

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: P196513

Luminaire Tested: **NAV-AF-01-D-UNV-RW-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196513
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)
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-RW-7030-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3978.1 lumens
Efficiency: N/A
Efficacy: 117.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 34
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

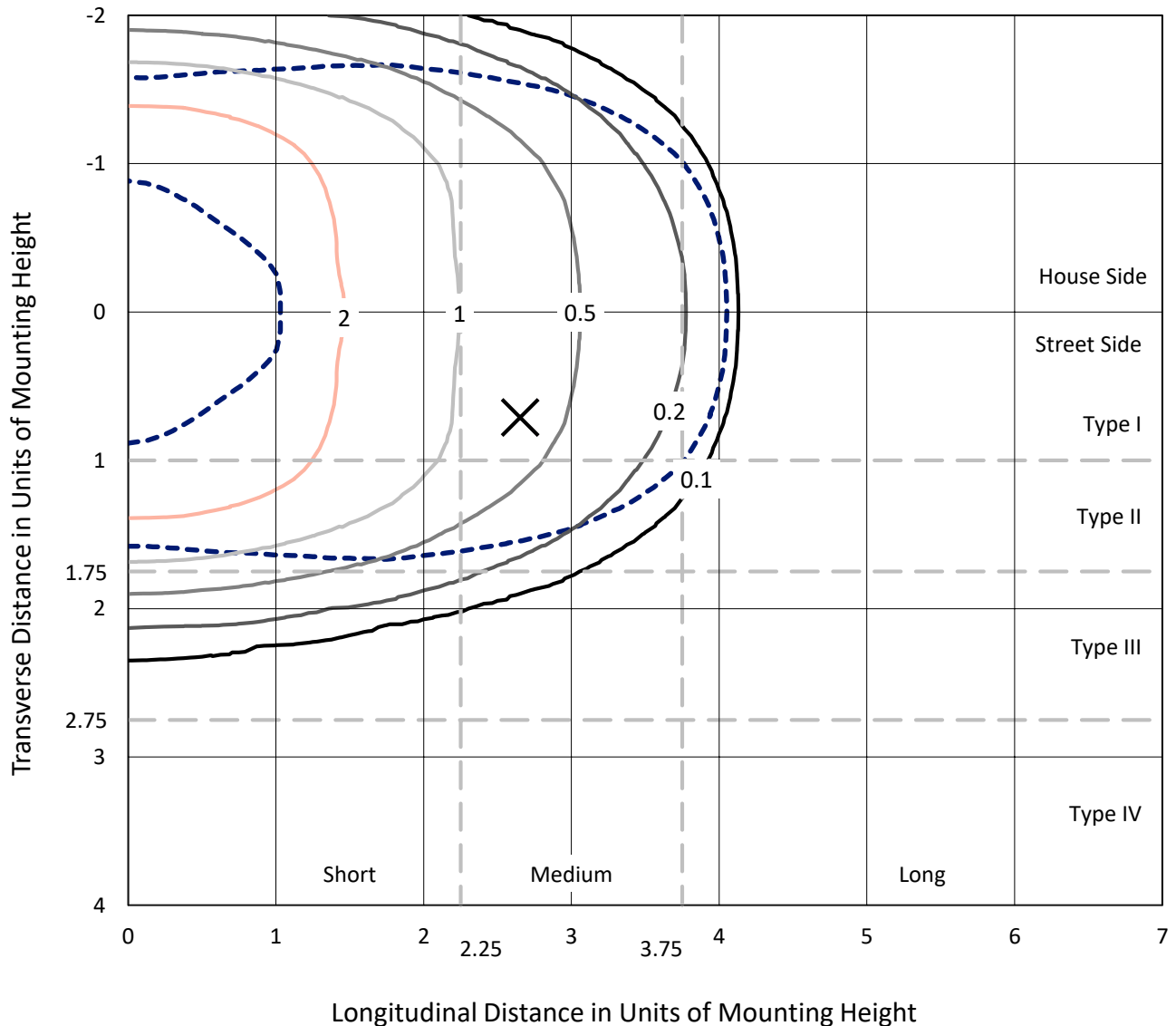


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Iso-Footcandle Lines of Horizontal Illumination

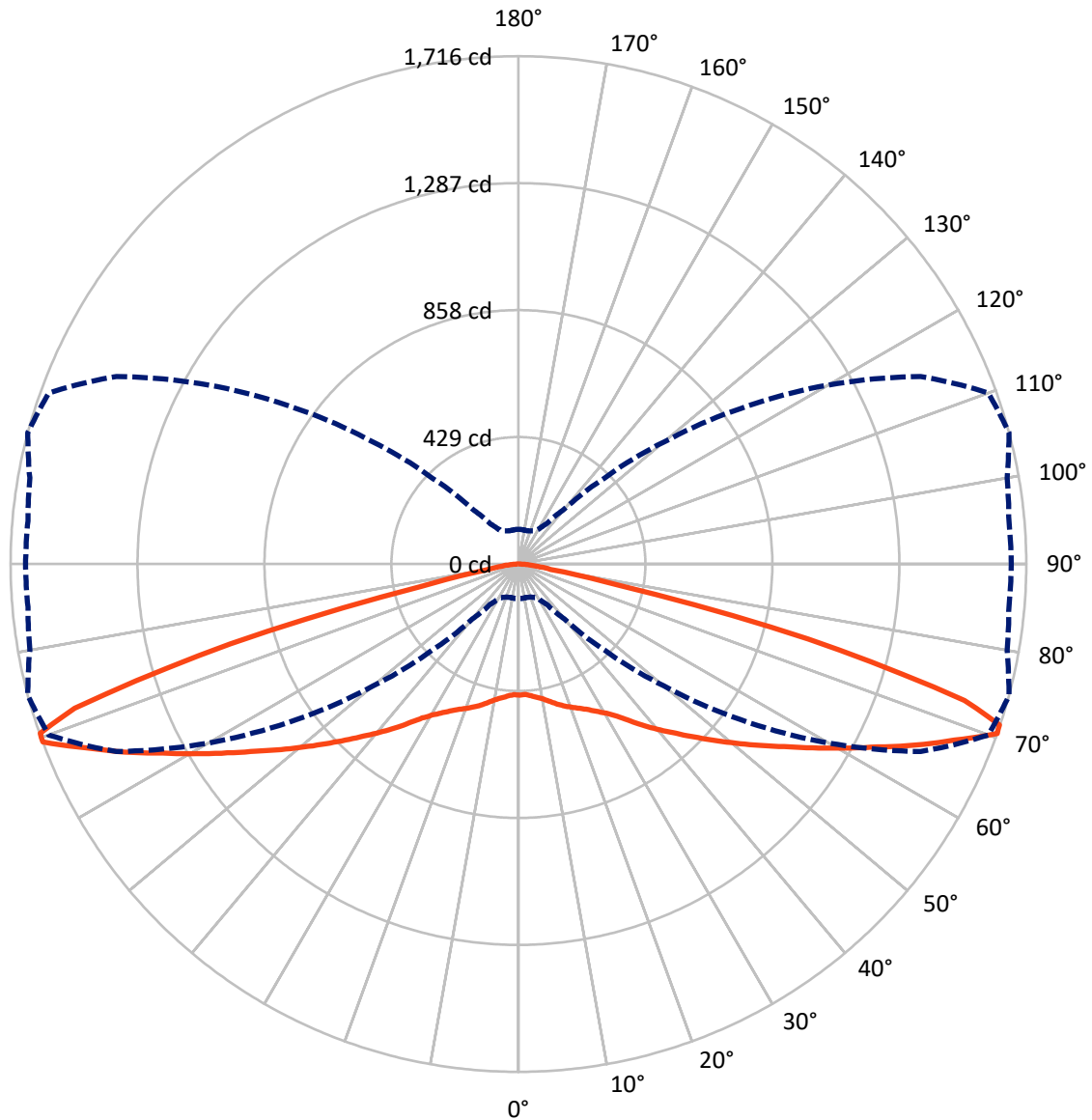
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.5 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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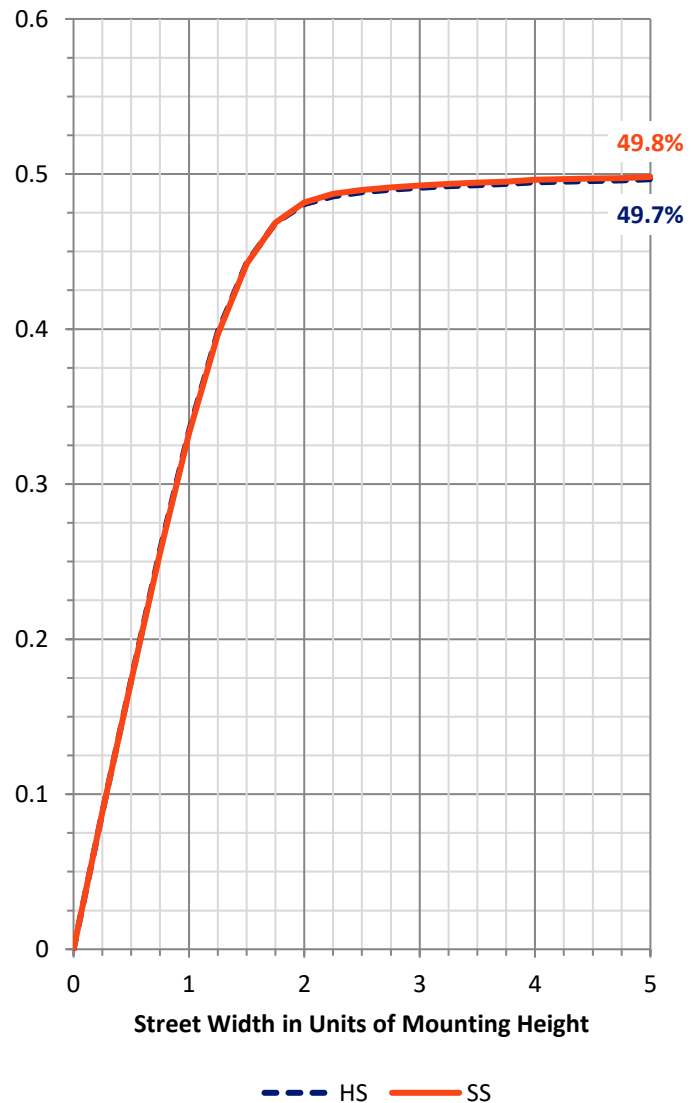
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1989.1	0.0	1989.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	1989.1	0.0	1989.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	3978.1	0.0	3978.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.5	1.1
10°-20°	131.8	3.3
20°-30°	247.5	6.2
30°-40°	436.0	11.0
40°-50°	722.6	18.2
50°-60°	1005.2	25.3
60°-70°	948.9	23.9
70°-80°	405.3	10.2
80°-90°	38.3	1.0
