

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: P197035

Luminaire Tested: **NAV-AF-01-D-UNV-SL2-8030-1200-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197035
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-SL2-8030-1200-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 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: 4461 lumens
Efficiency: N/A
Efficacy: 66.6 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 - G1

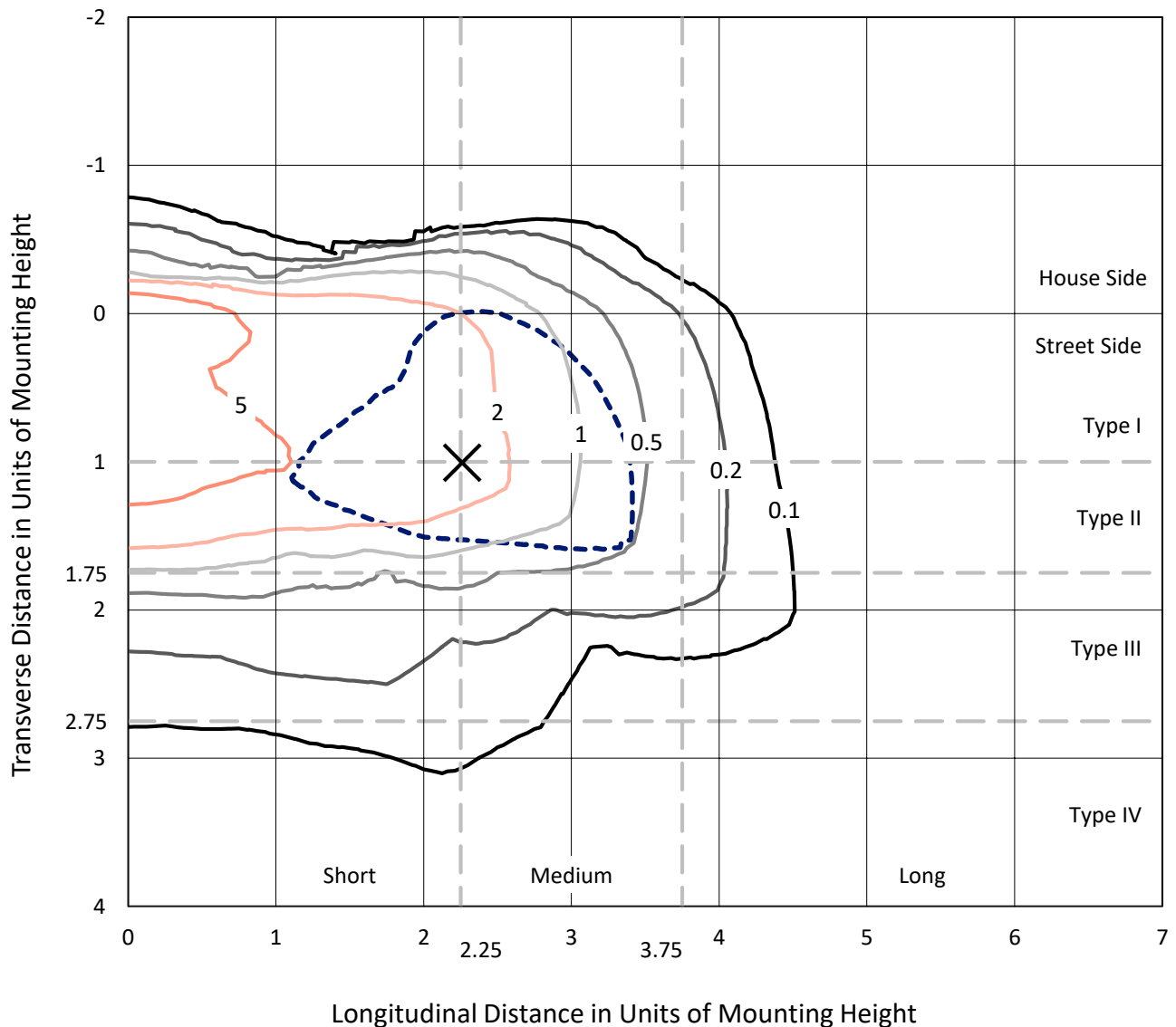
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

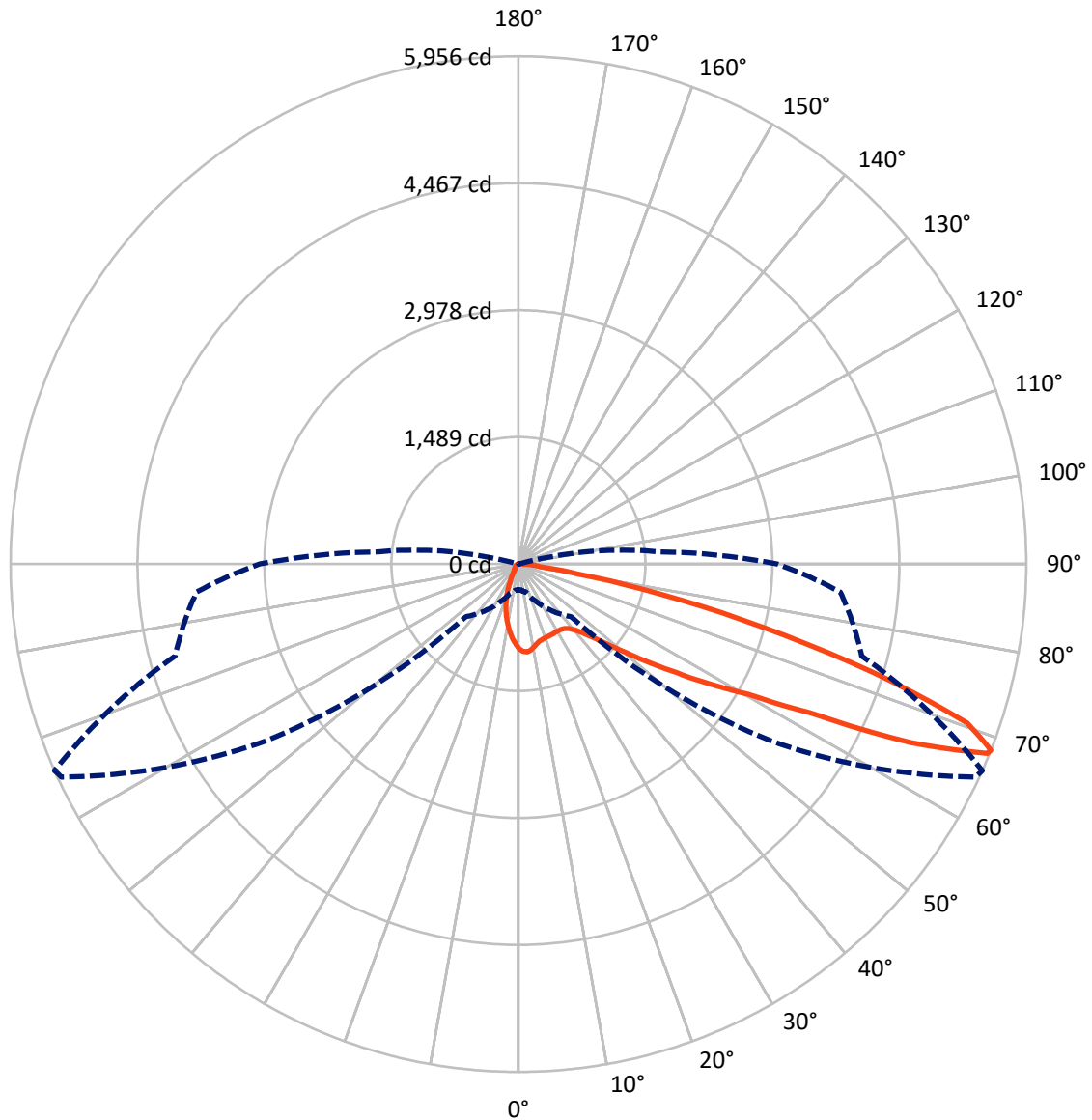


Based on 10 foot mounting height. Maximum calculated value = 9.9 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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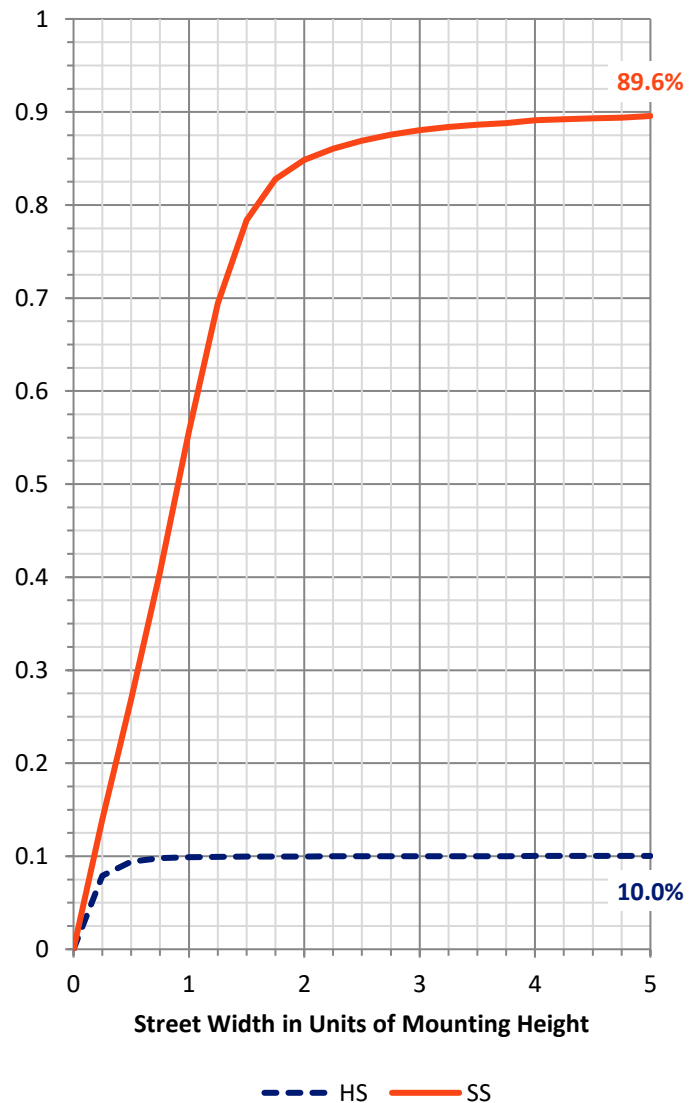
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	451.9	0.0	451.9
	% Fixture	10.1	0.0	10.1
Street Side	Lumens	4009.1	0.0	4009.1
	% Fixture	89.9	0.0	89.9
Total	Lumens	4461.0	0.0	4461.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.5	1.8
10°-20°	175.3	3.9
20°-30°	254.0	5.7
30°-40°	388.9	8.7
40°-50°	665.2	14.9
50°-60°	1040.5	23.3
