

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: P234849

Luminaire Tested: **ARCH-M-AF48-90-D-U-T4W-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234849
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-90-D-U-T4W-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 600mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7100 lumens
Efficiency: N/A
Efficacy: 77.2 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 92
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

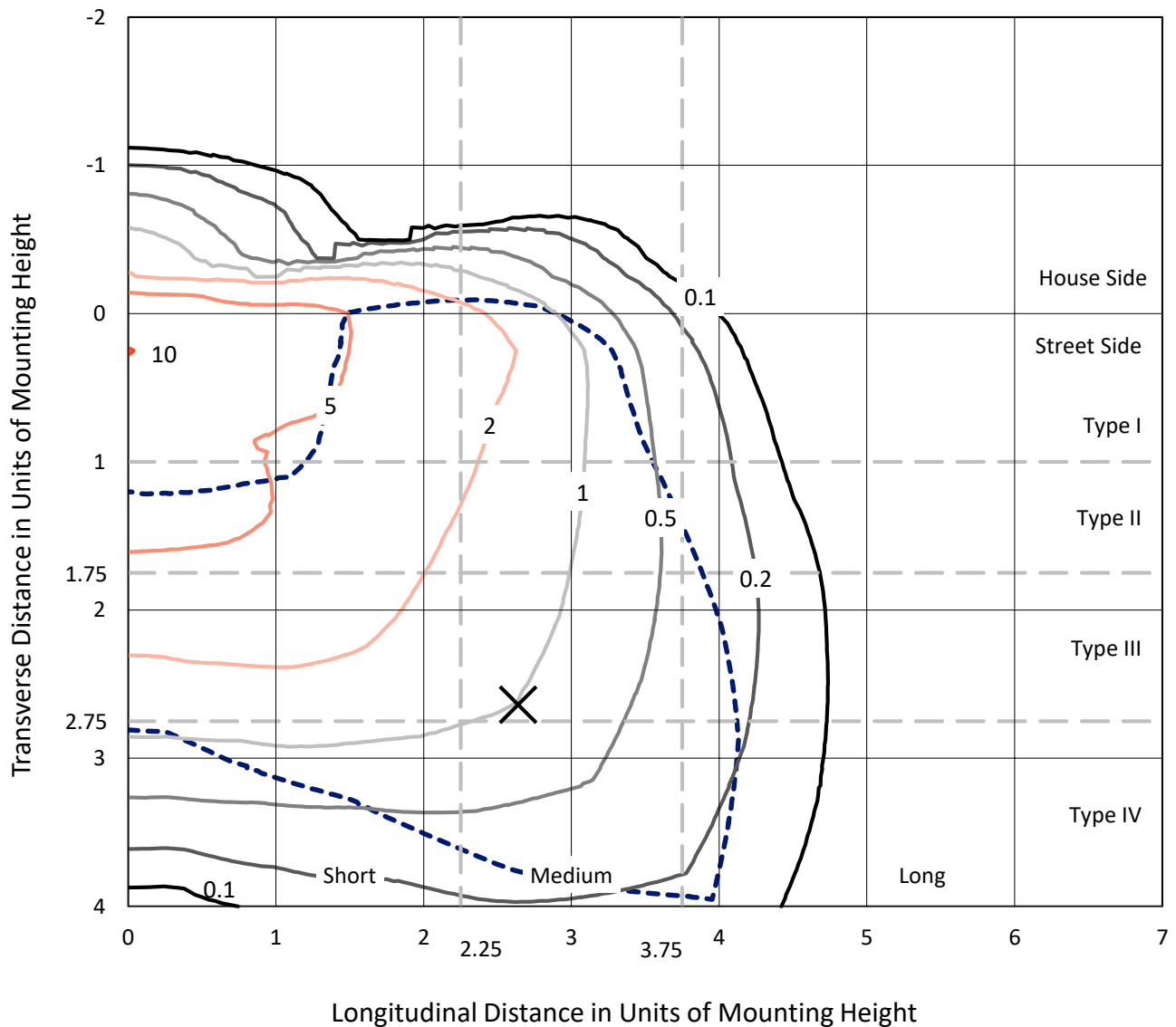


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

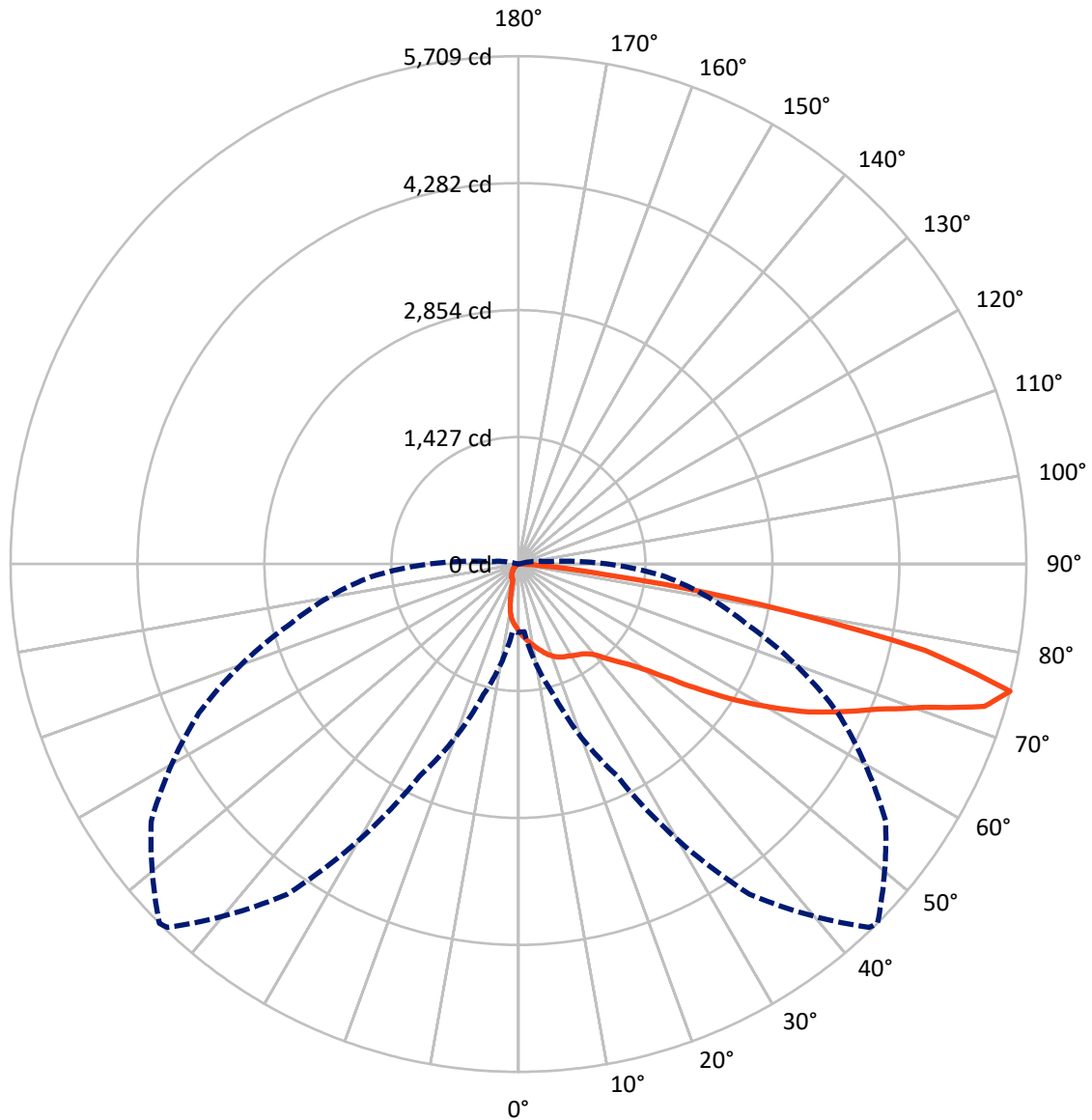


Based on 10 foot mounting height. Maximum calculated value = 10.1 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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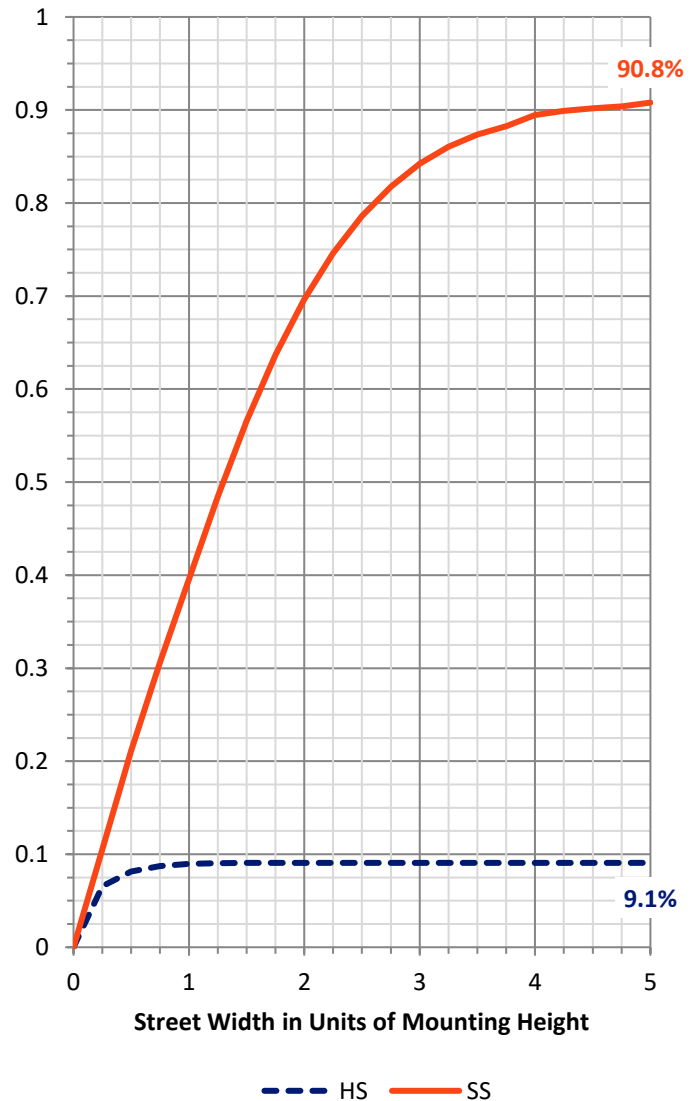
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	649.4	0.0	649.4
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	6450.6	0.0	6450.6
	% Fixture	90.9	0.0	90.9
Total	Lumens	7100.0	0.0	7100.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.7	1.0
10°-20°	203.0	2.9
20°-30°	336.3	4.7
30°-40°	486.6	6.9
40°-50°	796.9	11.2
