

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: P214591

Luminaire Tested: **ARCH-AF24-60-D-U-T2R**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214591  
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-AF24-60-D-U-T2R  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 800mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7819.4 lumens  
Efficiency: N/A  
Efficacy: 122.2 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

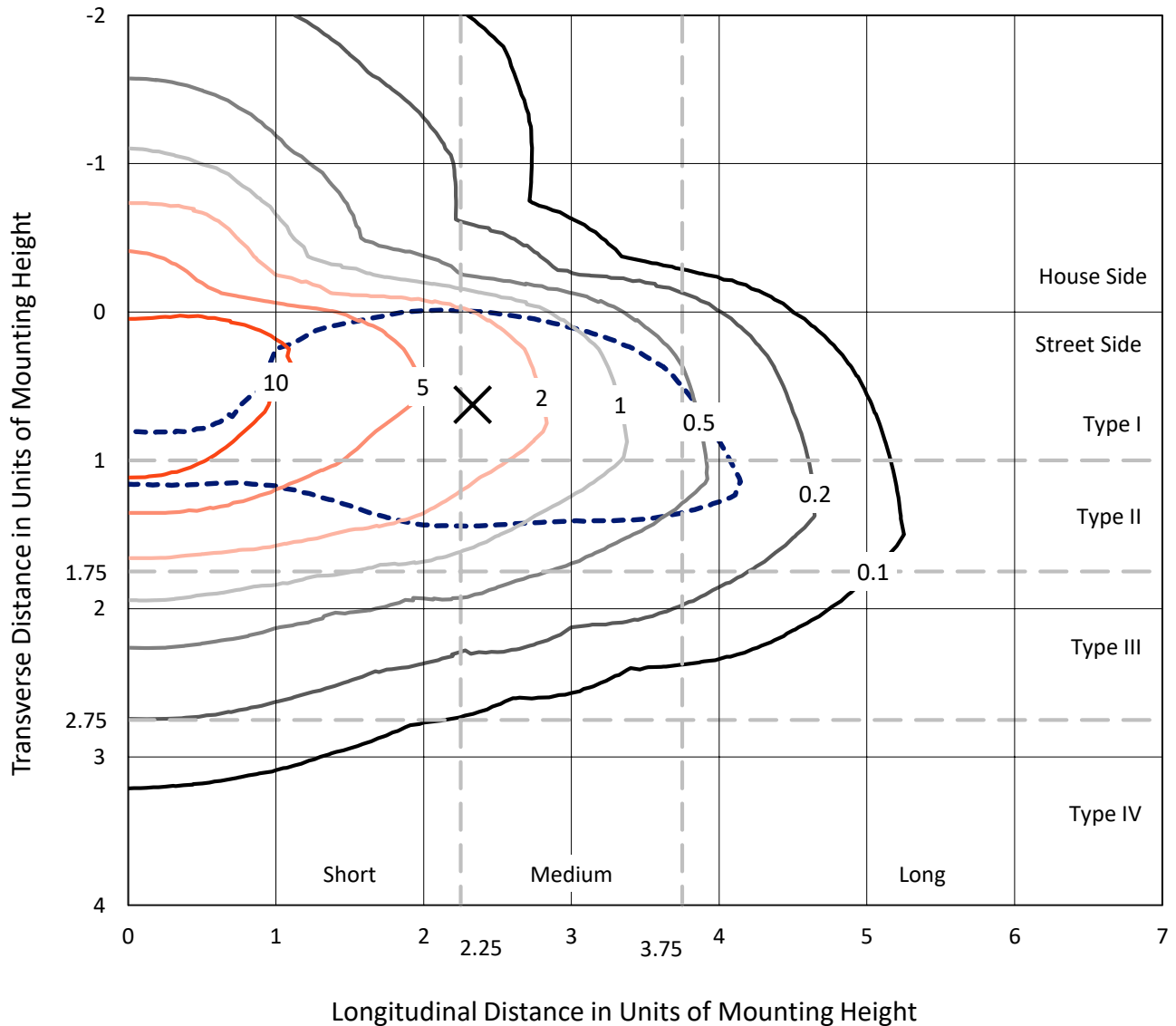
Input Watts (W): 64  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

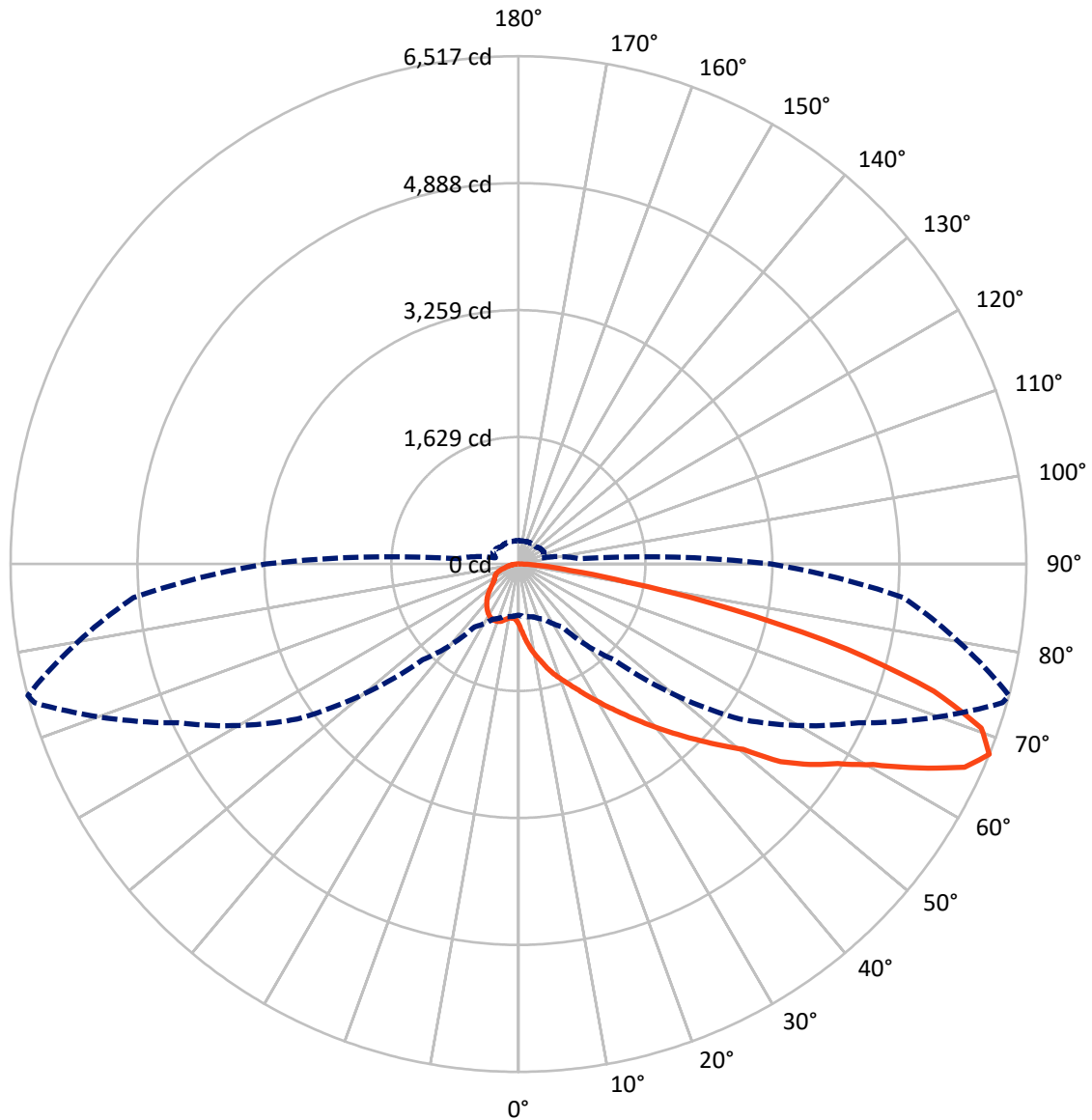


Based on 10 foot mounting height. Maximum calculated value = 16.2 fc  
 Type II - Medium - Semi-Cutoff

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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	1335.3	0.0	1335.3
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	6484.2	0.0	6484.2
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	7819.4	0.0	7819.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.0	1.2
10°-20°	329.0	4.2
20°-30°	600.0	7.7
30°-40°	984.8	12.6
40°-50°	1424.2	18.2
50°-60°	1678.4	21.5
60°-70°	1631.0	20.9
70°-80°	906.6	11.6
80°-90°	174.3	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°	7819.4	100.0
0°-180°	7819.4	100.0

**Coefficient of Utilization**



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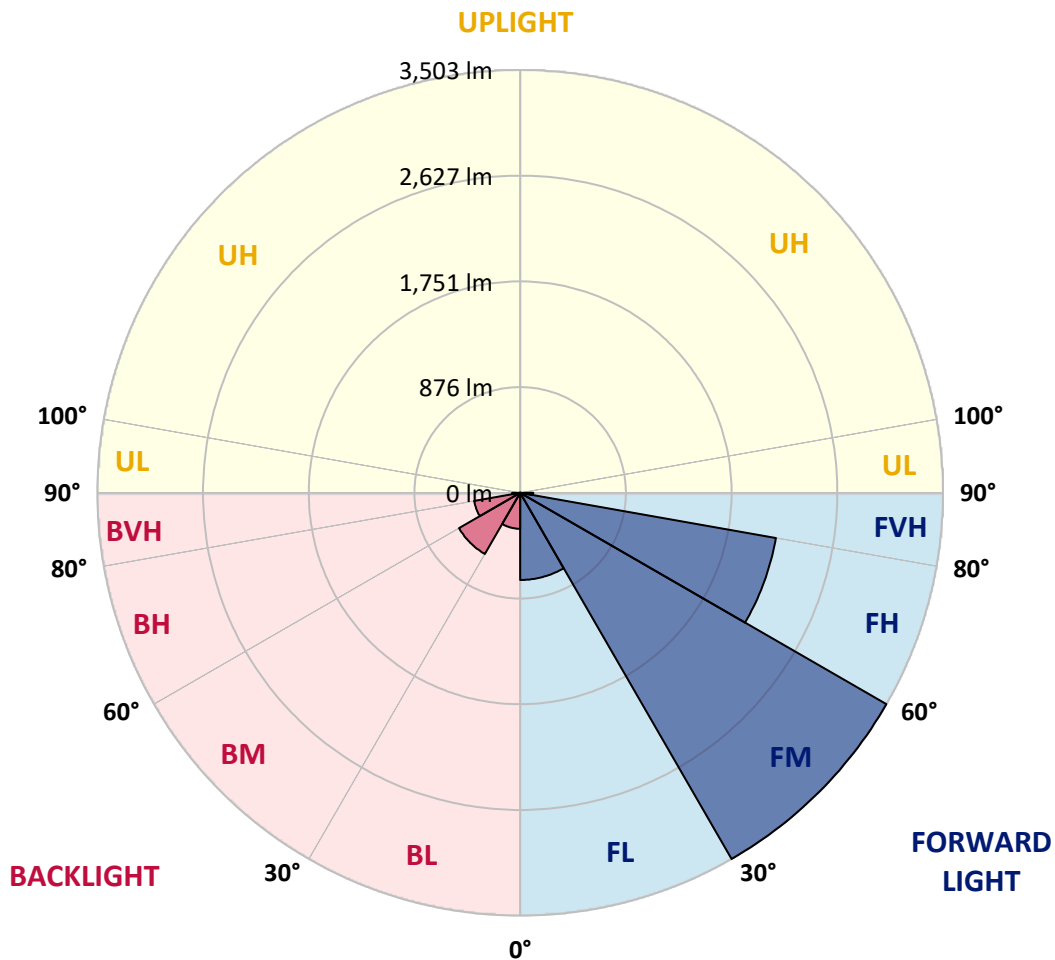
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	721.9	9.2			