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°	3978.1	100.0
0°-180°	3978.1	100.0

Coefficient of Utilization



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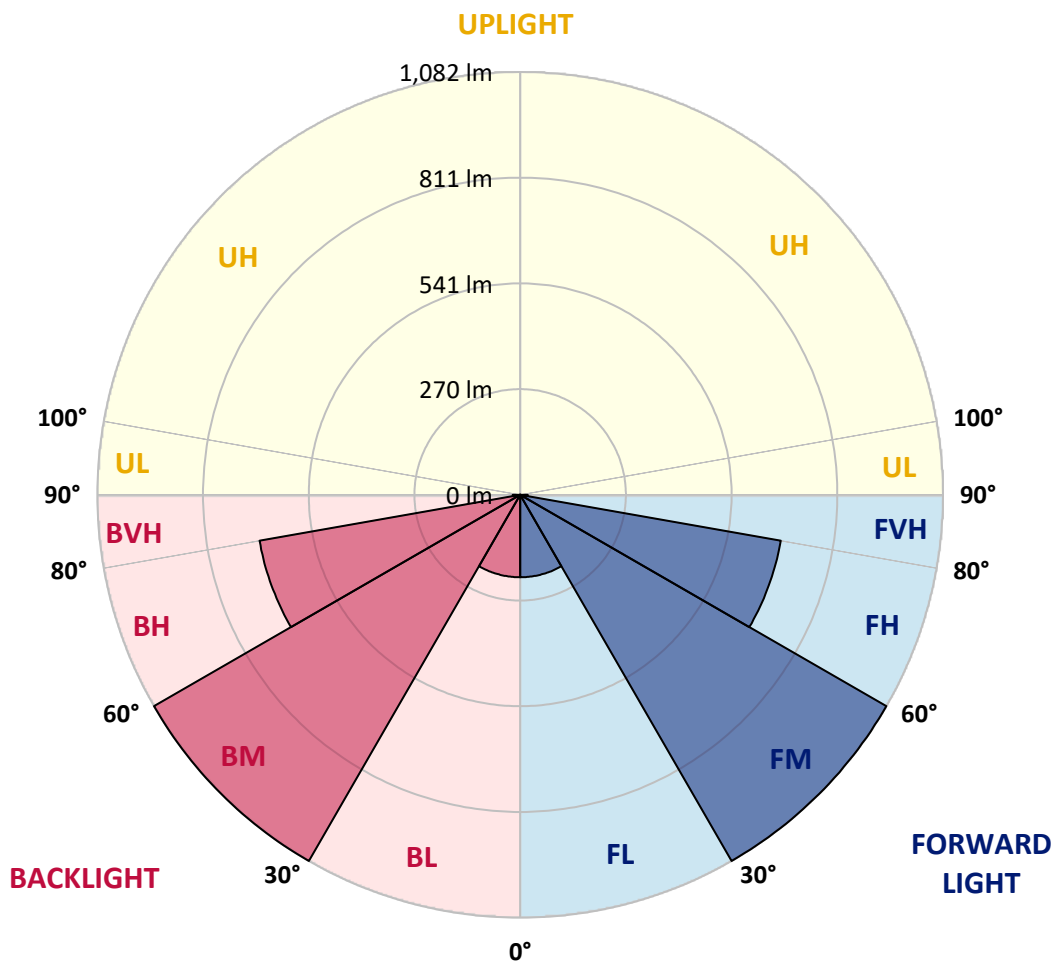
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	210.9	5.3			
FM	(30°-60°)	1081.9	27.2			
FH	(60°-80°)	677.1	17.0			G1/1800
FVH	(80°-90°)	19.2	0.5			G1/100
BL	(0°-30°)	210.9	5.3	B1/500		
BM	(30°-60°)	1081.9	27.2	B2/2500		
BH	(60°-80°)	677.1	17.0	B2/1000		G2/1000
BVH	(80°-90°)	19.2	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
2.5°	445.8	445.4	445.8	445.0	445.2	445.0	445.0	444.0	444.0	443.5	442.7
5°	440.8	441.3	441.3	441.3	442.0	442.0	443.0	443.3	444.0	444.8	445.2
7.5°	432.5	432.7	433.5	434.0	435.5	437.5	439.6	441.7	443.7	446.3	448.9
10°	425.6	426.0	427.3	428.6	431.2	433.8	437.2	440.8	444.2	448.5	452.8
12.5°	421.8	422.7	424.6	426.5	430.8	434.0	438.7	444.2	448.9	453.0	457.7
15°	422.3	422.7	425.3	428.1	434.0	438.5	445.2	451.7	457.5	461.9	467.4
17.5°	429.5	430.1	432.7	436.8	442.5	448.3	455.5	462.1	470.0	475.2	481.7
20°	443.7	444.4	447.5	451.7	458.1	464.0	471.5	478.4	486.4	492.6	499.1
22.5°	462.1	463.5	466.6	471.9	478.1	485.4	493.1	500.3	507.8	514.1	519.5
25°	486.9	488.4	491.8	497.1	503.3	511.2	519.1	526.5	534.3	538.9	543.4