50°-60°	1419.9	20.0
60°-70°	2087.4	29.4
70°-80°	1574.7	22.2
80°-90°	123.5	1.7
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°	7100.0	100.0
0°-180°	7100.0	100.0



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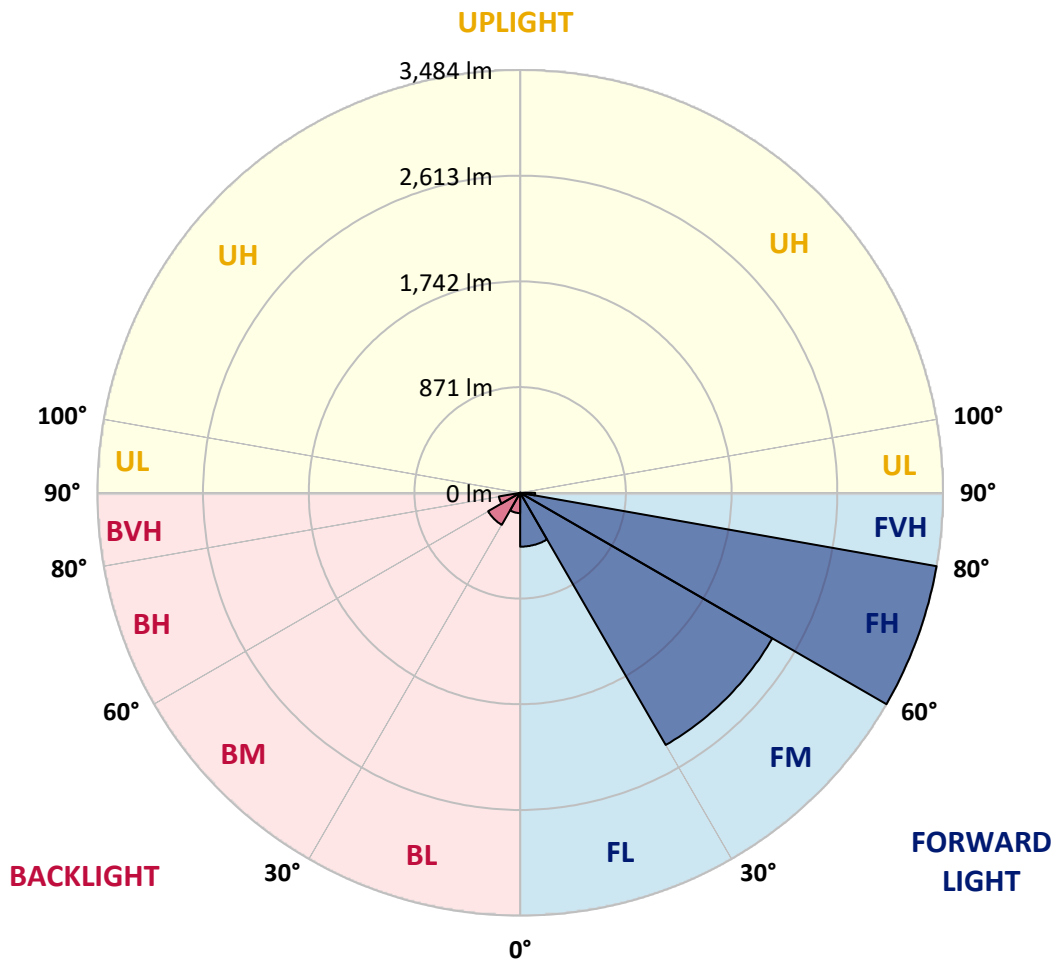
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	444.1	6.3			
FM	(30°-60°)	2399.0	33.8			
FH	(60°-80°)	3484.2	49.1			G2/5000
FVH	(80°-90°)	123.2	1.7			G2/225
BL	(0°-30°)	166.9	2.4	B1/500		
BM	(30°-60°)	304.3	4.3	B1/1000		
BH	(60°-80°)	177.9	2.5	B1/500		G1/500
BVH	(80°-90°)	0.3	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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	759.4	759.4	759.4	759.4	759.4	759.4	759.4	759.4	759.4	759.4	759.4
2.5°	824.9	824.9	823.2	821.5	813.1	804.7	803.1	798.0	782.9	772.8	762.7
5°	893.8	895.5	892.1	883.7	865.2	846.7	845.1	831.6	803.1	782.9	761.1
7.5°	959.3	962.7	954.3	939.1	917.3	890.4	888.7	863.5	826.6	798.0	766.1
10°	1014.8	1014.8	1003.0	984.5	961.0	932.4	929.1	900.5	858.5	823.2	781.2
12.5°	1075.2	1073.6	1056.8	1031.6	1004.7	977.8	976.1	940.8	900.5	855.1	803.1
15°	1130.7	1127.3	1105.5	1082.0	1053.4	1024.8	1023.2	987.9	945.9	892.1	835.0
