

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: P214864

Luminaire Tested: **ARCH-AF16-40-D-U-T4W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214864
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF16-40-D-U-T4W
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4854.9 lumens
Efficiency: N/A
Efficacy: 115.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 42
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

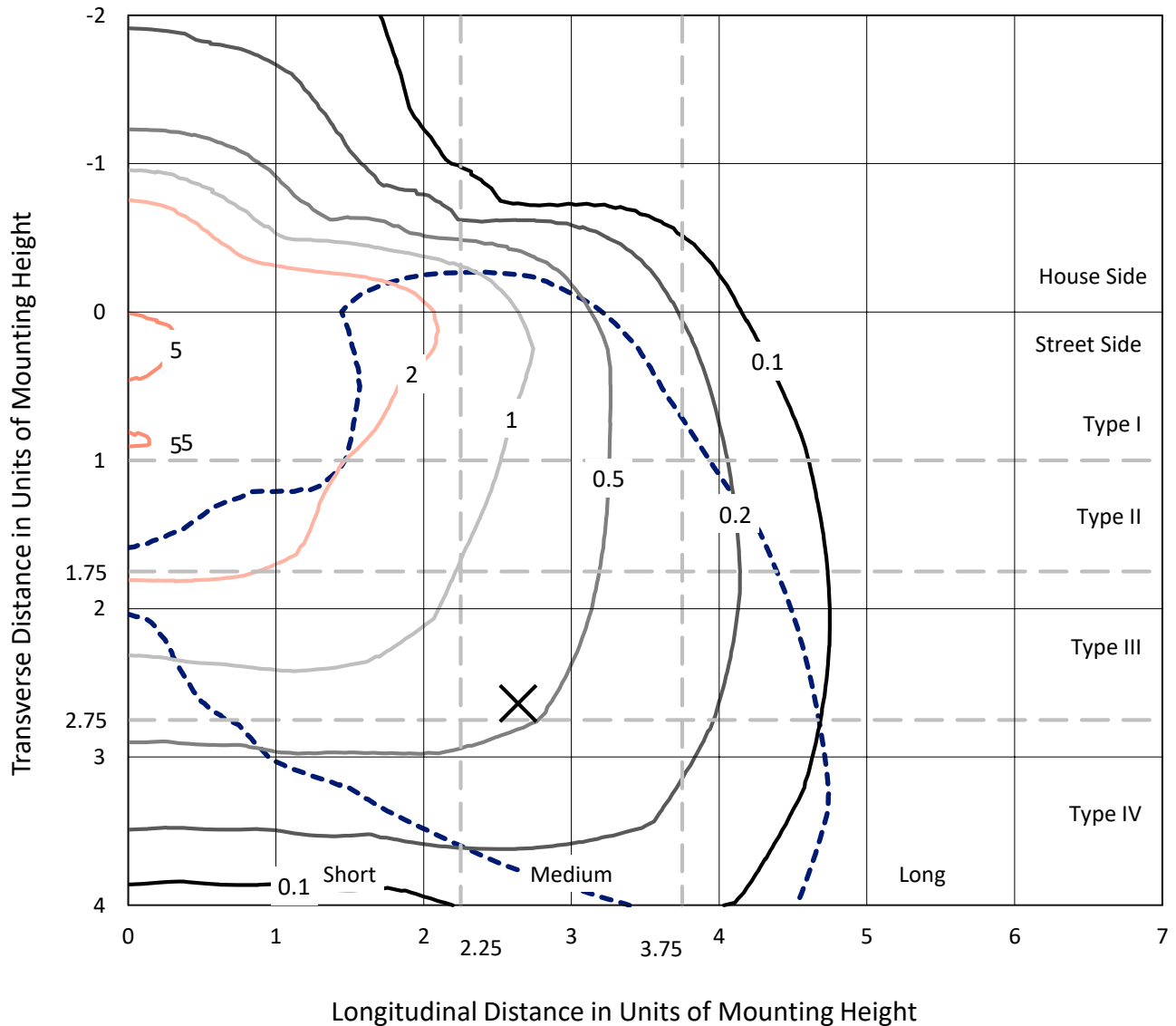


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

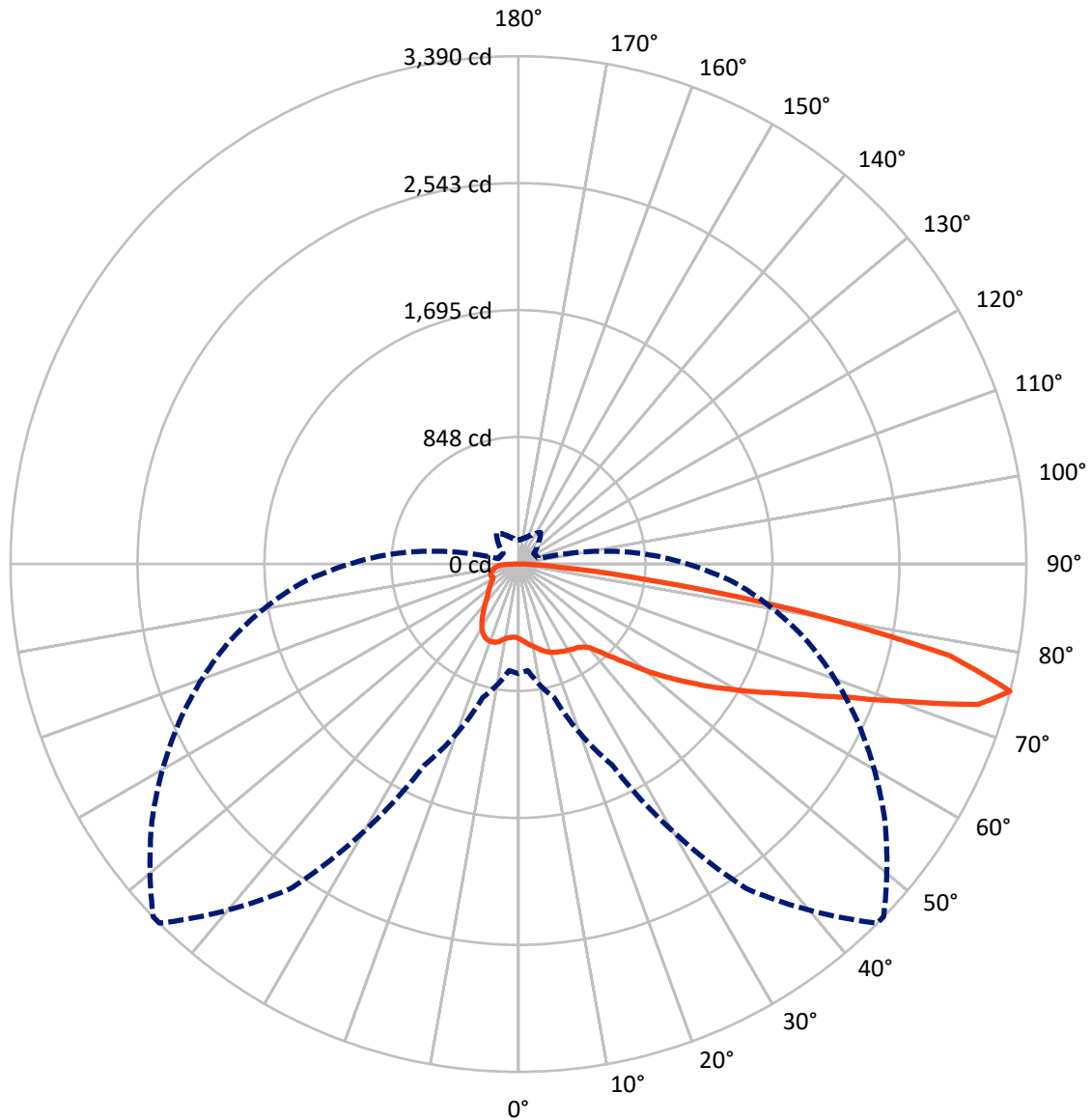


Based on 10 foot mounting height. Maximum calculated value = 5.8 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1124.7	0.0	1124.7
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	3730.2	0.0	3730.2
	% Fixture	76.8	0.0	76.8
Total	Lumens	4854.9	0.0	4854.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.3	1.0
10°-20°	159.8	3.3
20°-30°	274.3	5.6
30°-40°	383.6	7.9
40°-50°	562.7	11.6
50°-60°	876.5	18.1
60°-70°	1261.3	26.0
70°-80°	1098.7	22.6
80°-90°	188.7	3.9
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°	4854.9	100.0
0°-180°	4854.9	100.0

Coefficient of Utilization



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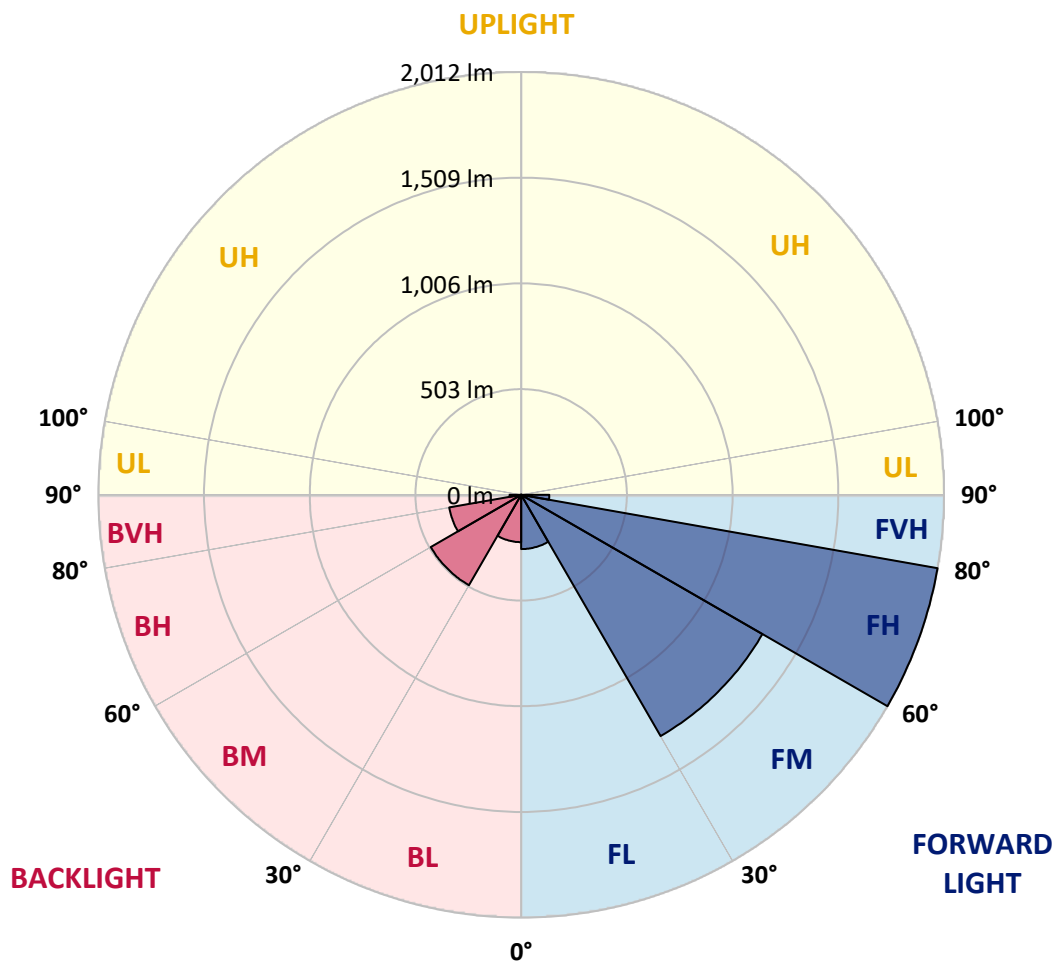
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	258.2	5.3			
FM	(30°-60°)	1325.8	27.3			
FH	(60°-80°)	2012.4	41.5			G2/5000
