

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: LUMARK

Report Number: P196555

Luminaire Tested: **NAV-AF-01-D-UNV-SL2-7030-1200-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196555
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24258)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-01-D-UNV-SL2-7030-1200-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5287.1 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 67
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: 25 FT

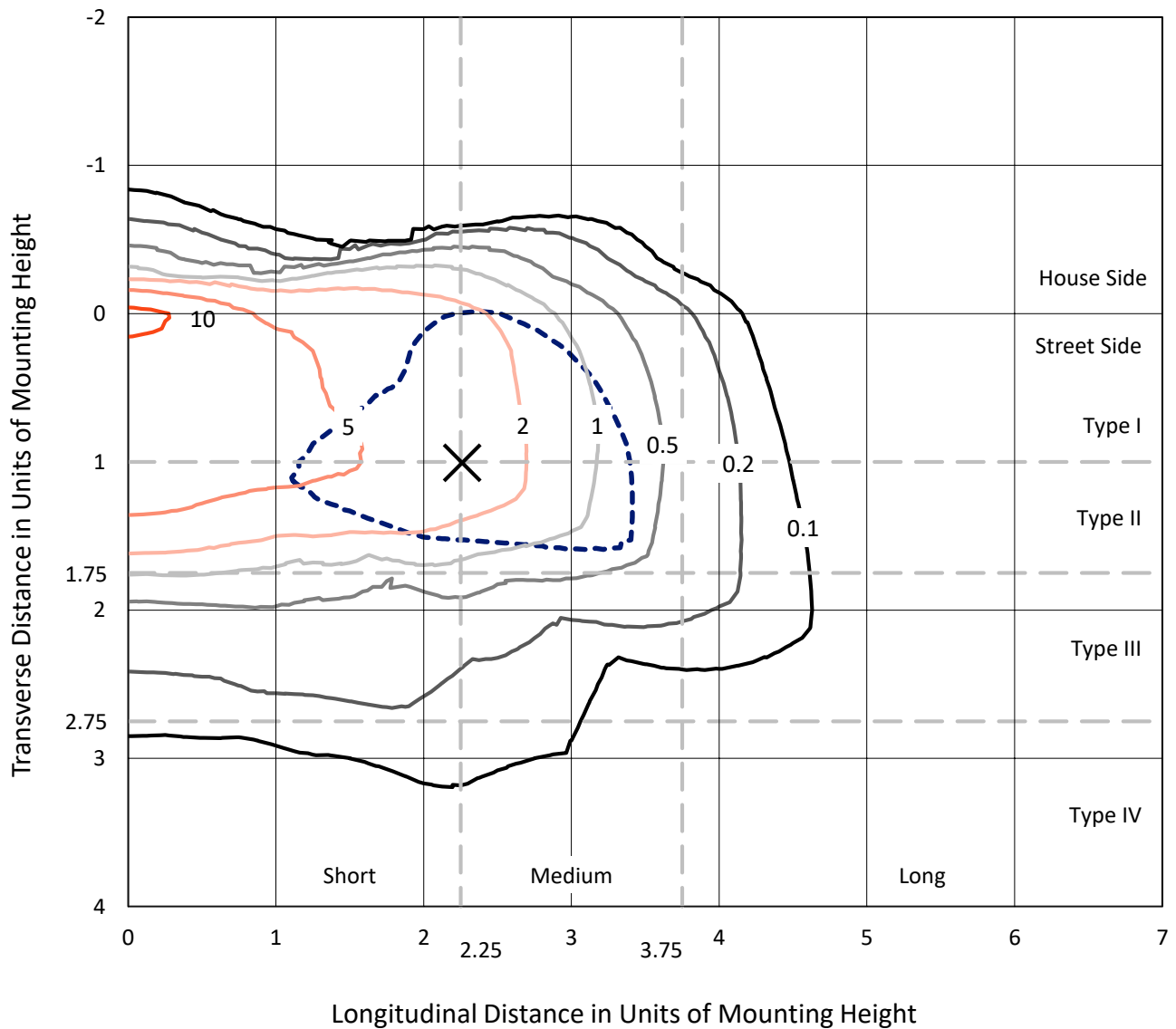


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

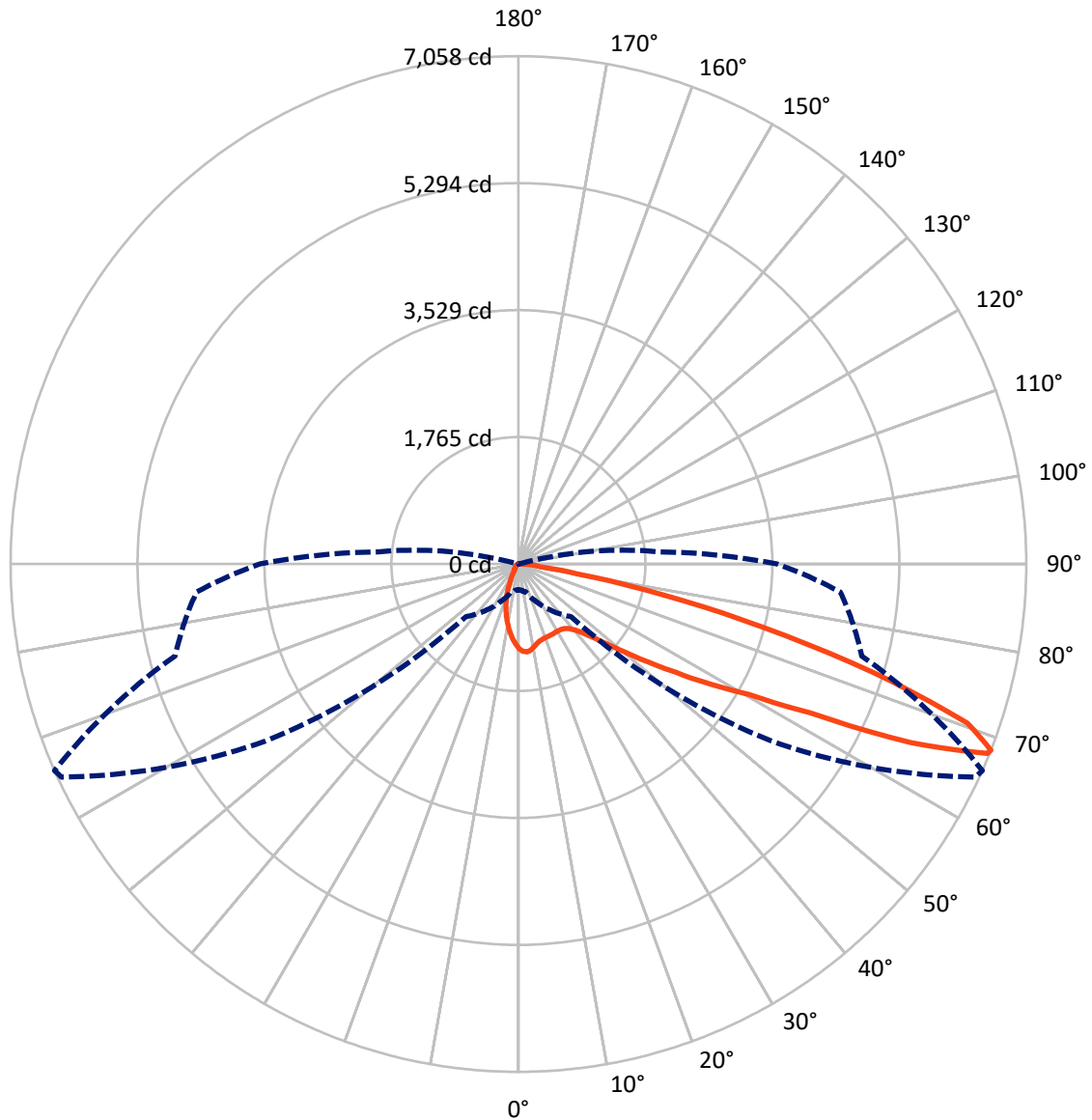


Based on 10 foot mounting height. Maximum calculated value = 11.8 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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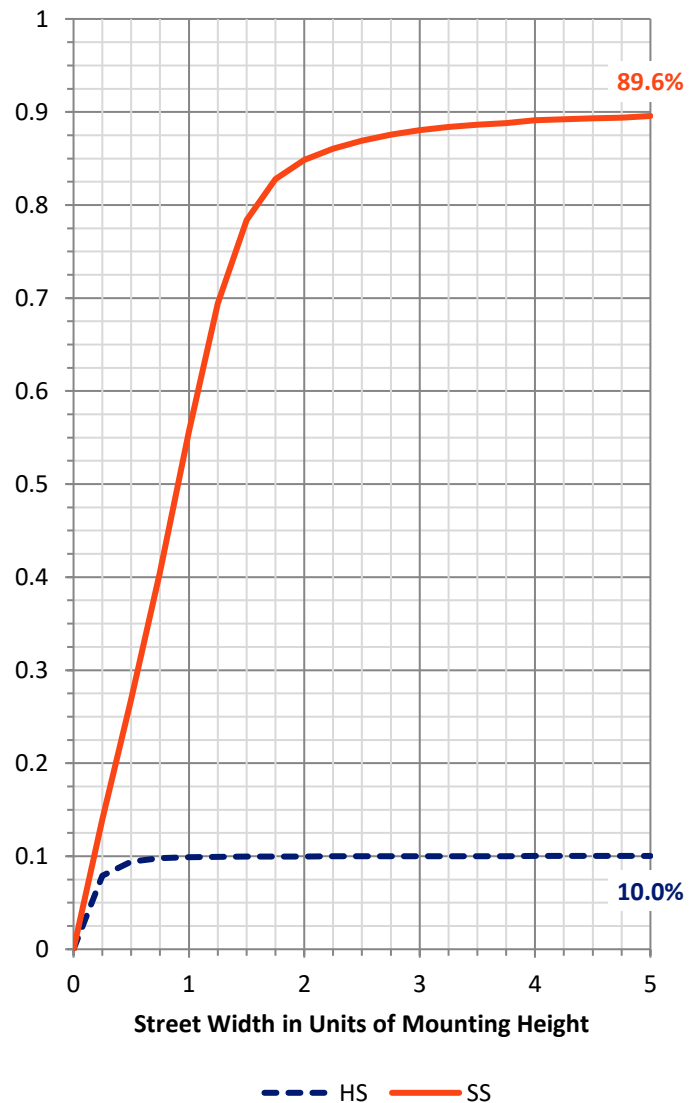
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	535.5	0.0	535.5
	% Fixture	10.1	0.0	10.1
Street Side	Lumens	4751.5	0.0	4751.5
	% Fixture	89.9	0.0	89.9
Total	Lumens	5287.1	0.0	5287.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.6	1.8
10°-20°	207.8	3.9
20°-30°	301.1	5.7
30°-40°	460.9	8.7
40°-50°	788.3	14.9