17.5°	1160.9	1159.2	1139.1	1115.6	1092.0	1070.2	1068.5	1031.6	986.2	930.7	866.9
20°	1166.0	1167.6	1150.8	1130.7	1117.2	1105.5	1105.5	1071.9	1023.2	964.3	900.5
22.5°	1167.6	1172.7	1160.9	1134.0	1130.7	1132.4	1135.7	1108.8	1058.4	1003.0	935.8
25°	1179.4	1186.1	1177.7	1145.8	1142.4	1154.2	1157.6	1145.8	1100.4	1045.0	976.1
27.5°	1202.9	1209.6	1202.9	1162.6	1157.6	1169.3	1172.7	1179.4	1145.8	1085.3	1018.1
30°	1250.0	1251.6	1236.5	1186.1	1176.0	1191.2	1196.2	1214.7	1187.8	1124.0	1058.4
32.5°	1332.3	1315.5	1270.1	1202.9	1194.5	1211.3	1216.4	1236.5	1226.4	1160.9	1100.4
35°	1500.3	1412.9	1308.8	1226.4	1218.0	1234.8	1241.6	1270.1	1275.2	1213.0	1152.5
37.5°	1498.6	1419.6	1399.5	1271.8	1260.0	1271.8	1280.2	1315.5	1335.6	1281.9	1228.1
40°	1604.4	1570.8	1570.8	1357.5	1318.8	1335.6	1344.0	1379.3	1414.6	1372.6	1317.2
42.5°	1937.1	1915.3	1891.7	1522.1	1401.2	1448.2	1453.2	1475.1	1517.1	1503.6	1438.1
45°	2308.4	2288.2	2197.5	1801.0	1542.3	1550.7	1562.4	1597.7	1658.2	1683.4	1606.1
47.5°	2599.0	2578.9	2501.6	2137.0	1762.4	1688.5	1688.5	1757.3	1851.4	1915.3	1841.3
50°	2832.6	2809.0	2762.0	2494.9	2123.6	1886.7	1876.6	1957.3	2096.7	2195.8	2145.4
52.5°	3059.4	2990.5	2961.9	2864.5	2531.8	2174.0	2147.1	2204.2	2397.4	2520.1	2478.1