27.5°	520.1	522.5	526.3	530.5	536.0	544.2	551.6	557.9	565.4	570.7	573.6
30°	564.7	568.1	571.1	575.6	579.6	588.4	594.4	599.3	605.1	608.0	608.8
32.5°	619.3	622.4	625.5	628.7	634.2	642.2	647.9	650.6	653.7	653.2	650.4
35°	680.8	683.3	685.0	690.8	699.8	705.0	709.2	710.3	710.7	705.5	700.3
37.5°	745.7	748.7	750.2	759.2	767.5	773.5	775.5	777.8	776.3	767.5	758.1
40°	815.7	818.9	823.5	831.1	841.2	846.9	849.4	849.2	847.9	837.7	822.1
42.5°	884.6	888.5	892.2	905.6	914.0	923.7	924.9	924.7	921.9	910.2	892.2
45°	942.8	947.6	955.4	970.2	983.5	995.3	999.9	1001.7	998.9	986.5	966.1
47.5°	991.0	994.1	1003.9	1022.1	1039.0	1056.3	1065.8	1072.5	1072.3	1063.3	1041.6
50°	1023.9	1027.6	1039.6	1060.1	1081.2	1101.5	1120.1	1135.3	1142.6	1136.1	1115.9
52.5°	1033.4	1038.1	1053.8	1078.2	1102.9	1130.1	1158.0	1184.9	1201.1	1205.1	1189.4
55°	993.5	998.7	1021.6	1055.6	1096.2	1136.3	1178.7	1217.0	1250.5	1266.0	1259.8
57.5°	877.3	881.0	910.2	954.1	1012.2	1082.6	1154.0	1224.4	1281.6	1321.8	1328.8
60°	693.8	698.5	730.4	776.9	842.8	932.1	1031.9	1147.0	1259.4	1351.4	1397.1
62.5°	468.1	471.5	502.0	544.4	616.8	702.7	814.0	959.9	1120.1	1284.4	1413.0
65°	245.9	245.9	266.5	296.2	353.8	430.8	544.7	694.4	885.0	1090.2	1305.3
67.5°	142.6	142.4	147.1	153.8	172.0	203.2	266.0	376.0	556.4	795.3	1040.0
70°	117.7	116.9	116.2	116.2	118.9	123.7	135.6	165.7	242.5	410.0	639.9