FM (30°-60°)	3502.7	44.8			
FH (60°-80°)	2151.0	27.5			G2/5000
FVH (80°-90°)	108.5	1.4			G2/225
BL (0°-30°)	298.0	3.8	B1/500		
BM (30°-60°)	584.8	7.5	B1/1000		
BH (60°-80°)	386.6	4.9	B1/500		G1/500
BVH (80°-90°)	65.8	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°	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8
2.5°	1098.4	1101.7	1095.3	1080.5	1059.3	1020.0	985.7	925.3	871.2	864.7	807.5
5°	1291.4	1294.6	1286.5	1268.5	1245.6	1203.1	1155.7	1077.3	990.6	974.3	853.2
7.5°	1423.7	1425.4	1415.7	1397.7	1379.7	1337.2	1289.7	1201.5	1095.3	1082.2	912.2
10°	1536.6	1539.8	1526.8	1515.3	1495.8	1453.2	1404.2	1311.0	1201.5	1183.5	972.6
12.5°	1641.2	1644.5	1636.3	1626.5	1619.9	1580.8	1526.8	1415.7	1297.9	1278.3	1044.5
15°	1711.5	1714.8	1716.4	1729.5	1737.7	1709.9	1656.0	1534.9	1402.6	1384.6	1129.5
17.5°	1691.9	1700.0	1724.6	1772.0	1822.7	1824.3	1780.1	1652.7	1505.5	1485.9	1216.2
20°	1634.7	1641.2	1670.6	1742.6	1842.2	1899.5	1896.2	1772.0	1601.9	1580.8	1296.3
22.5°	1682.0	1690.2	1690.2	1734.4	1832.4	1938.7	1981.3	1889.7	1698.4	1678.8	1376.4
25°	1884.8	1889.7	1855.3	1837.3	1873.3	1971.4	2051.5	2017.2	1816.1	1793.2	1463.0
27.5°	2167.5	2159.3	2116.9	2045.0	2005.7	2031.9	2113.6	2138.2	1951.8	1924.0	1552.9
30°	2448.7	2443.8	2394.7	2298.4	2210.1	2154.4	2182.3	2246.0	2098.9	2066.3	1639.6
32.5°	2711.9	2703.8	2649.7	2537.0	2437.3	2334.3	2280.4	2344.1	2255.8	2218.3	1736.0
35°	2953.9	2932.6	2878.7	2760.9	2657.9	2559.8	2427.5	2437.3	2425.8	2386.6	1842.2