55°	3210.6	3200.5	3170.3	3203.9	2960.3	2523.4	2499.9	2511.7	2753.6	2835.9	2783.8
57.5°	3351.7	3350.0	3417.2	3573.5	3427.3	2923.3	2886.3	2867.8	3098.0	3077.9	3123.2
60°	3526.4	3496.2	3652.4	3875.9	3855.7	3313.1	3271.1	3234.1	3361.8	3304.7	3529.8
62.5°	3534.8	3526.4	3844.0	4164.8	4280.8	3709.6	3660.8	3528.1	3592.0	3526.4	3917.9
65°	3213.9	3255.9	3924.6	4317.7	4636.9	4057.3	3998.5	3791.9	3796.9	3753.2	4374.9
67.5°	3141.7	3163.5	3702.8	4482.4	4894.0	4408.5	4353.0	4096.0	4035.5	4038.8	4645.3
70°	2961.9	2995.5	3427.3	4470.6	5097.3	4877.2	4821.7	4542.9	4396.7	4233.7	4437.0
72.5°	2263.0	2320.2	2888.0	3919.6	5041.8	5490.4	5475.3	5109.0	4541.2	3887.6	3356.7
75°	766.1	764.4	1517.1	2632.6	4529.4	5678.6	5708.8	5038.5	3961.6	2681.4	1666.6
77.5°	164.6	166.3	312.5	1066.8	3009.0	4559.7	4675.6	3800.3	2555.4	1194.5	381.4
80°	80.6	82.3	129.4	282.2	1202.9	2557.0	2738.5	1953.9	944.2	238.6	63.8
82.5°	40.3	42.0	67.2	149.5	445.2	908.9	971.1	719.1	270.5	134.4	31.9
85°	15.1	15.1	33.6	89.0	203.3	213.4	262.1	208.3	163.0	109.2	8.4
87.5°	3.4	3.4	18.5	43.7	90.7	67.2	67.2	63.8	99.1	73.9	3.4
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°	759.4	759.4	759.4	759.4	759.4	759.4	759.4	759.4	759.4	759.4	759.4
