

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: P967150

Luminaire Tested: **NAV-SB4D-727-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967150
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-727-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29357 lumens
Efficiency: N/A
Efficacy: 100.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G5

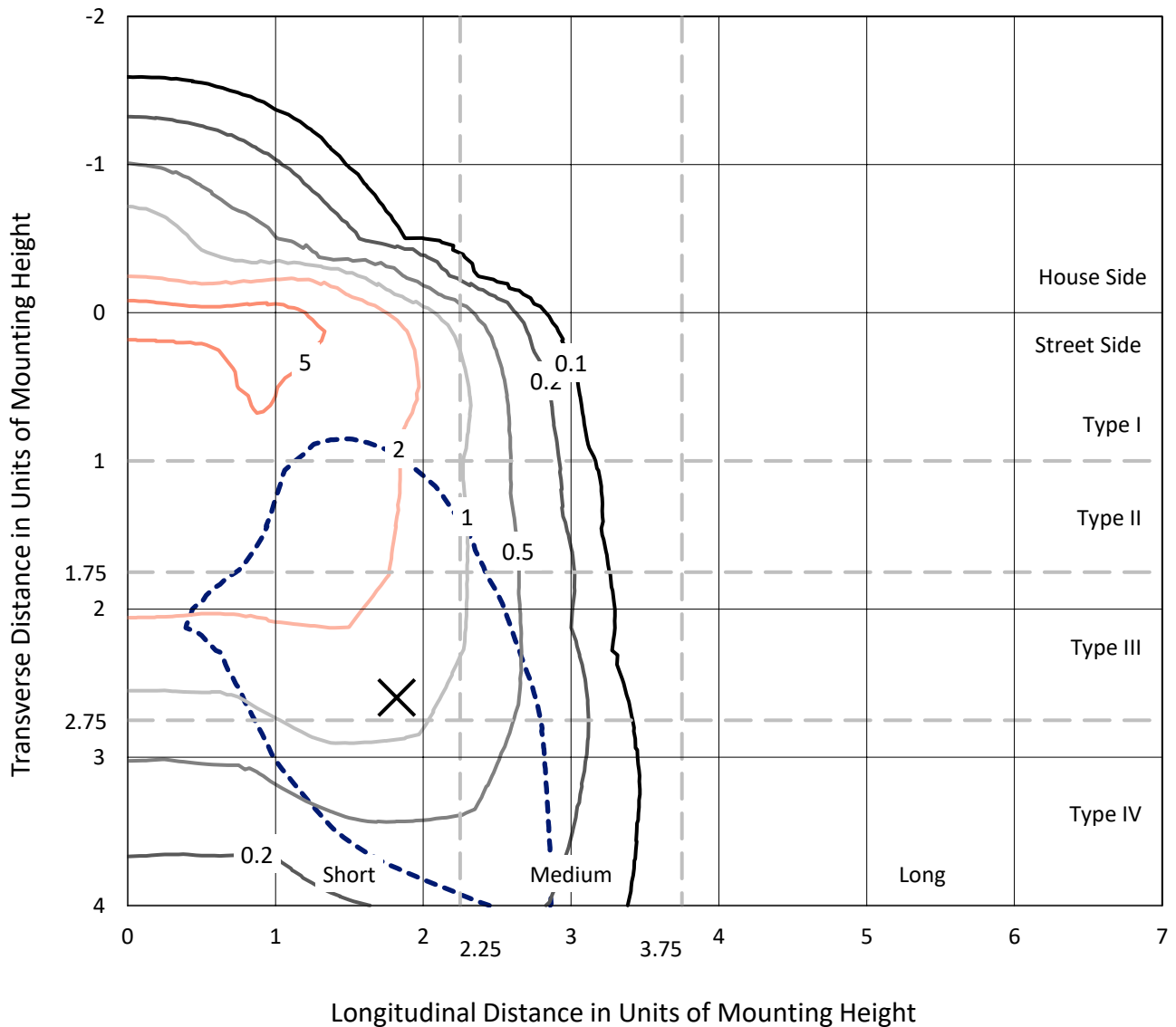
Input Watts (W): 293.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P967150
 CATALOG NUMBER: NAV-SB4D-727-U-T4FT-HSS