FVH	(80°-90°)	133.9	2.8			G2/225
BL	(0°-30°)	225.3	4.6	B1/500		
BM	(30°-60°)	497.0	10.2	B1/1000		
BH	(60°-80°)	347.6	7.2	B1/500		G1/500
BVH	(80°-90°)	54.8	1.1			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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	497.7	497.7	497.7	497.7	497.7	497.7	497.7	497.7	497.7	497.7	497.7
2.5°	522.2	518.4	518.4	515.7	515.7	511.0	509.0	508.1	503.4	500.5	497.7
5°	552.5	547.8	546.8	540.2	537.4	527.0	526.0	519.5	511.0	502.4	495.8
7.5°	579.9	577.0	572.3	565.7	557.2	544.0	543.0	532.7	518.4	507.2	497.7
10°	599.7	597.8	591.2	582.7	573.3	560.1	559.0	547.8	530.7	517.5	504.3
12.5°	623.3	620.4	611.9	600.7	590.2	578.0	577.0	567.5	548.7	531.7	514.7
15°	646.0	642.2	631.8	620.4	609.2	598.7	598.7	588.4	568.6	548.7	528.9
17.5°	657.3	655.4	645.1	632.8	623.3	615.7	614.8	605.4	585.5	564.8	543.0
20°	661.0	662.1	652.5	639.3	632.8	629.0	628.0	621.4	599.7	579.9	559.0
22.5°	660.1	663.0	655.4	641.3	639.3	639.3	639.3	631.8	614.8	594.9	574.2
25°	663.9	667.7	662.1	645.1	645.1	648.8	648.8	645.1	629.9	613.0	592.2
27.5°	677.1	680.0	675.2	651.6	652.5	658.3	657.3	658.3	648.8	632.8	611.9
30°	693.2	696.9	691.3	662.1	661.0	666.8	666.8	671.5	664.8	647.8	630.9
32.5°	736.6	735.7	717.7	673.3	670.5	676.2	676.2	680.9	677.1	663.9	647.8
35°	866.0	851.8	812.2	710.2	681.9	684.7	684.7	693.2	695.1	684.7	670.5
37.5°	998.2	993.5	963.3	808.4	723.4	702.7	701.6	713.9	722.5	713.9	704.5