2.5°	757.7	751.0	739.2	727.5	719.1	709.0	703.9	698.9	697.2	695.5	698.9
5°	749.3	739.2	717.4	698.9	682.1	668.7	658.6	648.5	643.5	640.1	641.8
7.5°	749.3	734.2	702.3	673.7	646.8	618.3	589.7	567.9	551.1	541.0	542.7
10°	757.7	737.5	695.5	656.9	606.5	546.0	483.9	436.8	404.9	386.4	386.4
12.5°	776.2	749.3	697.2	636.7	551.1	445.2	351.1	294.0	270.5	257.0	258.7
15°	801.4	769.5	705.6	609.9	473.8	331.0	245.3	208.3	208.3	211.7	213.4
17.5°	829.9	794.7	712.3	569.5	374.7	236.9	193.2	189.8	194.9	203.3	203.3
20°	858.5	819.9	715.7	505.7	280.6	188.2	183.1	183.1	186.5	194.9	196.6
22.5°	893.8	851.8	712.3	426.7	210.0	178.1	176.4	176.4	176.4	186.5	186.5
25°	930.7	888.7	698.9	342.7	178.1	171.4	169.7	168.0	168.0	176.4	178.1
27.5°	972.8	927.4	667.0	262.1	168.0	164.6	163.0	159.6	159.6	166.3	166.3
30°	1014.8	971.1	618.3	198.2	159.6	157.9	154.6	151.2	147.8	154.6	154.6
32.5°	1060.1	1016.4	554.4	157.9	147.8	147.8	146.2	141.1	137.8	141.1	142.8
35°	1120.6	1068.5	482.2	137.8	132.7	132.7	132.7	131.0	124.3	127.7	127.7
37.5°	1201.2	1140.8	398.2	127.7	121.0	117.6	117.6	117.6	112.6	114.2	114.2
40°	1303.7	1224.8	317.5	119.3	112.6	104.2	100.8	102.5	99.1	99.1	97.4