71°	112.4	111.9	110.0	109.2	110.5	113.0	118.2	132.1	172.3	279.7	477.9
72.5°	106.2	105.0	101.9	100.7	100.9	101.9	103.5	108.9	121.2	159.1	272.5
75°	96.7	93.8	90.0	88.3	87.5	87.3	87.3	88.7	91.4	95.9	111.7
77.5°	85.8	81.5	77.6	75.8	74.6	73.8	73.3	72.3	71.8	73.8	79.5
80°	72.5	68.1	64.8	63.8	63.1	61.6	59.5	57.6	56.4	57.4	60.8
82.5°	56.0	51.6	52.1	52.3	51.2	48.6	46.7	44.4	42.2	41.6	43.3
85°	44.6	42.4	40.9	44.1	41.4	38.4	35.6	31.9	26.7	22.0	23.9
87.5°	19.2	19.4	28.0	42.2	36.9	29.7	24.7	20.0	12.7	9.5	9.8
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
2.5°	442.5	442.5	441.7	441.3	441.3	441.3	440.8	441.0
5°	445.4	446.0	446.6	446.3	447.0	447.8	447.5	447.2
7.5°	450.4	452.0	453.4	454.2	455.2	456.2	456.4	455.7
10°	455.5	458.5	460.7	462.7	464.0	464.9	465.7	465.5
12.5°	461.7	466.0	470.0	473.9	476.7	478.1	479.6	479.1
15°	471.9	476.7	481.7	486.9	491.1	493.5	495.6	495.1
17.5°	485.8	490.1	494.1	499.4	504.6	507.1	509.5	509.3
20°	503.3	506.5	508.8	511.8	516.8	519.5	521.8	521.0
22.5°	523.3	524.2	524.6	525.5	529.5	532.7	535.7	536.5
25°	544.9	544.2	542.7	541.9	544.7	548.2	552.0	553.0
27.5°	571.9	569.4	565.6	562.6	563.4	567.9	572.2	573.2
30°	605.9	600.1	592.0	586.4	585.3	590.1	594.6	596.1
32.5°	644.4	636.8	625.7	617.0	613.3	617.6	621.4	623.8
35°	690.3	681.8	668.6	657.4	651.4	654.1	661.1	663.6