Iso-Footcandle Lines of Horizontal Illumination

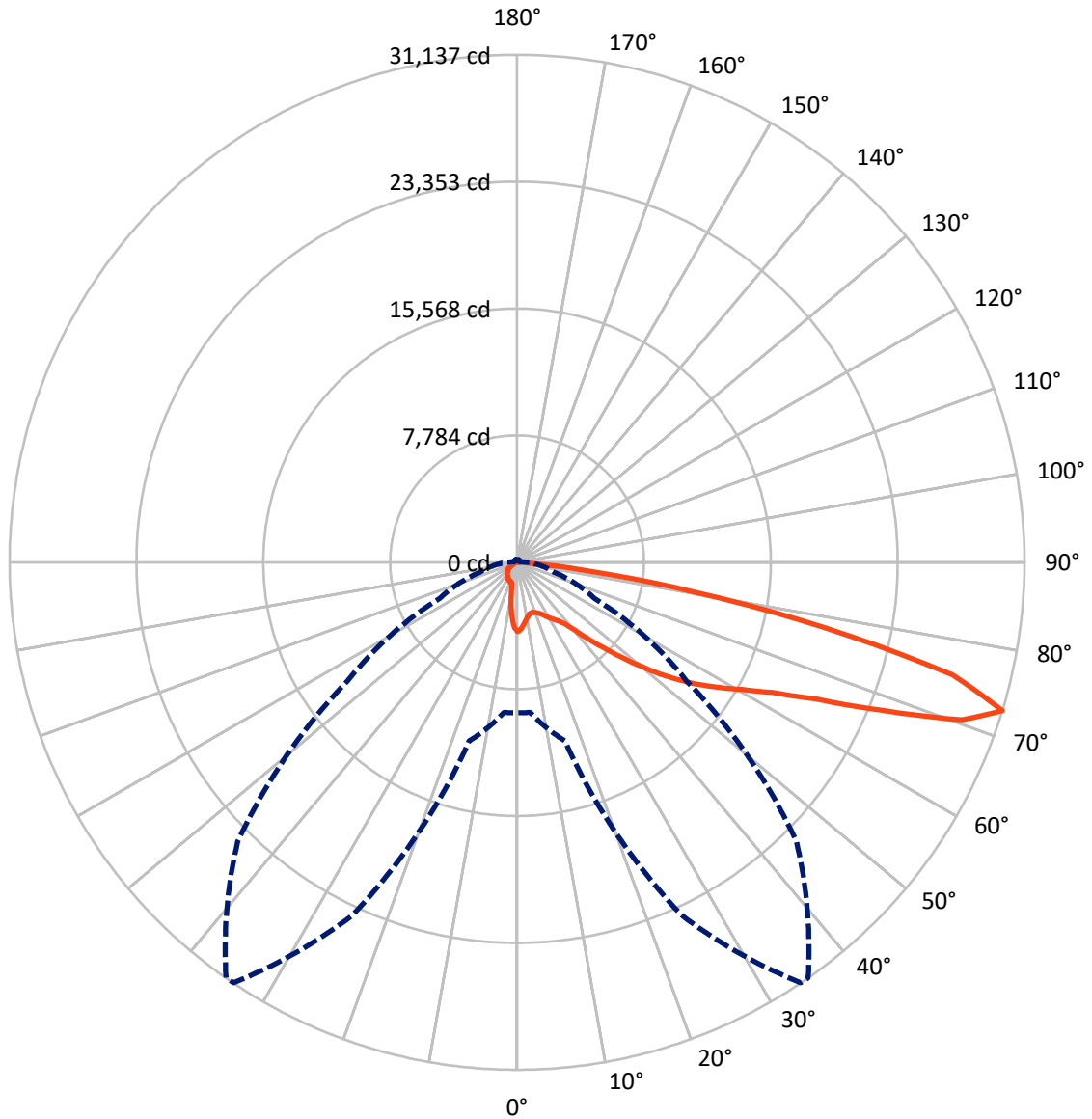
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 fc
 Type IV - Short - N/A

REPORT NUMBER: P967150
CATALOG NUMBER: NAV-SB4D-727-U-T4FT-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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 CATALOG NUMBER: NAV-SB4D-727-U-T4FT-HSS

