

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: P196632

Luminaire Tested: **NAV-AF-06-D-UNV-SL3-7030-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196632
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24262)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-06-D-UNV-SL3-7030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38168.6 lumens
Efficiency: N/A
Efficacy: 99.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 382
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

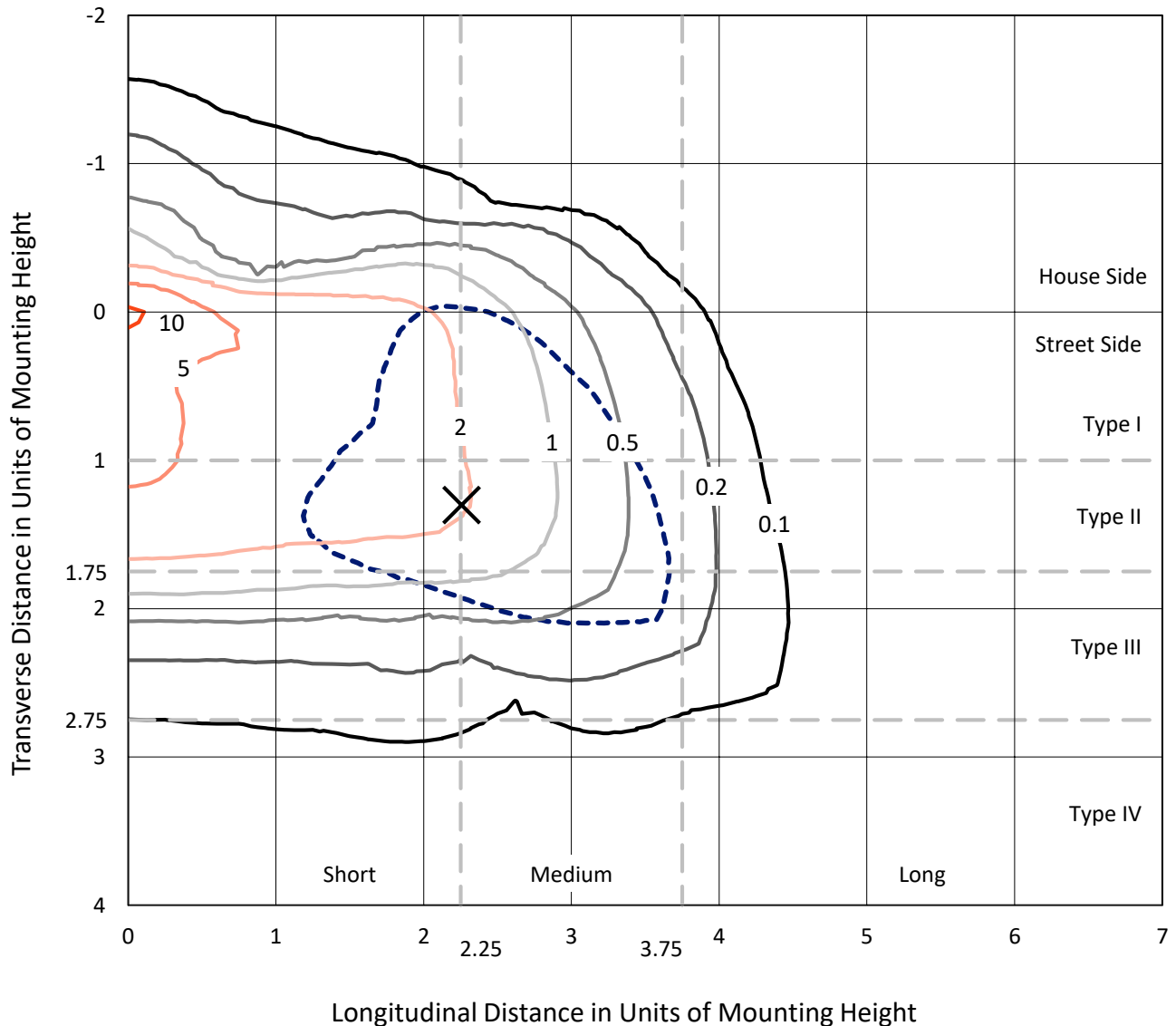


REPORT NUMBER: P196632

CATALOG NUMBER: NAV-AF-06-D-UNV-SL3-7030-1200

Iso-Footcandle Lines of Horizontal Illumination

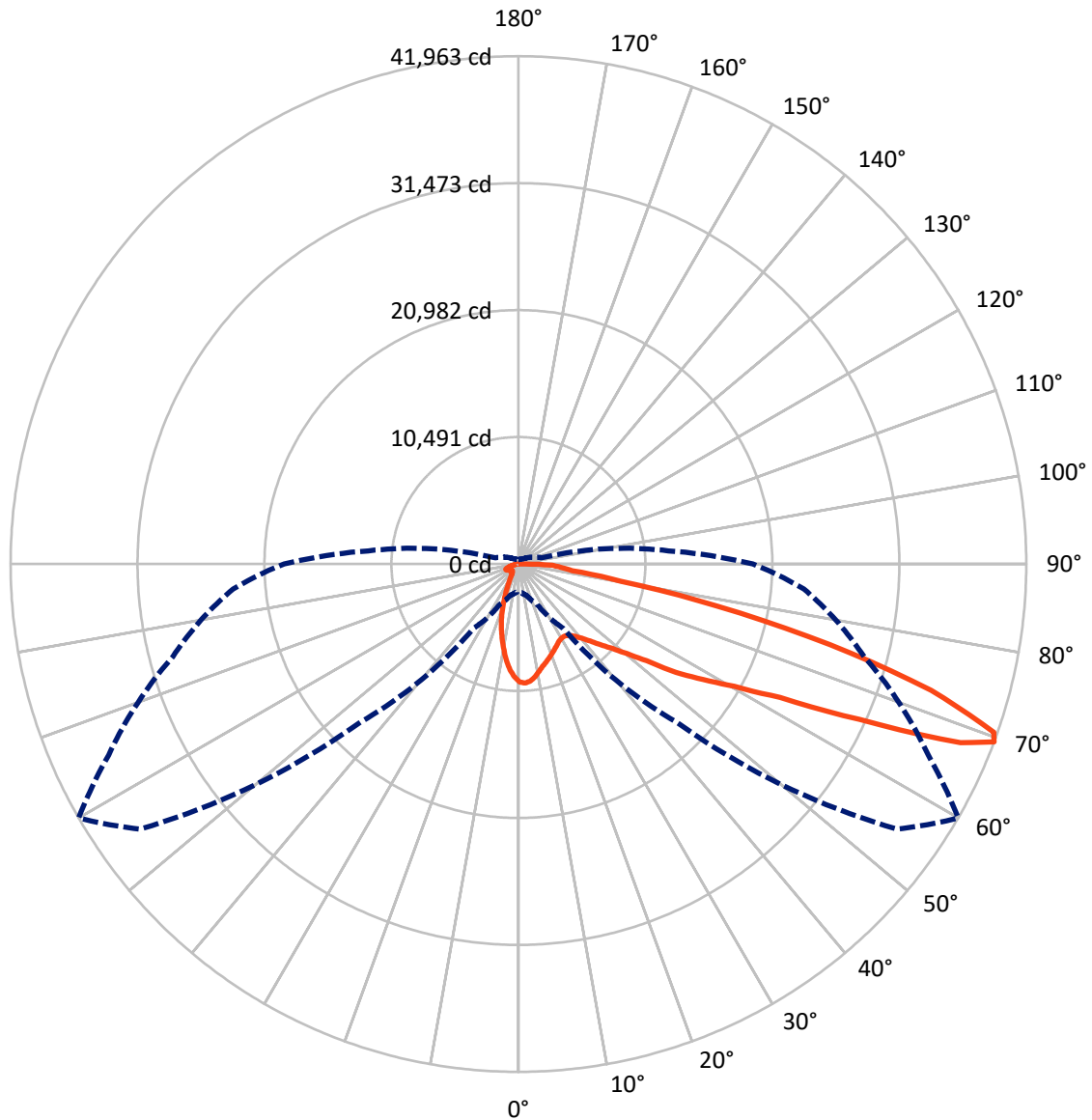
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.8 fc
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P196632
CATALOG NUMBER: NAV-AF-06-D-UNV-SL3-7030-1200

Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P196632

CATALOG NUMBER: NAV-AF-06-D-UNV-SL3-7030-1200

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5444.1	0.0	5444.1
	% Fixture	14.3	0.0	14.3
Street Side	Lumens	32724.5	0.0	32724.5
	% Fixture	85.7	0.0	85.7
Total	Lumens	38168.6	0.0	38168.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	826.2	2.2
10°-20°	1769.0	4.6
20°-30°	2256.6	5.9
30°-40°	3105.3	8.1
40°-50°	5030.1	13.2
50°-60°	7894.5	20.7
60°-70°	10524.8	27.6
70°-80°	5854.2	15.3
80°-90°	908.0	2.4
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°	38168.6	100.0
0°-180°	38168.6	100.0

Coefficient of Utilization



REPORT NUMBER: P196632

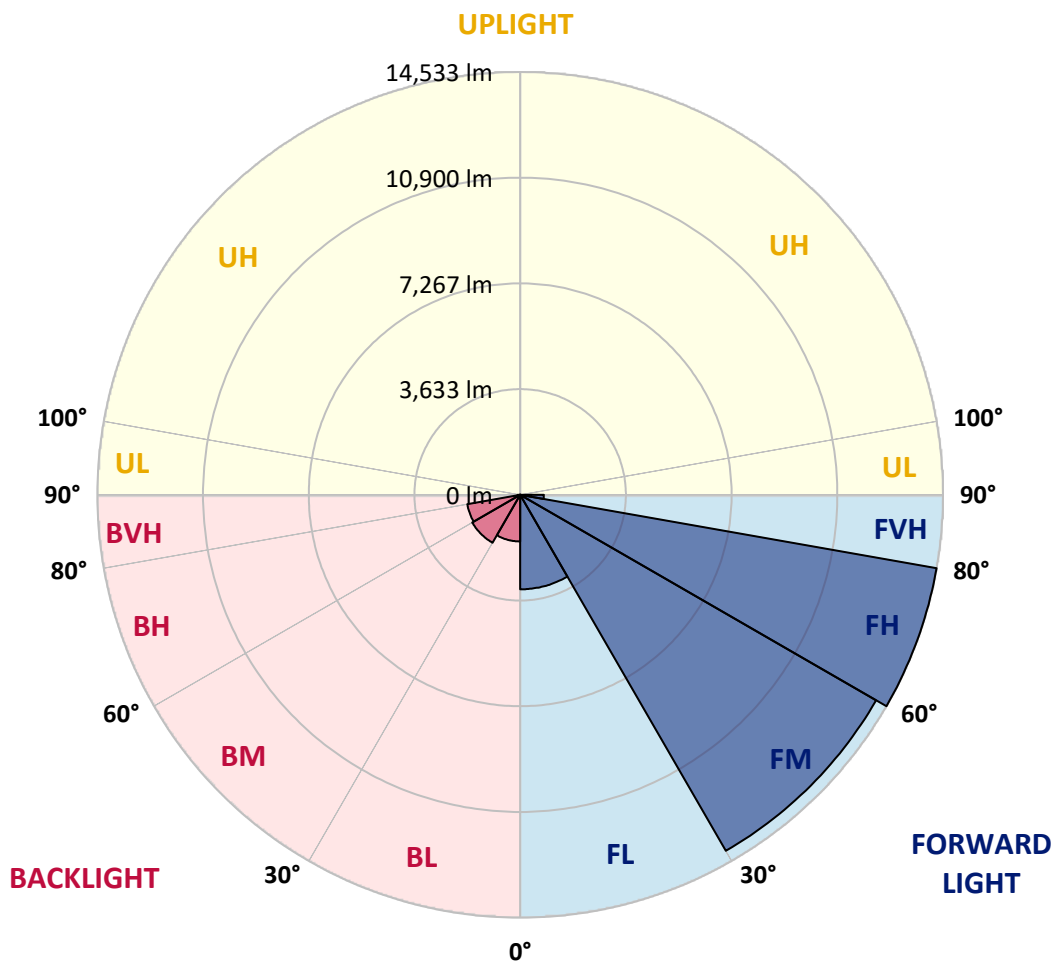
CATALOG NUMBER: NAV-AF-06-D-UNV-SL3-7030-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3247.4	8.5			
FM	(30°-60°)	14128.0	37.0			
FH	(60°-80°)	14533.1	38.1			G5
FVH	(80°-90°)	815.9	2.1			G5
BL	(0°-30°)	1604.4	4.2	B3/2500		
BM	(30°-60°)	1901.9	5.0	B2/2500		
BH	(60°-80°)	1845.8	4.8	B3/2500		G3/2500
BVH	(80°-90°)	92.0	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type III Medium