50°-60°	1233.2	23.3
60°-70°	1419.9	26.9
70°-80°	710.5	13.4
80°-90°	68.8	1.3
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°	5287.1	100.0
0°-180°	5287.1	100.0



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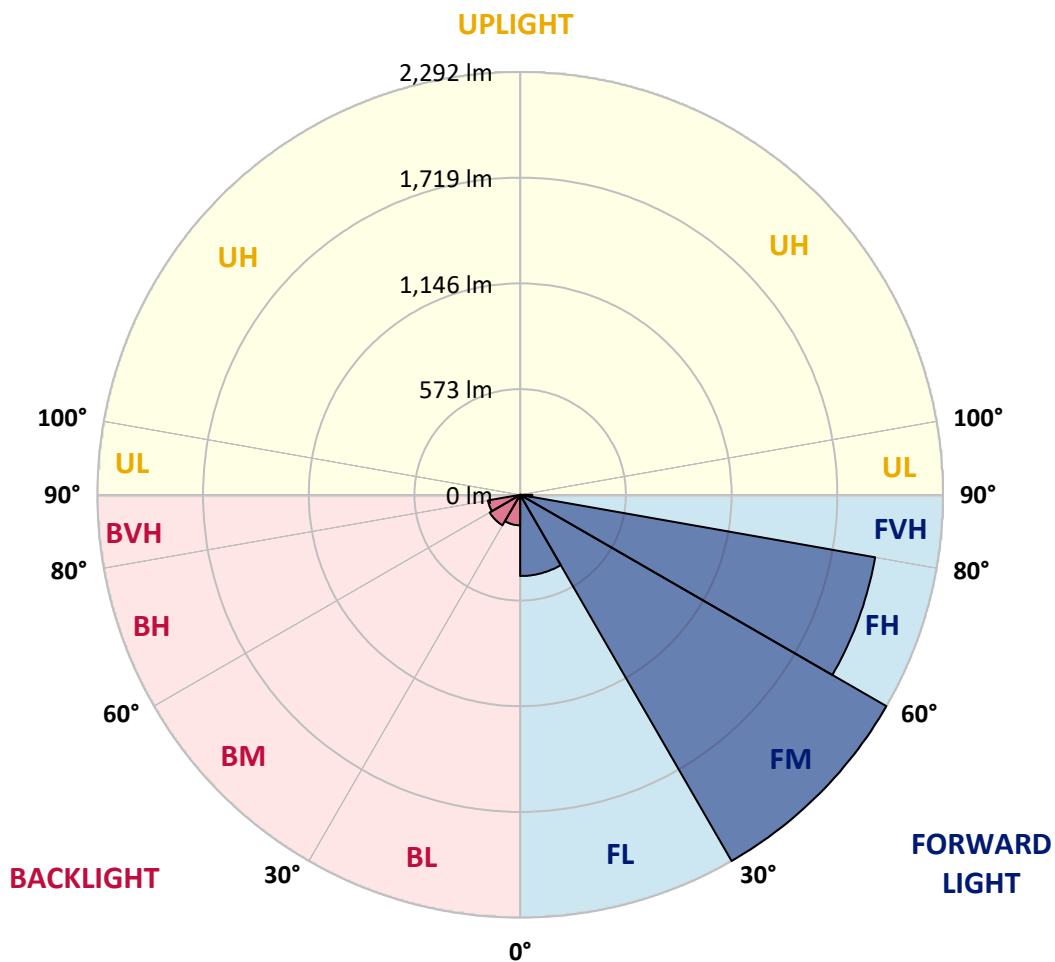
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	440.1	8.3			
FM (30°-60°)	2291.7	43.3			
FH (60°-80°)	1953.5	36.9			G2/5000
FVH (80°-90°)	66.2	1.3			G1/100
BL (0°-30°)	165.3	3.1	B1/500		
BM (30°-60°)	190.7	3.6	B0/220		
BH (60°-80°)	176.9	3.3	B1/500		G1/500
BVH (80°-90°)	2.6	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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	1178.0	1178.0	1178.0	1178.0	1178.0	1178.0	1178.0	1178.0	1178.0	1178.0	1178.0
2.5°	1238.9	1239.8	1239.3	1240.5	1239.8	1233.5	1226.9	1212.8	1214.0	1195.8	1175.4
5°	1151.8	1158.8	1165.9	1172.9	1190.0	1204.9	1222.7	1226.9	1226.9	1211.1	1181.2
7.5°	1063.0	1063.3	1071.3	1080.8	1103.6	1131.1	1172.5	1209.8	1210.7	1214.9	1182.0
10°	996.1	998.2	1003.5	1013.9	1036.8	1063.7	1110.3	1168.7	1173.3	1204.0	1173.8
12.5°	944.2	946.7	952.5	964.5	985.3	1013.2	1062.1	1128.9	1135.2	1193.6	1171.3
15°	904.3	907.7	912.4	924.4	946.7	976.2	1029.8	1102.3	1109.8	1189.5	1179.1
