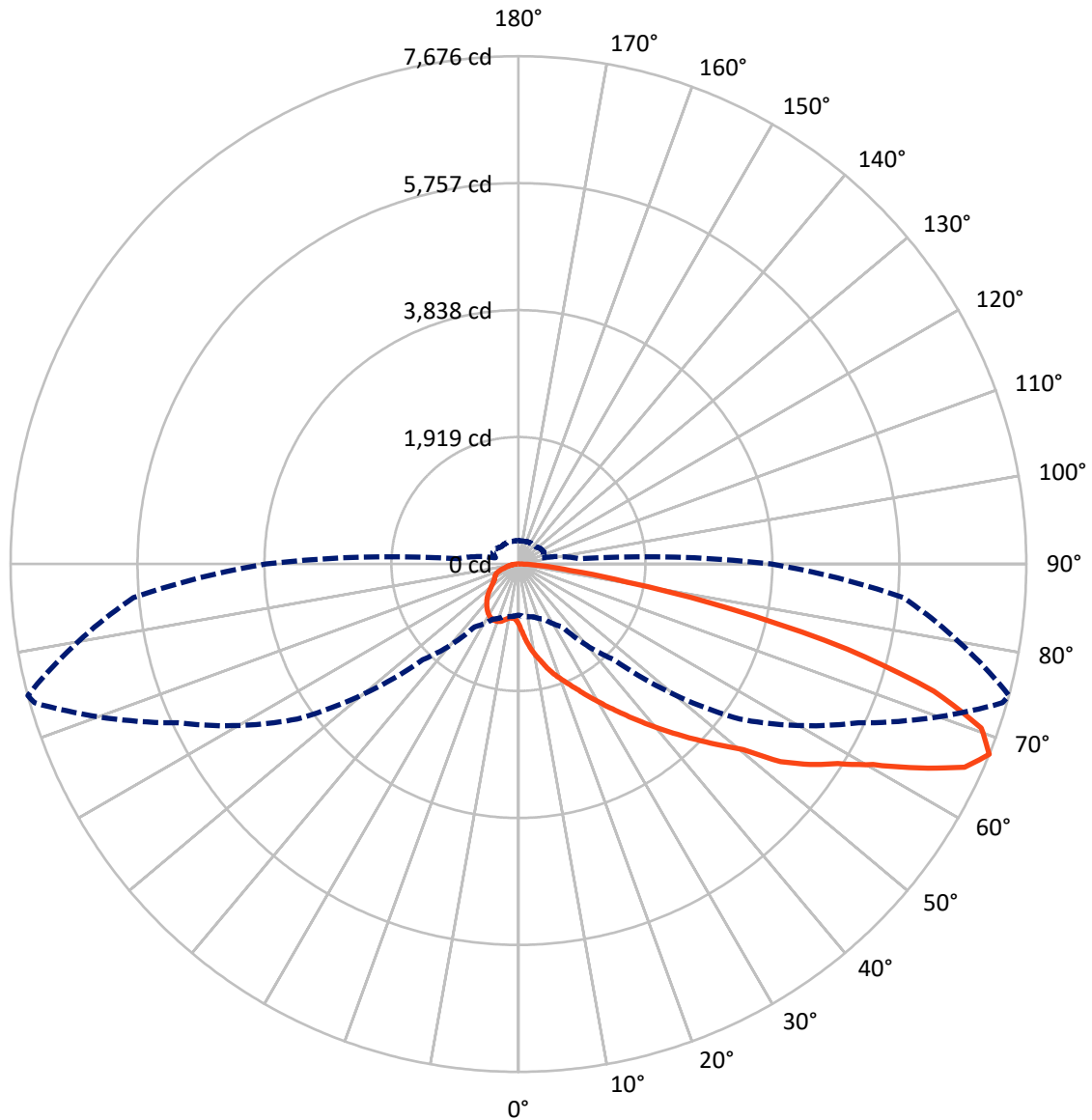
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 19.1 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1572.6	0.0	1572.6
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	7636.4	0.0	7636.4
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	9209.0	0.0	9209.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.2	1.2
10°-20°	387.4	4.2
20°-30°	706.6	7.7
30°-40°	1159.8	12.6
40°-50°	1677.3	18.2
50°-60°	1976.7	21.5
60°-70°	1920.9	20.9
70°-80°	1067.7	11.6
80°-90°	205.3	2.2
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°	9209.0	100.0
0°-180°	9209.0	100.0



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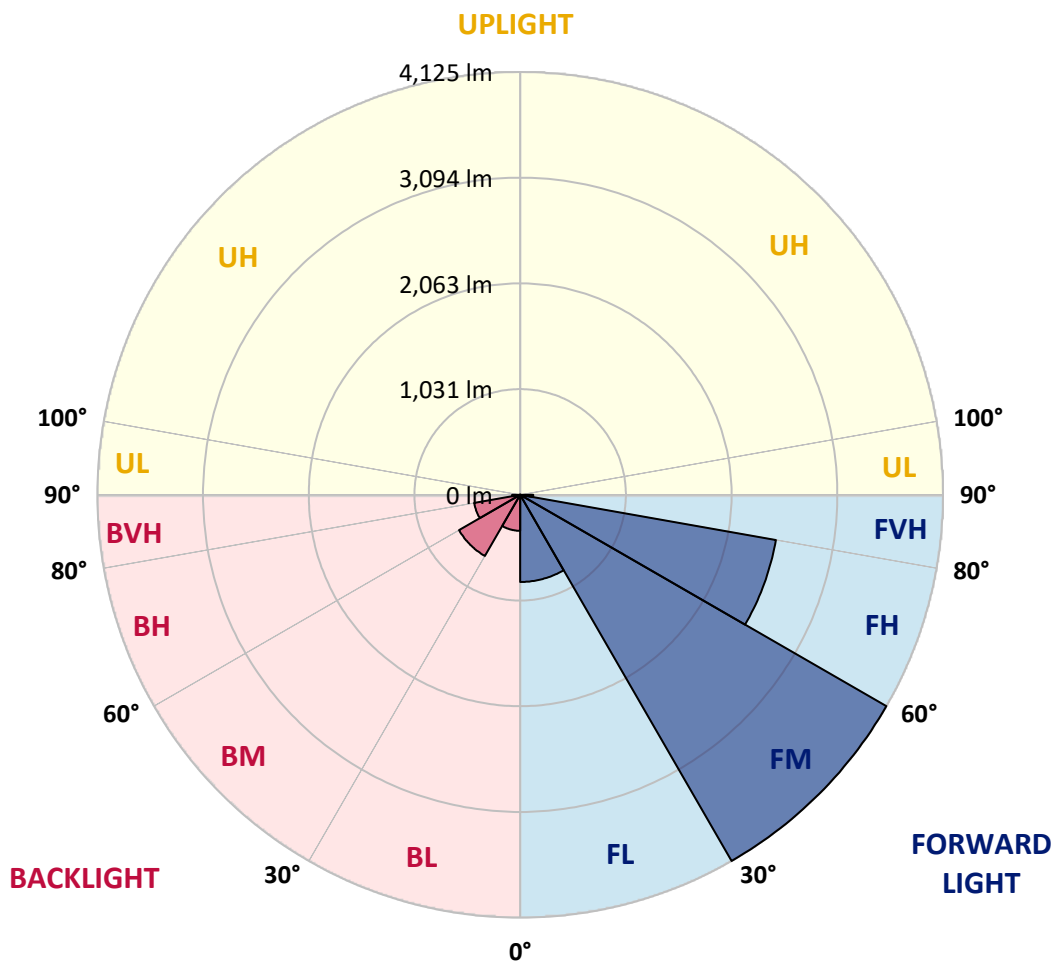
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	850.2	9.2			
FM	(30°-60°)	4125.1	44.8			
FH	(60°-80°)	2533.3	27.5			G2/5000
FVH	(80°-90°)	127.8	1.4			G2/225
BL	(0°-30°)	351.0	3.8	B1/500		
BM	(30°-60°)	688.7	7.5	B1/1000		
BH	(60°-80°)	455.3	4.9	B1/500		G1/500
BVH	(80°-90°)	77.5	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	912.5	912.5	912.5	912.5	912.5	912.5	912.5	912.5	912.5	912.5	912.5
2.5°	1293.7	1297.6	1289.9	1272.5	1247.5	1201.3	1160.9	1089.6	1026.1	1018.4	951.0
5°	1520.9	1524.7	1515.1	1493.9	1467.0	1416.9	1361.1	1268.7	1166.6	1147.4	1004.9
7.5°	1676.8	1678.7	1667.2	1646.0	1624.8	1574.8	1518.9	1415.0	1289.9	1274.5	1074.2
10°	1809.6	1813.5	1798.1	1784.6	1761.5	1711.5	1653.7	1544.0	1415.0	1393.8	1145.5
12.5°	1932.9	1936.7	1927.1	1915.5	1907.8	1861.6	1798.1	1667.2	1528.6	1505.5	1230.2
15°	2015.6	2019.5	2021.4	2036.8	2046.4	2013.7	1950.2	1807.7	1651.8	1630.6	1330.3
17.5°	1992.5	2002.2	2031.0	2086.9	2146.5	2148.5	2096.5	1946.3	1773.1	1750.0	1432.3