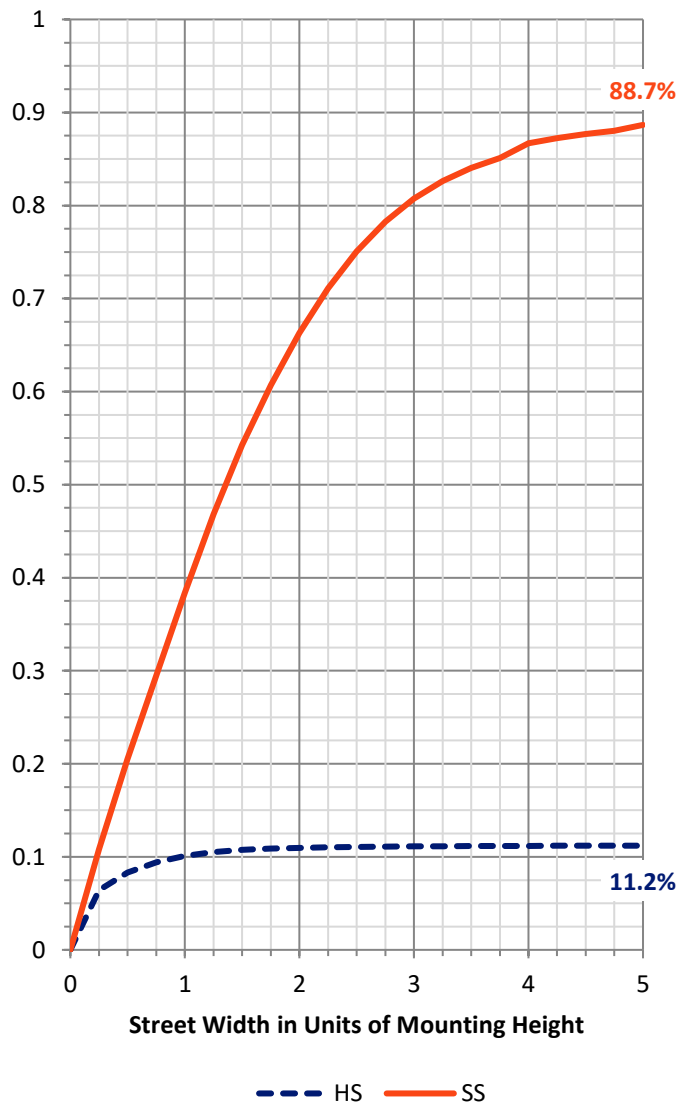
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3304.0	0.0	3304.0
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	26053.0	0.0	26053.0
	% Fixture	88.7	0.0	88.7
Total	Lumens	29357.0	0.0	29357.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	349.6	1.2
10°-20°	817.9	2.8
20°-30°	1328.7	4.5
30°-40°	2216.9	7.6
40°-50°	4194.5	14.3
50°-60°	6665.0	22.7
60°-70°	8245.0	28.1
70°-80°	5125.2	17.5
80°-90°	414.2	1.4
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°	29357.0	100.0
0°-180°	29357.0	100.0