42.5°	1443.2	1315.5	238.6	112.6	105.8	94.1	87.4	85.7	82.3	80.6	80.6
45°	1643.1	1426.4	171.4	105.8	100.8	82.3	75.6	70.6	62.2	57.1	57.1
47.5°	1901.8	1552.4	127.7	99.1	95.8	72.2	63.8	53.8	42.0	38.6	38.6
50°	2217.7	1693.5	107.5	89.0	87.4	63.8	50.4	35.3	23.5	20.2	21.8
52.5°	2525.1	1826.2	95.8	79.0	77.3	55.4	37.0	18.5	10.1	10.1	10.1
55°	2783.8	1920.3	87.4	70.6	67.2	43.7	20.2	8.4	5.0	5.0	5.0
57.5°	3017.4	1974.1	79.0	62.2	53.8	30.2	8.4	3.4	3.4	1.7	1.7
60°	3230.7	2006.0	68.9	53.8	42.0	16.8	3.4	1.7	1.7	0.0	0.0
62.5°	3440.7	2029.5	58.8	43.7	31.9	6.7	1.7	1.7	0.0	0.0	0.0
65°	3600.4	2021.1	47.0	35.3	20.2	3.4	1.7	0.0	0.0	0.0	0.0
67.5°	3595.3	1906.9	35.3	26.9	10.1	1.7	0.0	0.0	0.0	0.0	0.0
70°	3215.6	1606.1	23.5	16.8	3.4	1.7	0.0	0.0	0.0	0.0	0.0
72.5°	2281.5	1029.9	15.1	10.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0
75°	1004.7	312.5	8.4	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	196.6	72.2	5.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	47.0	8.4	1.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	20.2	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.4	1.7	0.0	0.0	0.0	0.0	0.0	0.0	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)