REPORT NUMBER: P196632

CATALOG NUMBER: NAV-AF-06-D-UNV-SL3-7030-1200

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	9738.9	9738.9	9738.9	9738.9	9738.9	9738.9	9738.9	9738.9	9738.9	9738.9	9738.9
2.5°	9998.4	10025.2	10025.2	10003.2	9991.0	9919.9	9878.3	9848.9	9797.6	9702.1	9616.5
5°	9640.9	9692.4	9714.4	9724.2	9787.8	9765.8	9768.3	9748.6	9704.6	9601.8	9462.3
7.5°	8985.1	8994.8	9034.0	9099.9	9254.3	9361.9	9450.1	9467.2	9457.4	9381.5	9185.7
10°	8338.8	8355.9	8402.5	8515.1	8662.0	8816.1	9007.0	9085.4	9144.1	9119.7	8872.4
12.5°	7802.9	7805.3	7856.8	7986.5	8150.4	8343.7	8603.2	8725.6	8865.1	8921.3	8644.8
15°	7286.4	7320.7	7369.6	7526.3	7729.4	7974.2	8272.8	8441.6	8625.3	8786.7	8468.5
17.5°	6894.8	6921.7	6951.1	7080.8	7315.8	7621.7	7991.3	8172.4	8414.7	8662.0	8287.5
20°	6679.3	6689.2	6667.1	6730.8	6929.0	7259.5	7687.8	7905.7	8194.5	8542.0	8101.5
22.5°	6635.4	6635.4	6554.6	6542.3	6630.4	6909.4	7374.5	7641.3	7993.7	8458.8	7935.0
25°	6840.9	6826.3	6674.5	6535.1	6503.2	6645.1	7075.8	7403.9	7822.4	8456.3	7810.2
27.5°	7230.1	7210.6	7022.1	6787.0	6584.0	6522.8	6845.8	7181.2	7687.8	8539.6	7746.5
30°	7714.7	7707.3	7516.5	7222.8	6887.4	6571.7	6755.3	7066.2	7597.3	8693.8	7744.1
32.5°	8245.8	8211.6	8094.0	7800.3	7364.7	6843.4	6809.1	7071.0	7572.8	8919.0	7800.3
35°	8811.2	8786.7	8757.3	8461.2	7971.7	7323.1	7046.5	7239.8	7692.7	9232.2	7959.4
37.5°	9530.8	9503.9	9552.9	9229.7	8693.8	7952.1	7447.8	7577.6	7937.4	9687.5	8255.6
40°	10810.8	10732.5	10595.5	10098.7	9535.7	8723.1	8028.1	8047.6	8355.9	10296.9	8730.5
42.5°	12913.4	12661.2	11983.2	11070.3	10424.2	9618.9	8784.3	8691.2	8933.6	11102.2	9420.7
45°	15020.6	14736.8	13591.3	12130.1	11344.5	10580.7	9719.2	9496.5	9653.2	12039.6	10309.1