17.5°	887.8	887.8	887.4	895.7	918.1	948.0	1004.0	1088.2	1097.8	1192.9	1192.4
20°	894.9	893.6	884.9	882.9	896.5	926.4	983.7	1079.2	1090.0	1199.1	1208.6
22.5°	932.2	929.7	910.2	894.0	889.9	909.8	970.0	1072.9	1085.8	1211.9	1230.1
25°	1011.5	1004.0	977.0	940.5	907.7	905.6	960.4	1069.5	1083.3	1226.9	1253.9
27.5°	1114.5	1112.4	1069.2	1020.2	957.1	919.3	957.5	1067.1	1080.8	1237.7	1273.0
30°	1242.3	1243.1	1193.2	1129.3	1033.9	957.9	966.6	1065.9	1079.9	1238.5	1281.3
32.5°	1374.3	1375.0	1333.5	1265.1	1138.9	1024.3	992.4	1071.7	1084.5	1235.1	1280.8
35°	1501.2	1502.5	1477.6	1422.3	1279.2	1116.5	1040.9	1091.6	1100.7	1237.3	1280.0
37.5°	1661.9	1666.9	1636.1	1584.7	1455.2	1251.8	1120.2	1131.8	1139.3	1254.3	1286.2
40°	1935.7	1929.2	1841.1	1753.9	1646.1	1416.5	1234.7	1201.2	1203.6	1298.2	1309.9
42.5°	2255.0	2246.7	2096.0	1945.8	1842.4	1615.4	1381.2	1307.4	1307.0	1372.2	1361.4
45°	2529.7	2524.8	2366.2	2165.7	2059.9	1834.9	1561.9	1460.6	1455.6	1500.0	1455.2
47.5°	2724.8	2720.7	2600.7	2399.8	2311.4	2076.5	1787.2	1669.4	1659.0	1667.3	1607.5
50°	2743.8	2739.3	2697.4	2568.3	2605.3	2430.9	2065.6	1942.8	1929.5	1916.7	1837.8
52.5°	2565.4	2565.0	2587.0	2578.7	2811.1	2887.0	2407.3	2281.2	2265.4	2232.5	2154.0