Coefficient of Utilization



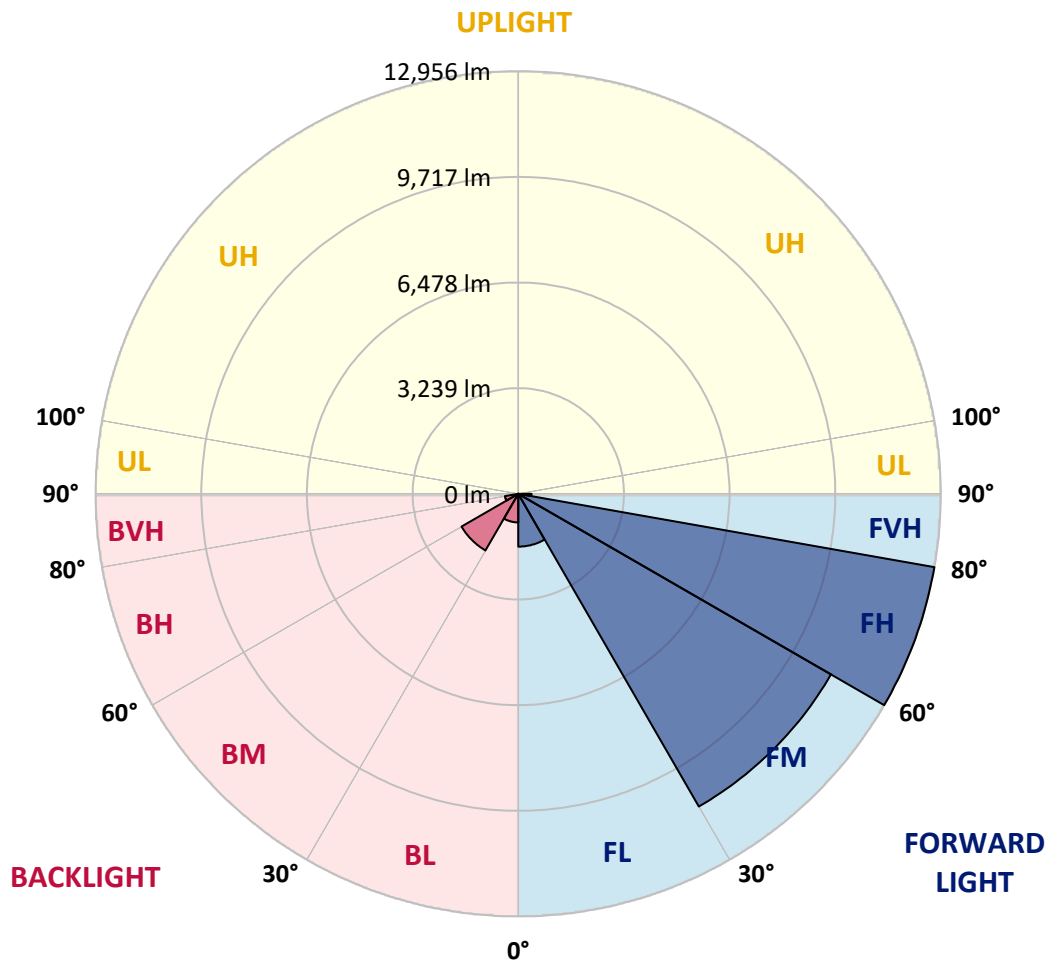
REPORT NUMBER: P967150
 CATALOG NUMBER: NAV-SB4D-727-U-T4FT-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1618.3	5.5			
FM (30°-60°)	11070.5	37.7			
FH (60°-80°)	12955.6	44.1			G5
FVH (80°-90°)	408.6	1.4			G3/500
BL (0°-30°)	877.9	3.0	B2/1000		
BM (30°-60°)	2005.8	6.8	B2/2500		
BH (60°-80°)	414.6	1.4	B1/500		G1/500
BVH (80°-90°)	5.6	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G5