60°-70°	1198.1	26.9
70°-80°	599.5	13.4
80°-90°	58.1	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°	4461.0	100.0
0°-180°	4461.0	100.0



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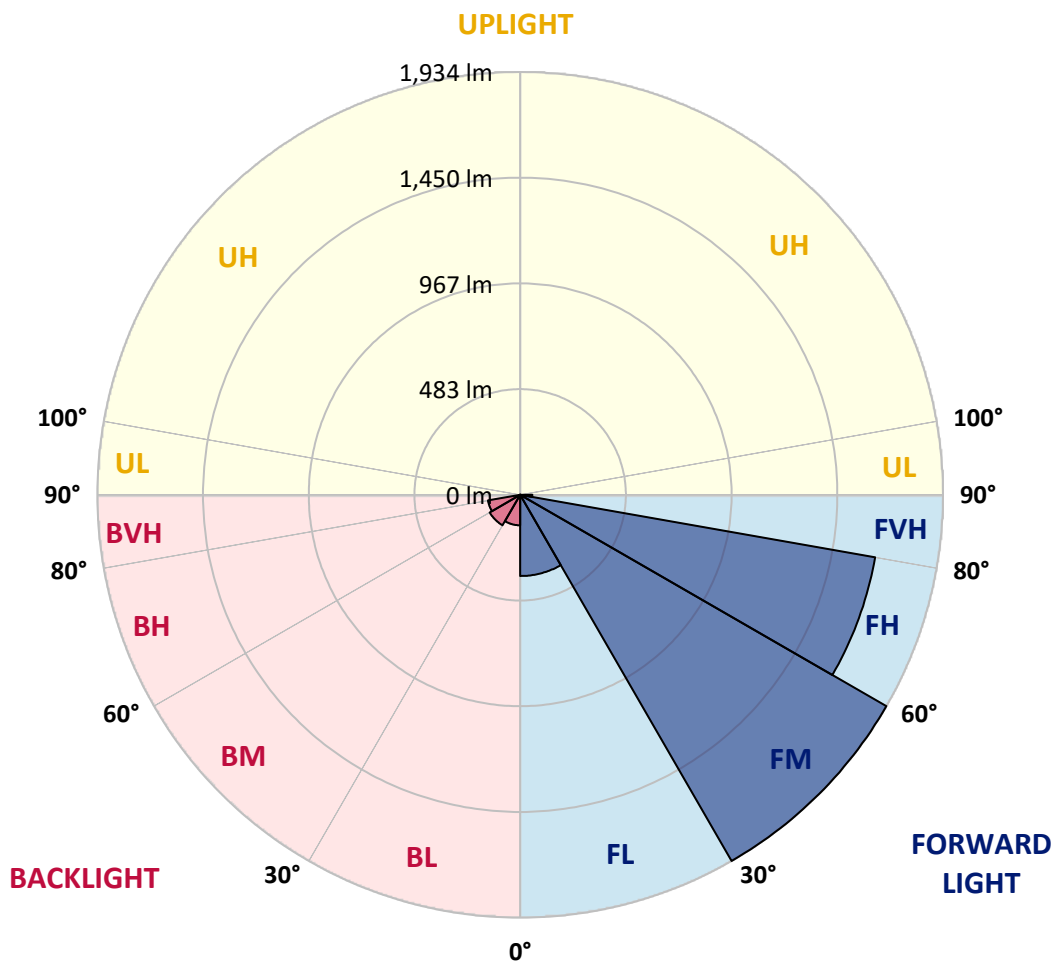
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	371.4	8.3			
FM	(30°-60°)	1933.6	43.3			
FH	(60°-80°)	1648.3	36.9			G1/1800
FVH	(80°-90°)	55.9	1.3			G1/100
BL	(0°-30°)	139.5	3.1	B1/500		
BM	(30°-60°)	160.9	3.6	B0/220		
BH	(60°-80°)	149.3	3.3	B1/500		G1/500
BVH	(80°-90°)	2.2	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-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	993.9	993.9	993.9	993.9	993.9	993.9	993.9	993.9	993.9	993.9	993.9
2.5°	1045.3	1046.0	1045.7	1046.7	1046.0	1040.8	1035.2	1023.3	1024.3	1008.9	991.8
5°	971.8	977.8	983.7	989.7	1004.0	1016.6	1031.7	1035.2	1035.2	1021.9	996.7
7.5°	896.9	897.2	903.9	911.9	931.2	954.3	989.3	1020.8	1021.5	1025.0	997.4
10°	840.5	842.2	846.8	855.5	874.8	897.6	936.8	986.2	990.0	1015.9	990.4
12.5°	796.7	798.8	803.7	813.9	831.4	854.8	896.2	952.5	957.8	1007.2	988.3
15°	763.1	765.9	769.7	779.9	798.8	823.7	868.8	930.1	936.4	1003.7	994.9