55°	2200.6	2198.6	2281.9	2403.1	2806.6	3357.7	2928.1	2683.7	2662.9	2597.4	2494.4
57.5°	1607.9	1597.2	1771.4	2028.3	2609.4	3563.6	3755.3	3183.9	3149.4	2941.5	2783.0
60°	887.8	892.0	1116.1	1420.3	2142.5	3522.9	4516.6	3766.9	3676.5	3238.2	3078.4
62.5°	497.6	508.0	674.9	923.0	1366.0	3193.0	4925.0	4770.6	4552.7	3584.4	3451.9
65°	376.4	382.6	466.5	712.3	861.2	2231.3	4990.1	6173.8	5985.8	4109.0	4046.8
67.5°	354.4	359.5	400.6	590.6	784.5	1157.2	4499.6	7003.9	7027.5	4824.6	4507.4
68°	356.9	363.2	404.3	568.1	783.2	1035.1	4290.4	7008.1	7058.2	4939.9	4491.6
70°	327.9	329.5	427.5	557.4	759.2	815.6	3103.7	6527.9	6618.0	5077.3	4077.4
72.5°	125.3	125.7	191.7	482.7	795.2	820.1	1563.5	5159.4	5164.0	4418.6	3178.9
75°	65.1	54.7	60.2	151.1	759.6	799.3	784.5	3522.9	3500.8	2988.3	1947.9
77.5°	44.8	38.1	40.2	52.3	315.9	799.0	566.5	2025.8	2021.3	1271.3	555.8
80°	25.3	22.0	24.0	44.0	110.8	749.9	527.9	870.8	820.5	223.3	90.0
82.5°	12.9	10.8	12.9	36.9	69.0	471.9	513.4	341.6	304.2	53.1	58.6
85°	3.3	3.3	6.2	25.7	42.7	154.8	460.3	246.5	221.7	23.3	41.5
87.5°	0.9	0.4	2.5	9.5	15.4	33.7	255.2	137.3	118.3	12.0	24.0