Type IV Short



REPORT NUMBER: P967150
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	4254.8	4254.8	4254.8	4254.8	4254.8	4254.8	4254.8	4254.8	4254.8	4254.8	4254.8
2.5°	4065.6	4099.9	4106.4	4117.1	4117.1	4130.0	4151.6	4181.7	4231.2	4256.9	4274.1
5°	3747.2	3773.0	3805.2	3831.0	3880.5	3887.0	3970.8	4052.6	4166.6	4252.6	4312.9
7.5°	3426.7	3456.8	3499.8	3562.2	3626.7	3646.0	3773.0	3910.7	4091.3	4252.6	4353.8
10°	3200.8	3202.9	3241.7	3304.1	3407.3	3431.0	3585.9	3781.5	4007.4	4226.9	4392.5
12.5°	3073.9	3088.9	3106.2	3153.5	3252.4	3267.5	3433.1	3663.2	3923.6	4211.8	4437.6
15°	3073.9	3084.6	3095.4	3119.1	3198.6	3211.5	3357.8	3588.0	3880.5	4218.3	4510.8
17.5°	3106.2	3123.4	3114.8	3142.8	3226.6	3235.2	3364.3	3566.5	3878.4	4259.1	4622.6
20°	3183.5	3196.5	3179.2	3196.5	3280.4	3297.6	3431.0	3607.4	3915.0	4330.1	4762.5
22.5°	3306.2	3312.7	3271.8	3284.7	3370.7	3392.2	3547.1	3723.5	4003.1	4444.1	4949.6
25°	3461.1	3473.9	3411.6	3426.7	3508.4	3534.2	3712.8	3897.8	4142.9	4601.1	5188.3
27.5°	3639.6	3646.0	3592.3	3590.2	3695.5	3732.1	3912.8	4112.8	4330.1	4799.0	5489.5
30°	3844.0	3863.3	3811.7	3803.1	3936.4	3966.5	4145.1	4377.5	4605.4	5095.9	5917.6
32.5°	4005.3	4020.4	3990.2	4011.7	4147.3	4170.9	4426.9	4751.7	5037.8	5517.5	6500.5
35°	4237.7	4246.2	4177.4	4216.1	4371.0	4431.2	4812.0	5276.6	5582.0	6046.7	7262.0
37.5°	5078.7	5078.7	4786.1	4594.7	4743.1	4796.9	5338.9	5937.0	6253.1	6756.5	8221.4
40°	6242.5	6223.1	5794.9	5403.5	5384.1	5489.5	6089.7	6769.4	7120.1	7608.4	9301.3
42.5°	7483.5	7453.5	6870.5	6483.3	6418.8	6455.3	6956.6	7795.4	8152.5	8647.3	10462.8
45°	8584.9	8576.3	8042.9	7522.3	7406.1	7522.3	8038.6	8995.8	9251.8	9772.3	11622.3
47.5°	9507.7	9507.7	9118.4	8778.5	8718.2	8787.1	9503.4	10327.3	10303.6	10970.5	12751.5
50°	10570.3	10561.8	10191.8	10045.5	10107.8	10204.7	11189.8	11729.8	11392.1	12147.1	13760.4
52.5°	11314.7	11366.2	11239.3	11215.7	11534.0	11701.8	12902.1	13102.2	12366.5	13263.5	14515.4
55°	11904.0	11964.2	12110.5	12276.1	12889.2	13108.6	14560.6	14403.6	13181.8	14231.5	14949.9
57.5°	12738.6	12652.6	12878.4	13205.4	14197.1	14461.6	16167.4	15631.9	13837.8	15016.7	14997.3
60°	13751.8	13764.7	13803.4	14216.4	15502.7	15842.6	17750.6	16793.4	14259.5	15498.5	14472.4
62.5°	14969.3	14988.7	15068.2	15702.8	17255.9	17576.4	19437.1	17744.2	14453.0	15362.9	13117.2
65°	14885.4	14967.2	15855.5	18026.0	19921.1	20237.3	21405.3	18411.0	14160.5	14123.9	10680.1
67.5°	13560.3	13693.7	15180.1	20800.8	23939.3	24292.0	23784.4	18542.2	12897.8	10983.4	6967.3
70°	11822.2	11869.6	13657.1	23296.1	28592.1	28949.1	25913.9	17098.8	9787.4	6126.2	3121.2
72.5°	9232.4	9243.1	11340.4	23874.7	31117.4	31136.7	24242.6	12693.5	5263.7	2353.3	1084.1
75°	6595.2	6530.7	7595.5	19361.7	27376.6	27596.1	18174.4	5954.1	2011.3	1112.1	539.9
77.5°	3536.4	3607.4	4297.8	11482.5	18912.2	19286.5	9916.5	1716.6	1023.9	757.2	357.1
80°	1092.8	1153.0	1761.8	5257.2	10712.4	10938.2	3676.2	763.6	714.1	539.9	234.4
82.5°	344.2	357.1	821.7	2209.2	4446.2	4549.6	1064.8	432.3	488.3	357.1	137.7