20°	1925.2	1932.9	1967.5	2052.2	2169.6	2237.0	2233.2	2086.9	1886.6	1861.6	1526.6
22.5°	1981.0	1990.6	1990.6	2042.6	2158.1	2283.2	2333.3	2225.5	2000.2	1977.1	1621.0
25°	2219.7	2225.5	2185.0	2163.9	2206.2	2321.7	2416.1	2375.6	2138.8	2111.9	1723.0
27.5°	2552.8	2543.1	2493.1	2408.4	2362.2	2393.0	2489.2	2518.1	2298.6	2265.9	1828.9
30°	2883.9	2878.1	2820.3	2706.8	2602.8	2537.3	2570.1	2645.2	2471.9	2433.4	1930.9
32.5°	3193.8	3184.2	3120.7	2987.8	2870.4	2749.1	2685.6	2760.7	2656.7	2612.4	2044.5
35°	3478.7	3453.7	3390.2	3251.6	3130.3	3014.8	2858.8	2870.4	2856.9	2810.7	2169.6
37.5°	3709.8	3690.5	3621.2	3492.2	3363.2	3253.5	3089.9	2995.5	3072.5	3028.3	2314.0
40°	3913.8	3892.7	3821.4	3692.4	3573.1	3469.1	3340.1	3147.6	3315.1	3265.1	2475.7
42.5°	4067.8	4052.4	3994.7	3867.6	3752.1	3657.8	3594.3	3340.1	3567.3	3519.2	2652.9
45°	4150.6	4135.2	4104.4	4002.4	3896.5	3823.4	3829.1	3569.2	3831.1	3790.6	2862.7
47.5°	4048.6	4060.1	4087.1	4067.8	4002.4	3967.7	4039.0	3806.0	4125.6	4087.1	3089.9
50°	3775.2	3786.8	3894.6	4027.4	4050.5	4092.9	4227.6	4079.4	4437.5	4406.7	3370.9
52.5°	3103.3	3166.9	3465.3	3782.9	4000.5	4175.7	4437.5	4485.6	4963.0	4963.0	3867.6
55°	2344.8	2400.7	2741.4	3295.9	3806.0	4183.4	4591.5	4760.9	5342.3	5350.0	4127.5
57.5°	1900.1	1934.8	2102.3	2670.2	3397.9	4087.1	4774.4	4997.7	5658.0	5692.7	4462.5
60°	1542.0	1561.3	1671.0	2065.7	2833.8	3827.2	4905.3	5336.5	6108.5	6156.6	4889.9
62.5°	1239.8	1259.0	1332.2	1569.0	2223.5	3340.1	4882.2	5688.8	6709.2	6788.1	5450.1
65°	989.5	1010.7	1058.8	1205.1	1647.9	2735.6	4645.4	5869.8	7331.0	7408.0	5821.7
67.5°	772.0	791.2	824.0	920.2	1160.9	2046.4	4085.2	5679.2	7610.1	7675.6	5840.9