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°	1178.0	1178.0	1178.0	1178.0	1178.0	1178.0	1178.0	1178.0	1178.0	1178.0	1178.0
2.5°	1167.1	1155.5	1132.7	1106.9	1088.7	1068.8	1057.1	1043.0	1032.2	1022.6	1029.8
5°	1162.9	1140.5	1090.0	1033.0	985.3	939.6	905.6	873.3	848.7	833.4	839.6
7.5°	1152.1	1119.0	1036.8	948.0	869.9	796.5	736.7	683.2	641.7	619.3	626.3
10°	1133.9	1087.0	976.6	853.4	744.2	640.4	551.6	471.9	411.7	383.5	390.2
12.5°	1120.7	1058.8	914.4	762.0	618.4	471.1	353.2	261.9	215.0	186.8	189.2
15°	1114.8	1036.8	856.3	665.7	481.1	302.5	190.8	138.2	122.1	116.3	116.6
17.5°	1115.6	1019.4	801.1	565.8	342.4	173.9	117.0	105.4	102.9	101.7	101.7
20°	1117.7	1001.9	743.7	461.5	219.2	112.1	97.6	93.9	92.6	90.9	91.3
22.5°	1124.0	988.7	686.0	356.9	134.9	91.3	86.4	83.0	81.0	78.4	78.8
25°	1133.4	978.6	629.3	256.9	95.0	79.6	75.2	70.6	66.8	63.9	64.4
27.5°	1139.3	964.5	568.5	175.2	78.8	69.7	63.5	57.3	53.1	50.6	50.3
30°	1135.2	941.7	499.8	114.9	69.7	60.2	52.7	45.7	41.5	39.5	39.5
32.5°	1124.0	912.4	423.8	83.8	61.8	51.9	42.7	36.5	33.7	32.3	32.8
35°	1111.0	881.6	342.8	71.0	55.6	44.0	34.9	29.9	28.6	28.2	28.2
37.5°	1104.1	855.0	265.2	64.4	49.8	36.5	28.6	25.7	24.5	24.5	24.5
40°	1111.9	834.6	196.3	59.3	44.0	30.3	24.0	22.0	21.7	21.7	21.7