37.5°	744.6	732.9	718.3	704.0	694.1	694.6	702.0	705.0
40°	804.7	787.8	769.0	751.3	737.0	736.0	742.6	744.9
42.5°	867.3	845.6	823.7	800.6	782.6	779.3	788.1	788.3
45°	934.6	906.8	879.5	852.6	833.8	828.1	836.6	837.7
47.5°	1006.4	971.6	939.4	910.2	890.0	881.0	889.3	890.8
50°	1081.2	1045.1	1007.7	975.2	951.5	940.6	950.3	951.3
52.5°	1155.2	1121.1	1084.0	1046.8	1018.2	1005.6	1017.1	1020.6
55°	1229.8	1196.9	1162.0	1124.9	1088.7	1077.8	1090.2	1093.9
57.5°	1307.3	1275.7	1244.0	1206.7	1171.5	1154.8	1168.2	1173.5
60°	1392.8	1364.8	1335.0	1297.4	1262.7	1243.3	1254.8	1260.8
62.5°	1476.8	1471.0	1444.0	1404.7	1361.0	1341.4	1351.2	1355.5
65°	1483.8	1576.8	1575.5	1536.6	1475.3	1442.7	1445.4	1447.4
67.5°	1295.2	1508.6	1644.9	1657.1	1588.7	1537.8	1531.7	1532.9
70°	916.9	1209.8	1499.2	1689.2	1716.1	1676.6	1663.6	1665.5
71°	734.7	1038.1	1356.7	1612.2	1714.2	1702.7	1695.4	1700.7
72.5°	468.9	764.9	1075.0	1380.6	1576.3	1632.5	1640.6	1644.0
75°	170.2	329.1	556.9	798.0	1011.4	1158.2	1239.0	1245.4
77.5°	91.4	117.9	182.3	272.3	342.1	379.4	383.9	385.6
80°	67.3	78.0	89.3	101.9	110.0	111.5	108.7	102.9
82.5°	47.6	53.9	58.4	62.9	66.1	63.4	52.6	40.1
85°	27.7	30.4	32.9	35.2	35.6	33.7	22.2	18.2
87.5°	10.9	12.0	11.7	13.2	12.7	11.7	8.7	7.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)