47.5°	16381.6	16242.1	14949.7	13189.9	12308.8	11628.4	10788.8	10421.7	10534.3	13101.9	11405.7
50°	16780.5	16660.5	15644.9	14019.6	13219.3	12893.8	12113.0	11625.9	11645.5	14342.7	12720.0
52.5°	16481.9	16432.9	15759.9	14533.6	14056.3	14227.6	13946.2	13268.2	13106.7	15703.5	14144.4
55°	16083.0	16100.0	15840.6	15050.0	14908.1	15471.0	16344.8	15799.0	15113.8	17120.7	15627.7
57.5°	14827.3	14839.6	15520.0	16034.1	16533.3	17213.7	18212.3	17982.2	17184.3	18650.4	17289.6
60°	11939.2	12034.7	13549.7	15830.8	18390.9	20647.6	20892.3	20495.8	19387.2	20412.7	19450.8
62.5°	8529.8	8615.4	10370.4	13743.0	18173.1	24534.3	25841.4	24265.2	22375.6	23048.7	22490.7
65°	4481.5	4466.8	5825.1	9496.5	15307.0	25435.0	33639.3	30956.8	27410.2	26673.6	25427.7
67.5°	2503.9	2584.6	3110.8	4789.9	9976.3	22385.4	38620.1	39410.6	34410.2	29549.3	25300.4
69°	2315.4	2342.3	2694.8	3703.2	6503.2	18469.3	38191.8	41963.4	37362.1	29561.6	23670.4
70°	2249.3	2278.7	2599.3	3411.9	5463.0	15133.3	36632.7	41664.8	38079.1	28905.7	22187.2
72.5°	2016.8	2055.9	2366.8	3066.8	4603.8	7800.3	29507.7	35661.0	34493.4	25263.7	17204.0
75°	1720.7	1786.7	2256.6	3044.7	4361.5	4958.7	19678.3	26568.2	25672.4	18067.8	9760.9
77.5°	712.3	719.6	986.4	2229.8	4577.0	4745.7	10575.9	16829.4	14898.3	7922.7	2939.5
80°	496.8	487.1	492.0	651.0	3693.4	4777.7	5426.3	8559.2	6652.5	2090.2	1375.6
82.5°	418.6	413.6	433.2	408.7	1250.7	5421.3	4537.7	4461.9	3132.9	1125.9	656.0
85°	276.5	269.3	354.9	372.0	594.8	4305.3	4880.4	3507.3	2335.0	602.1	279.0
87.5°	134.6	137.0	203.1	252.1	315.8	1363.3	4674.8	2773.1	1803.9	261.9	112.5
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: P196632