17.5°	749.1	749.1	748.7	755.7	774.6	799.9	847.1	918.2	926.3	1006.5	1006.1
20°	755.0	754.0	746.6	744.9	756.4	781.6	830.0	910.5	919.6	1011.7	1019.8
22.5°	786.6	784.4	768.0	754.3	750.8	767.6	818.4	905.3	916.1	1022.6	1038.0
25°	853.4	847.1	824.4	793.6	765.9	764.1	810.4	902.5	914.0	1035.2	1058.0
27.5°	940.3	938.5	902.1	860.8	807.6	775.7	807.9	900.4	911.9	1044.3	1074.1
30°	1048.1	1048.9	1006.8	952.9	872.3	808.3	815.6	899.3	911.2	1045.0	1081.1
32.5°	1159.5	1160.2	1125.2	1067.4	960.9	864.3	837.3	904.2	915.1	1042.2	1080.7
35°	1266.7	1267.7	1246.7	1200.1	1079.3	942.0	878.3	921.0	928.7	1043.9	1080.0
37.5°	1402.2	1406.4	1380.5	1337.1	1227.8	1056.2	945.2	955.0	961.3	1058.3	1085.3
40°	1633.3	1627.7	1553.5	1479.9	1388.9	1195.2	1041.8	1013.5	1015.6	1095.4	1105.2
42.5°	1902.6	1895.6	1768.5	1641.7	1554.5	1363.0	1165.5	1103.1	1102.8	1157.8	1148.7
45°	2134.5	2130.3	1996.5	1827.3	1738.0	1548.2	1317.8	1232.4	1228.2	1265.6	1227.8
47.5°	2299.1	2295.6	2194.4	2024.9	1950.3	1752.1	1508.0	1408.5	1399.8	1406.8	1356.3
50°	2315.2	2311.3	2276.0	2167.0	2198.2	2051.1	1742.9	1639.3	1628.1	1617.2	1550.7
52.5°	2164.6	2164.2	2182.8	2175.8	2371.9	2436.0	2031.2	1924.7	1911.4	1883.7	1817.5