40°	1131.4	1127.6	1121.1	939.7	810.3	734.8	731.9	742.3	757.4	751.8	746.0
42.5°	1255.1	1253.2	1259.9	1069.1	920.8	803.7	795.1	782.9	804.7	802.7	802.7
45°	1352.3	1357.1	1360.8	1189.9	1040.8	892.4	882.1	840.6	869.8	877.4	883.0
47.5°	1407.2	1411.0	1424.2	1307.9	1160.6	995.4	987.9	919.8	958.6	981.2	997.3
50°	1485.5	1475.2	1486.4	1423.2	1305.2	1129.5	1108.8	1026.5	1075.6	1115.3	1153.1
52.5°	1561.1	1544.1	1553.6	1556.4	1469.5	1260.8	1239.1	1152.1	1213.5	1275.9	1342.9
55°	1629.0	1628.1	1637.5	1685.7	1628.1	1401.4	1376.9	1291.0	1379.8	1446.9	1560.1
57.5°	1683.9	1693.3	1734.8	1835.9	1811.3	1554.5	1527.1	1452.5	1557.3	1624.3	1812.3
60°	1748.1	1763.2	1832.1	1963.5	1978.5	1715.1	1686.7	1632.8	1739.6	1807.6	2104.1
62.5°	1769.8	1791.5	1933.2	2097.6	2153.2	1890.7	1865.1	1829.3	1931.3	1992.7	2395.0
65°	1625.3	1666.9	1988.9	2166.4	2341.1	2102.3	2080.5	2049.4	2122.1	2162.7	2592.4
67.5°	1585.7	1604.5	1880.3	2265.6	2517.8	2374.3	2352.5	2298.7	2300.5	2283.5	2656.6
70°	1529.9	1550.7	1768.9	2340.2	2770.9	2746.3	2719.8	2561.2	2464.0	2361.0	2530.1
72.5°	1303.2	1296.7	1524.3	2139.1	2892.7	3207.2	3176.1	2843.6	2584.8	2294.0	2135.3
75°	731.9	713.0	924.5	1479.9	2641.5	3390.4	3389.4	2986.2	2499.8	1998.3	1453.4
77.5°	212.5	206.8	305.0	620.4	1778.3	2945.6	2981.5	2693.4	2086.2	1435.5	798.0
80°	100.1	102.0	131.2	204.9	759.3	1901.1	2004.1	1773.6	1246.6	662.1	329.6
82.5°	63.3	64.2	89.7	132.2	321.1	863.2	948.2	798.0	493.9	286.1	145.5