37.5°	3150.0	3133.6	3074.8	2965.2	2855.8	2762.6	2623.7	2543.6	2608.9	2571.3	1964.9
40°	3323.3	3305.3	3244.8	3135.2	3034.0	2945.7	2836.1	2672.7	2814.9	2772.4	2102.2
42.5°	3454.0	3441.0	3391.9	3284.1	3186.0	3105.9	3051.9	2836.1	3029.1	2988.1	2252.5
45°	3524.4	3511.3	3485.1	3398.4	3308.5	3246.4	3251.3	3030.7	3253.0	3218.6	2430.7
47.5°	3437.7	3447.5	3470.4	3454.0	3398.4	3369.0	3429.5	3231.7	3503.1	3470.4	2623.7
50°	3205.6	3215.3	3306.9	3419.7	3439.4	3475.3	3589.7	3463.8	3767.9	3741.7	2862.3
52.5°	2635.1	2689.0	2942.4	3212.1	3396.8	3545.5	3767.9	3808.8	4214.1	4214.1	3284.1
55°	1991.0	2038.4	2327.7	2798.6	3231.7	3552.1	3898.7	4042.5	4536.2	4542.7	3504.7
57.5°	1613.4	1642.9	1785.0	2267.3	2885.1	3470.4	4054.0	4243.6	4804.3	4833.6	3789.1
60°	1309.4	1325.7	1418.9	1754.0	2406.2	3249.7	4165.1	4531.3	5186.8	5227.7	4152.1
62.5°	1052.7	1069.1	1131.2	1332.3	1888.1	2836.1	4145.5	4830.4	5696.8	5763.8	4627.7
65°	840.3	858.2	899.1	1023.3	1399.3	2322.8	3944.4	4984.1	6224.8	6290.2	4943.2
67.5°	655.5	671.9	699.6	781.3	985.7	1737.7	3468.7	4822.3	6461.8	6517.4	4959.6
70°	495.3	503.5	526.4	578.7	704.5	1154.1	2715.2	4279.5	6249.3	6299.9	4632.6
72.5°	384.1	382.5	395.6	421.8	492.0	794.4	1799.8	3480.2	5525.2	5577.4	3952.6
75°	313.8	312.2	320.4	328.6	356.4	532.9	1062.5	2620.4	4459.3	4359.6	2965.2
77.5°	264.8	263.2	271.4	273.0	284.4	367.8	604.9	1724.6	2975.0	2803.4	1670.6
80°	223.9	222.3	232.1	235.4	243.6	269.8	348.2	933.4	1494.1	1415.7	797.7