70°	583.3	592.9	619.9	681.5	829.7	1359.2	3197.7	5040.0	7359.9	7419.5	5455.9
72.5°	452.4	450.5	465.9	496.7	579.5	935.6	2119.6	4098.6	6507.0	6568.6	4655.0
75°	369.6	367.7	377.3	387.0	419.7	627.6	1251.3	3086.0	5251.8	5134.4	3492.2
77.5°	311.9	309.9	319.6	321.5	335.0	433.2	712.3	2031.0	3503.8	3301.6	1967.5
80°	263.7	261.8	273.4	277.2	286.8	317.6	410.1	1099.3	1759.6	1667.2	939.5
82.5°	198.3	206.0	227.2	236.8	248.3	234.9	254.1	485.1	816.3	779.7	408.1
85°	96.3	113.6	171.3	190.6	204.1	148.2	173.3	229.1	367.7	350.4	165.6
87.5°	32.7	28.9	102.0	121.3	132.8	67.4	96.3	127.1	152.1	138.6	52.0
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°	912.5	912.5	912.5	912.5	912.5	912.5	912.5	912.5	912.5	912.5	912.5
2.5°	922.1	893.3	850.9	818.2	797.0	779.7	772.0	770.1	766.2	764.3	764.3
5°	941.4	889.4	824.0	789.3	779.7	772.0	775.8	777.8	777.8	777.8	777.8
7.5°	970.3	897.1	818.2	795.1	793.2	793.2	804.7	810.5	814.3	814.3	814.3
10°	1008.8	910.6	827.8	808.6	814.3	818.2	831.7	839.4	843.2	845.1	847.1
12.5°	1060.8	939.5	847.1	831.7	839.4	841.3	850.9	854.8	858.6	860.5	860.5
15°	1130.1	981.8	877.9	858.6	860.5	858.6	858.6	854.8	852.8	852.8	856.7
17.5°	1201.3	1022.3	904.8	877.9	870.2	854.8	843.2	833.6	827.8	824.0	825.9
20°	1272.5	1058.8	920.2	881.7	860.5	835.5	814.3	800.9	793.2	785.5	789.3
22.5°	1343.8	1093.5	926.0	870.2	839.4	802.8	779.7	758.5	741.2	729.6	731.6
25°	1422.7	1132.0	926.0	856.7	810.5	772.0	743.1	708.5	683.4	673.8	677.7
27.5°	1501.6	1164.7	916.4	831.7	777.8	739.3	696.9	656.5	641.1	635.3	637.2
30°	1580.5	1189.7	895.2	800.9	743.1	700.8	644.9	618.0	598.7	583.3	585.2
32.5°	1659.5	1207.1	866.3	762.4	706.5	652.6	606.4	575.6	541.0	521.7	523.6