85°	39.7	39.7	59.5	86.8	191.7	275.8	299.4	272.0	211.5	155.8	79.3
87.5°	21.7	21.7	35.9	50.0	104.9	88.8	91.7	108.6	132.2	95.3	39.7
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°	497.7	497.7	497.7	497.7	497.7	497.7	497.7	497.7	497.7	497.7	497.7
2.5°	496.7	494.9	492.0	491.1	490.1	489.2	490.1	492.0	490.1	490.1	491.1
5°	493.9	492.0	488.3	488.3	489.2	490.1	494.9	497.7	498.7	498.7	498.7
7.5°	493.9	491.1	488.3	489.2	491.1	494.9	502.4	507.2	511.0	511.9	511.9
10°	498.7	494.9	493.0	494.9	500.5	503.4	511.0	518.4	523.2	525.1	525.1
12.5°	507.2	503.4	503.4	507.2	514.7	518.4	525.1	530.7	536.4	539.3	539.3
15°	521.3	516.6	517.5	524.2	532.7	536.4	541.1	543.0	547.8	551.6	551.6
17.5°	534.5	529.8	531.7	539.3	544.9	546.8	549.6	548.7	550.6	553.4	554.3
20°	549.6	544.9	545.8	550.6	551.6	549.6	549.6	546.8	545.8	550.6	552.5
22.5°	564.8	560.1	559.0	556.3	551.6	546.8	544.0	541.1	539.3	544.0	545.8
25°	582.7	576.1	571.3	559.0	546.8	538.3	534.5	532.7	531.7	536.4	538.3
27.5°	602.5	595.9	581.8	555.3	535.5	521.3	518.4	518.4	520.4	523.2	525.1
30°	621.4	614.8	589.3	546.8	515.7	494.9	492.0	494.9	499.6	502.4	505.2
32.5°	640.3	633.7	594.0	533.6	486.4	459.9	458.1	462.8	470.4	472.2	474.1
35°	665.8	659.2	599.7	514.7	449.5	421.3	419.3	422.2	428.7	431.6	434.4
37.5°	701.6	698.0	608.1	493.9	415.5	384.3	378.7	376.9	380.6	379.6	383.4
40°	748.9	751.8	623.3	466.6	382.5	350.4	338.1	332.5	328.7	321.1	324.9