55°	1856.8	1855.0	1925.4	2027.7	2368.1	2833.1	2470.7	2264.4	2246.9	2191.6	2104.7
57.5°	1356.7	1347.6	1494.7	1711.4	2201.7	3006.8	3168.6	2686.4	2657.3	2481.9	2348.1
60°	749.1	752.6	941.7	1198.4	1807.7	2972.5	3810.9	3178.4	3102.1	2732.3	2597.4
62.5°	419.9	428.6	569.4	778.8	1152.5	2694.1	4155.5	4025.2	3841.3	3024.3	2912.6
65°	317.6	322.9	393.6	600.9	726.7	1882.7	4210.5	5209.2	5050.6	3467.0	3414.5
67.5°	299.1	303.3	337.9	498.3	661.9	976.4	3796.5	5909.6	5929.6	4070.7	3803.2
68°	301.2	306.4	341.1	479.4	660.8	873.4	3620.0	5913.1	5955.5	4168.1	3789.9
70°	276.7	278.1	360.7	470.3	640.5	688.1	2618.8	5508.0	5583.9	4284.0	3440.4
72.5°	105.8	106.1	161.8	407.3	671.0	692.0	1319.2	4353.3	4357.2	3728.2	2682.2
75°	55.0	46.2	50.8	127.5	640.9	674.5	661.9	2972.5	2953.9	2521.4	1643.5
77.5°	37.8	32.2	34.0	44.1	266.5	674.1	478.0	1709.3	1705.5	1072.7	468.9
80°	21.4	18.6	20.3	37.1	93.5	632.8	445.5	734.7	692.3	188.4	76.0
82.5°	10.9	9.1	10.9	31.2	58.1	398.2	433.2	288.2	256.7	44.8	49.4
85°	2.8	2.8	5.3	21.7	36.1	130.6	388.4	208.0	187.0	19.6	35.0
87.5°	0.7	0.4	2.1	8.1	13.0	28.4	215.4	115.9	99.8	10.2	20.3
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°	993.9	993.9	993.9	993.9	993.9	993.9	993.9	993.9	993.9	993.9	993.9