82.5°	168.4	174.9	192.9	201.1	210.8	199.5	215.7	411.9	693.0	662.1	346.6
85°	81.7	96.5	145.5	161.8	173.3	125.8	147.1	194.6	312.2	297.5	140.6
87.5°	27.8	24.6	86.6	103.0	112.8	57.2	81.7	107.9	129.1	117.7	44.1
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°	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8	774.8
2.5°	783.0	758.5	722.5	694.7	676.8	662.1	655.5	653.9	650.6	649.0	649.0
5°	799.3	755.2	699.6	670.2	662.1	655.5	658.8	660.4	660.4	660.4	660.4
7.5°	823.9	761.8	694.7	675.1	673.5	673.5	683.3	688.2	691.4	691.4	691.4
10°	856.5	773.1	702.9	686.6	691.4	694.7	706.1	712.7	716.0	717.6	719.2
12.5°	900.7	797.7	719.2	706.1	712.7	714.3	722.5	725.8	729.1	730.7	730.7
15°	959.5	833.7	745.4	729.1	730.7	729.1	729.1	725.8	724.1	724.1	727.4
17.5°	1020.0	868.0	768.3	745.4	738.9	725.8	716.0	707.8	702.9	699.6	701.2
20°	1080.5	899.1	781.3	748.7	730.7	709.4	691.4	680.1	673.5	667.0	670.2
22.5°	1141.0	928.5	786.2	738.9	712.7	681.7	662.1	644.0	629.3	619.5	621.1
25°	1208.0	961.2	786.2	727.4	688.2	655.5	631.0	601.6	580.3	572.1	575.4
27.5°	1275.0	989.0	778.1	706.1	660.4	627.7	591.8	557.4	544.3	539.4	541.0
30°	1342.0	1010.3	760.2	680.1	631.0	595.1	547.6	524.8	508.4	495.3	496.9
32.5°	1409.1	1024.9	735.6	647.3	600.0	554.1	515.0	488.8	459.3	443.0	444.7
35°	1485.9	1036.4	706.1	614.6	565.6	518.2	488.8	446.3	415.2	402.1	398.8
37.5°	1566.0	1044.5	675.1	578.7	531.2	492.0	462.6	410.3	380.8	362.9	361.3