42.5°	1145.6	827.6	143.5	55.1	38.1	25.3	20.8	19.1	18.7	19.1	19.1
45°	1211.1	842.9	108.7	51.1	32.8	20.8	17.8	16.6	16.6	17.1	17.1
47.5°	1322.4	882.4	89.3	46.9	27.5	17.5	15.4	14.5	14.5	15.0	15.0
50°	1495.0	955.5	80.1	42.3	22.8	15.0	12.9	12.4	12.4	12.9	13.3
52.5°	1757.3	1094.4	75.5	37.8	18.7	12.4	10.8	10.4	10.8	11.3	11.3
55°	2049.0	1272.6	70.2	33.3	15.8	10.4	8.7	8.7	9.2	10.0	10.0
57.5°	2321.0	1444.4	65.1	27.5	13.6	8.3	7.1	7.1	7.8	8.7	8.7
60°	2608.1	1612.8	58.6	22.0	11.6	6.7	5.8	5.8	7.1	7.8	8.3
62.5°	2963.0	1808.8	49.8	17.5	9.2	5.0	4.2	5.4	6.7	7.8	7.8
65°	3476.0	2052.4	39.0	13.6	7.1	3.8	3.3	5.0	6.2	7.4	7.8
67.5°	3662.4	2021.3	29.5	11.3	5.4	2.9	2.9	4.6	6.2	7.4	7.4
68°	3594.3	1953.2	28.2	10.8	5.0	2.9	2.9	4.6	6.2	7.4	7.4
70°	3131.9	1596.8	23.3	8.3	4.2	2.5	2.5	4.2	6.2	7.1	7.4
72.5°	2345.0	1060.9	19.8	5.4	3.8	2.5	2.0	4.2	5.8	7.1	7.1
75°	1345.2	440.4	17.1	4.2	3.3	2.0	2.0	3.8	5.8	7.1	7.1
77.5°	380.2	102.9	13.6	3.3	2.9	2.0	1.6	3.8	5.4	6.7	6.7
80°	69.7	30.7	10.8	2.9	2.5	2.0	1.6	3.8	5.4	6.7	6.7
82.5°	46.1	14.5	7.8	2.9	2.5	2.0	1.6	3.3	5.0	6.2	6.2
85°	34.4	10.4	5.0	2.9	2.5	2.0	1.6	3.3	5.0	6.2	6.2
87.5°	19.1	4.6	3.8	3.3	2.9	2.0	1.6	2.9	4.6	5.8	5.8
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)