2.5°	984.8	975.0	955.7	934.0	918.6	901.8	892.0	880.1	870.9	862.9	868.8
5°	981.3	962.4	919.6	871.6	831.4	792.9	764.1	736.8	716.2	703.2	708.5
7.5°	972.2	944.1	874.8	799.9	734.0	672.0	621.6	576.4	541.4	522.5	528.5
10°	956.7	917.2	824.0	720.0	627.9	540.4	465.4	398.2	347.4	323.6	329.2
12.5°	945.5	893.4	771.5	643.0	521.8	397.5	298.0	221.0	181.4	157.6	159.7
15°	940.6	874.8	722.5	561.7	405.9	255.3	161.1	116.6	103.0	98.1	98.4
17.5°	941.3	860.1	675.9	477.3	288.9	146.7	98.8	89.0	86.8	85.8	85.8
20°	943.1	845.4	627.6	389.4	184.9	94.6	82.3	79.1	78.1	76.7	77.0
22.5°	948.3	834.2	578.9	301.2	113.8	77.0	72.8	70.0	68.3	66.2	66.5
25°	956.4	825.8	530.9	216.8	80.2	67.2	63.4	59.5	56.4	53.9	54.3
27.5°	961.3	813.9	479.8	147.8	66.5	58.8	53.6	48.3	44.8	42.7	42.4
30°	957.8	794.6	421.6	97.0	58.8	50.8	44.5	38.5	35.0	33.3	33.3
32.5°	948.3	769.7	357.6	70.7	52.2	43.8	36.1	30.8	28.4	27.3	27.7
35°	937.5	743.8	289.3	59.9	46.9	37.1	29.4	25.2	24.2	23.8	23.8
37.5°	931.5	721.4	223.8	54.3	42.0	30.8	24.2	21.7	20.7	20.7	20.7
40°	938.2	704.3	165.6	50.1	37.1	25.6	20.3	18.6	18.2	18.2	18.2
42.5°	966.6	698.3	121.2	46.6	32.2	21.4	17.5	16.1	15.8	16.1	16.1