40°	1652.7	1047.8	637.5	541.0	498.6	475.7	428.3	389.0	338.4	326.9	326.9
42.5°	1755.6	1046.2	600.0	503.5	462.6	438.1	403.8	385.8	341.7	330.2	323.7
45°	1873.3	1046.2	559.0	459.3	426.7	390.7	375.9	364.6	335.1	340.0	343.3
47.5°	2007.3	1042.9	510.0	423.4	397.2	366.1	358.0	333.5	322.0	325.3	328.6
50°	2192.1	1047.8	465.9	393.9	375.9	349.8	340.0	326.9	322.0	323.7	322.0
52.5°	2448.7	1031.4	423.4	375.9	359.7	325.3	325.3	323.7	325.3	323.7	323.7
55°	2589.3	995.5	392.3	366.1	348.2	313.8	320.4	323.7	326.9	325.3	325.3
57.5°	2788.8	971.0	367.8	359.7	341.7	310.6	317.1	323.7	325.3	323.7	323.7
60°	3024.1	954.6	351.5	361.3	336.8	310.6	318.8	323.7	322.0	320.4	320.4
62.5°	3297.1	948.1	340.0	366.1	331.8	312.2	318.8	323.7	317.1	315.5	315.5
65°	3400.1	889.3	325.3	369.4	335.1	312.2	317.1	318.8	310.6	308.9	307.3
67.5°	3241.5	787.9	304.0	362.9	344.9	312.2	312.2	310.6	300.7	299.1	295.8
70°	2886.8	653.9	271.4	341.7	351.5	313.8	305.7	297.5	287.7	287.7	281.2
72.5°	2363.7	515.0	228.8	304.0	346.6	318.8	292.6	281.2	269.8	269.8	263.2
75°	1703.3	384.1	183.1	253.4	325.3	317.1	276.3	261.6	248.5	246.8	238.7
77.5°	971.0	269.8	148.7	197.8	289.3	308.9	261.6	238.7	223.9	219.0	214.1
80°	498.6	181.5	121.0	155.3	240.3	286.0	250.1	212.5	196.2	188.0	179.8
82.5°	237.0	121.0	93.2	114.5	181.5	250.1	235.4	183.1	165.1	155.3	145.5
85°	106.3	71.9	62.1	73.6	129.1	194.6	207.6	150.4	129.1	161.8	119.4
87.5°	34.4	32.7	32.7	34.4	62.1	85.0	152.0	111.2	103.0	85.0	71.9
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)