42.5°	817.8	819.7	640.3	435.4	354.1	318.2	302.2	291.8	284.3	272.0	273.8
45°	918.9	902.9	660.1	402.3	328.7	292.8	273.8	261.6	251.2	240.8	241.7
47.5°	1053.0	1003.9	681.9	374.9	303.2	272.0	255.0	240.8	228.5	220.0	221.0
50°	1218.2	1129.5	703.6	349.4	277.6	255.9	240.8	225.7	213.4	204.9	204.0
52.5°	1436.4	1280.6	717.7	321.1	252.2	241.7	228.5	214.4	199.3	188.8	187.9
55°	1663.1	1456.3	730.0	287.1	227.6	225.7	219.1	203.1	185.1	171.9	170.0
57.5°	1912.4	1644.2	739.5	254.0	208.7	212.5	210.6	191.7	171.9	159.6	158.7
60°	2139.1	1838.8	709.2	224.7	191.7	199.3	201.1	185.1	174.7	177.6	178.5
62.5°	2367.6	1988.9	594.0	203.1	180.3	190.8	206.8	205.9	201.1	205.9	206.8
65°	2449.8	2020.0	421.3	185.1	169.1	194.6	224.7	222.9	201.1	192.6	190.8
67.5°	2403.5	1927.5	283.4	170.9	160.5	199.3	243.7	222.9	193.6	182.3	178.5
70°	2183.5	1699.9	207.8	156.8	153.0	198.4	254.0	222.0	189.9	177.6	172.8
72.5°	1741.5	1311.7	167.2	143.5	141.7	193.6	259.7	220.0	186.1	172.8	167.2
75°	1127.6	816.0	140.8	130.3	124.7	186.1	256.9	214.4	181.4	164.3	160.5
77.5°	523.2	351.3	119.9	115.2	108.6	174.7	248.4	203.1	170.9	154.9	150.2
80°	243.7	166.2	101.1	100.1	97.3	165.3	237.0	189.9	158.7	145.5	137.9
82.5°	130.3	100.1	82.1	82.1	85.0	154.0	222.9	173.8	142.6	136.0	116.2
85°	68.9	57.6	59.5	64.2	72.7	136.0	204.0	156.8	124.7	103.9	101.1
87.5°	35.0	36.8	36.8	43.5	55.8	110.5	168.1	129.4	105.8	85.0	83.1
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)