85°	98.9	101.1	365.7	823.9	1099.2	1120.7	299.0	167.8	279.6	221.6	71.0
87.5°	10.8	34.4	137.7	137.7	96.8	94.6	32.3	36.6	79.5	28.0	12.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P967150
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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4254.8	4254.8	4254.8	4254.8	4254.8	4254.8	4254.8	4254.8	4254.8	4254.8	4254.8
2.5°	4263.4	4265.5	4237.7	4190.3	4138.6	4095.6	4041.9	3998.8	3968.7	3960.1	3975.2
5°	4293.5	4278.5	4198.9	4054.8	3882.7	3734.3	3568.6	3437.4	3351.3	3314.8	3327.7
7.5°	4338.7	4295.7	4121.4	3837.5	3508.4	3215.8	2919.0	2688.9	2542.6	2469.4	2480.2
10°	4377.5	4291.4	3992.4	3523.4	3020.1	2577.0	2176.9	1899.4	1744.6	1671.4	1673.5
12.5°	4414.0	4289.2	3824.6	3151.4	2469.4	1927.4	1555.2	1417.6	1374.5	1359.5	1355.2
15°	4482.8	4295.7	3613.8	2725.4	1921.0	1456.3	1320.7	1318.6	1327.2	1322.9	1320.7
17.5°	4577.4	4302.1	3375.0	2273.7	1482.0	1284.2	1277.8	1297.1	1310.1	1303.6	1301.4
20°	4700.1	4328.0	3121.2	1826.2	1273.5	1241.2	1256.2	1273.5	1284.2	1273.5	1271.3
22.5°	4872.1	4373.2	2843.8	1467.0	1206.7	1215.3	1228.3	1247.6	1258.4	1243.3	1241.2
25°	5083.0	4444.1	2570.5	1275.6	1174.4	1185.2	1204.6	1226.1	1239.0	1224.0	1221.8
27.5°	5356.1	4558.1	2318.9	1232.6	1142.3	1148.7	1176.6	1208.9	1226.1	1206.7	1206.7
30°	5752.0	4745.2	2101.6	1251.9	1122.9	1107.8	1146.6	1191.7	1211.0	1193.8	1191.7
32.5°	6276.8	5009.9	1968.2	1282.1	1114.3	1060.5	1097.1	1155.2	1187.4	1176.6	1176.6
35°	6965.2	5412.1	1916.6	1316.4	1107.8	1011.0	1036.8	1099.2	1155.2	1165.8	1165.8
37.5°	7799.7	5971.3	1931.6	1331.5	1088.4	970.2	983.1	1036.8	1110.0	1144.4	1153.0
40°	8748.4	6623.1	2017.7	1316.4	1066.9	935.7	937.9	978.8	1043.2	1094.9	1112.1
42.5°	9727.1	7384.6	2176.9	1260.5	1047.6	905.6	899.1	927.1	970.2	1006.7	1021.7
45°	10658.6	8167.6	2333.9	1183.1	1023.9	875.5	860.4	871.1	879.8	894.8	903.4
47.5°	11471.7	8718.2	2288.7	1112.1	991.7	841.1	815.3	811.0	785.2	783.0	780.8
50°	12033.1	8838.8	2032.8	1041.1	944.3	802.4	761.5	735.6	690.5	669.0	671.2
52.5°	12211.6	8363.4	1660.6	970.2	866.8	750.7	692.7	651.8	595.8	576.5	574.3
55°	11975.0	7432.0	1327.2	884.1	759.3	681.9	617.4	563.5	518.4	494.8	494.8
57.5°	11396.4	6246.7	1049.7	783.0	645.3	604.4	539.9	486.2	447.4	423.7	419.4
60°	10437.0	4960.4	830.4	662.6	550.6	520.6	453.9	419.4	385.1	357.1	350.7
62.5°	8980.7	3540.7	651.8	524.9	460.3	425.9	387.1	361.4	320.5	281.8	275.3
65°	7008.2	2166.1	503.4	385.1	370.0	352.8	329.1	305.4	255.9	217.3	210.8
67.5°	4420.4	1026.0	359.3	290.4	292.5	283.9	273.2	253.8	217.3	182.9	178.6
70°	1946.7	496.9	236.6	221.6	217.3	217.3	225.9	219.5	185.0	152.7	146.3
72.5°	662.6	266.7	176.4	167.8	157.0	154.9	189.3	182.9	148.4	118.3	111.8
75°	346.3	178.6	129.0	120.4	94.6	114.0	150.6	142.0	105.4	77.4	71.0
77.5°	225.9	126.9	88.1	77.4	53.8	75.3	111.8	98.9	62.4	38.7	34.4
80°	142.0	83.8	51.7	36.6	25.8	40.9	60.3	43.0	23.7	8.6	6.5
82.5°	75.3	43.0	19.4	12.9	10.8	12.9	15.1	10.8	4.3	0.0	0.0
85°	30.1	15.1	6.5	4.3	2.2	0.0	4.3	2.2	0.0	0.0	0.0
87.5°	10.8	2.2	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)