CATALOG NUMBER: NAV-AF-06-D-UNV-SL3-7030-1200

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9738.9	9738.9	9738.9	9738.9	9738.9	9738.9	9738.9	9738.9	9738.9	9738.9	9738.9
2.5°	9582.2	9508.8	9442.7	9359.4	9295.9	9242.0	9168.6	9166.1	9153.8	9171.0	9175.9
5°	9369.3	9246.9	9060.9	8852.8	8706.0	8512.6	8324.1	8260.5	8189.5	8182.2	8204.3
7.5°	9048.7	8857.7	8539.6	8221.3	7903.2	7577.6	7269.2	7112.6	6960.9	6914.4	6936.5
10°	8691.2	8449.0	7961.9	7443.1	6995.1	6510.5	6040.6	5737.1	5460.6	5343.0	5372.4
12.5°	8412.3	8103.9	7418.6	6745.4	6074.9	5379.7	4760.5	4160.8	3708.0	3504.9	3517.2
15°	8172.4	7778.3	6909.4	6013.6	5174.2	4222.0	3363.0	2667.9	2271.4	2124.4	2119.6
17.5°	7913.0	7435.6	6378.3	5333.3	4244.0	3066.8	2251.8	1840.6	1683.9	1634.9	1634.9
20°	7636.3	7083.3	5822.8	4591.6	3265.0	2141.6	1693.7	1534.6	1475.9	1461.3	1458.7
22.5°	7379.4	6738.1	5264.6	3801.0	2361.8	1625.2	1441.5	1380.4	1370.6	1382.9	1382.9
25°	7176.2	6434.6	4699.3	2968.9	1718.2	1360.9	1282.4	1275.2	1311.8	1355.9	1363.3
27.5°	7024.5	6163.0	4141.3	2168.6	1351.1	1184.6	1157.7	1189.5	1275.2	1363.3	1380.4
30°	6919.3	5930.5	3473.2	1559.1	1125.9	1037.8	1050.0	1106.2	1236.0	1370.6	1407.4
32.5°	6872.7	5742.0	2800.0	1196.8	961.9	913.0	944.8	1018.2	1152.8	1287.4	1331.5
35°	6916.7	5604.9	2178.3	993.7	842.0	805.2	842.0	917.9	1006.0	1072.1	1098.9
37.5°	7075.8	5556.0	1639.9	881.1	763.6	726.9	756.3	807.7	846.9	871.4	883.6
40°	7411.2	5607.4	1285.0	822.4	719.6	678.0	685.3	709.7	736.7	756.3	758.7
42.5°	7944.8	5776.2	1143.0	800.4	692.7	638.8	626.6	643.7	673.0	700.1	704.9
45°	8654.5	6057.7	1128.3	807.7	680.4	607.1	582.6	599.7	638.8	682.9	690.2
47.5°	9572.4	6503.2	1196.8	846.9	687.8	589.9	553.2	570.4	621.6	680.4	690.2
50°	10659.2	7120.0	1324.1	905.6	721.9	589.9	541.0	555.6	609.4	675.6	685.3
52.5°	11939.2	7979.1	1456.3	964.3	771.0	611.9	545.9	543.3	592.3	653.5	665.7
55°	13351.5	9046.2	1583.6	1015.8	797.9	641.3	558.1	528.7	567.8	616.8	626.6
57.5°	15013.4	10507.4	1806.3	1064.7	812.6	663.3	572.7	513.9	536.0	570.4	577.7
60°	17267.6	12653.9	2239.5	1147.9	839.5	673.0	575.1	499.4	496.8	521.3	523.8
62.5°	20207.1	15167.6	2653.2	1245.8	893.4	675.6	565.4	489.5	465.0	472.3	472.3
65°	22297.3	16092.7	2533.1	1329.0	942.4	673.0	555.6	482.2	440.6	428.3	428.3
67.5°	21107.8	14215.4	2151.5	1351.1	947.2	646.2	533.6	465.0	418.6	389.2	389.2
69°	19360.2	12460.6	1975.2	1311.8	908.1	614.4	509.0	447.9	403.8	369.7	369.7
70°	17935.8	11131.6	1867.5	1265.4	861.5	587.4	487.1	430.8	389.2	359.8	357.4
72.5°	13390.6	7428.3	1595.8	1091.6	707.4	496.8	425.9	384.3	349.9	330.4	330.4
75°	7066.2	3722.8	1307.0	890.9	545.9	396.5	349.9	323.1	303.5	301.0	298.6
77.5°	2315.4	1683.9	939.8	670.7	401.4	308.4	279.0	261.9	259.5	269.3	269.3
80°	1250.7	1006.0	604.5	452.8	279.0	230.1	215.3	212.9	220.2	235.0	235.0
82.5°	607.1	496.8	359.8	279.0	190.8	169.0	169.0	171.3	181.2	198.3	198.3
85°	261.9	235.0	208.0	156.7	117.5	105.2	119.9	132.2	139.6	151.8	156.7
87.5°	124.8	110.2	95.5	61.1	51.4	53.9	63.6	78.3	93.0	102.8	105.2
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)