35°	1750.0	1220.5	831.7	723.9	666.1	610.3	575.6	525.6	489.0	473.6	469.7
37.5°	1844.3	1230.2	795.1	681.5	625.7	579.5	544.8	483.2	448.6	427.4	425.5
40°	1946.3	1234.0	750.8	637.2	587.2	560.2	504.4	458.2	398.5	385.0	385.0
42.5°	2067.6	1232.1	706.5	592.9	544.8	515.9	475.5	454.3	402.4	388.9	381.2
45°	2206.2	1232.1	658.4	541.0	502.5	460.1	442.8	429.3	394.7	400.4	404.3
47.5°	2364.1	1228.2	600.6	498.6	467.8	431.2	421.6	392.7	379.3	383.1	387.0
50°	2581.6	1234.0	548.7	464.0	442.8	412.0	400.4	385.0	379.3	381.2	379.3
52.5°	2883.9	1214.8	498.6	442.8	423.5	383.1	383.1	381.2	383.1	381.2	381.2
55°	3049.4	1172.4	462.0	431.2	410.1	369.6	377.3	381.2	385.0	383.1	383.1
57.5°	3284.3	1143.5	433.2	423.5	402.4	365.8	373.5	381.2	383.1	381.2	381.2
60°	3561.5	1124.3	413.9	425.5	396.6	365.8	375.4	381.2	379.3	377.3	377.3
62.5°	3883.0	1116.6	400.4	431.2	390.8	367.7	375.4	381.2	373.5	371.6	371.6
65°	4004.3	1047.3	383.1	435.1	394.7	367.7	373.5	375.4	365.8	363.9	361.9
67.5°	3817.6	927.9	358.1	427.4	406.2	367.7	367.7	365.8	354.2	352.3	348.5
70°	3399.8	770.1	319.6	402.4	413.9	369.6	360.0	350.4	338.8	338.8	331.1
72.5°	2783.8	606.4	269.5	358.1	408.1	375.4	344.6	331.1	317.6	317.6	309.9
75°	2006.0	452.4	215.6	298.4	383.1	373.5	325.4	308.0	292.6	290.7	281.1
77.5°	1143.5	317.6	175.2	232.9	340.8	363.9	308.0	281.1	263.7	258.0	252.2
80°	587.2	213.7	142.5	182.9	283.0	336.9	294.5	250.3	231.0	221.4	211.8
82.5°	279.1	142.5	109.7	134.8	213.7	294.5	277.2	215.6	194.4	182.9	171.3
85°	125.1	84.7	73.2	86.6	152.1	229.1	244.5	177.1	152.1	190.6	140.5
87.5°	40.4	38.5	38.5	40.4	73.2	100.1	179.0	130.9	121.3	100.1	84.7
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)