45°	1021.9	711.3	91.8	43.1	27.7	17.5	15.1	14.0	14.0	14.4	14.4
47.5°	1115.7	744.5	75.3	39.6	23.1	14.7	13.0	12.3	12.3	12.6	12.6
50°	1261.4	806.2	67.6	35.7	19.3	12.6	10.9	10.5	10.5	10.9	11.2
52.5°	1482.7	923.5	63.7	31.9	15.8	10.5	9.1	8.8	9.1	9.5	9.5
55°	1728.9	1073.7	59.2	28.0	13.3	8.8	7.4	7.4	7.7	8.4	8.4
57.5°	1958.3	1218.7	55.0	23.1	11.6	7.0	6.0	6.0	6.7	7.4	7.4
60°	2200.7	1360.9	49.4	18.6	9.8	5.6	4.9	4.9	6.0	6.7	7.0
62.5°	2500.1	1526.2	42.0	14.7	7.7	4.2	3.5	4.6	5.6	6.7	6.7
65°	2932.9	1731.7	32.9	11.6	6.0	3.2	2.8	4.2	5.3	6.3	6.7
67.5°	3090.2	1705.5	24.9	9.5	4.6	2.5	2.5	3.9	5.3	6.3	6.3
68°	3032.7	1648.0	23.8	9.1	4.2	2.5	2.5	3.9	5.3	6.3	6.3
70°	2642.6	1347.2	19.6	7.0	3.5	2.1	2.1	3.5	5.3	6.0	6.3
72.5°	1978.6	895.1	16.8	4.6	3.2	2.1	1.8	3.5	4.9	6.0	6.0
75°	1135.0	371.6	14.4	3.5	2.8	1.8	1.8	3.2	4.9	6.0	6.0
77.5°	320.8	86.8	11.6	2.8	2.5	1.8	1.4	3.2	4.6	5.6	5.6
80°	58.8	25.9	9.1	2.5	2.1	1.8	1.4	3.2	4.6	5.6	5.6
82.5°	38.9	12.3	6.7	2.5	2.1	1.8	1.4	2.8	4.2	5.3	5.3
85°	29.1	8.8	4.2	2.5	2.1	1.8	1.4	2.8	4.2	5.3	5.3
87.5°	16.1	3.9	3.2	2.8	2.5	1.8	1.4	2.5	3.9	4.9	4.9
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)