

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: P196741

Luminaire Tested: **NAV-AF-01-D-UNV-T2-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196741
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24136)
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-T2-7030
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5783.1 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 59
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

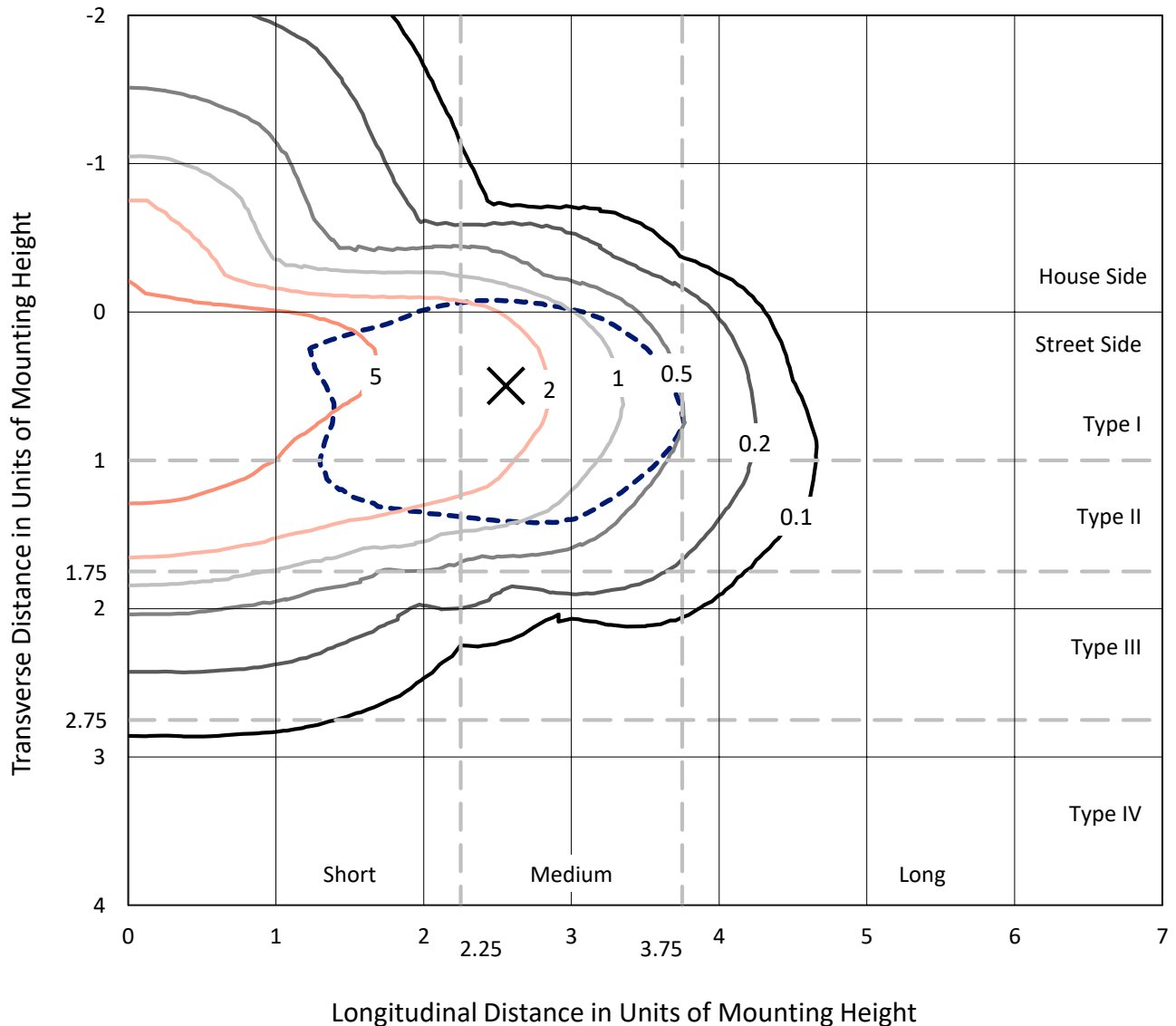


REPORT NUMBER: P196741

CATALOG NUMBER: NAV-AF-01-D-UNV-T2-7030

Iso-Footcandle Lines of Horizontal Illumination

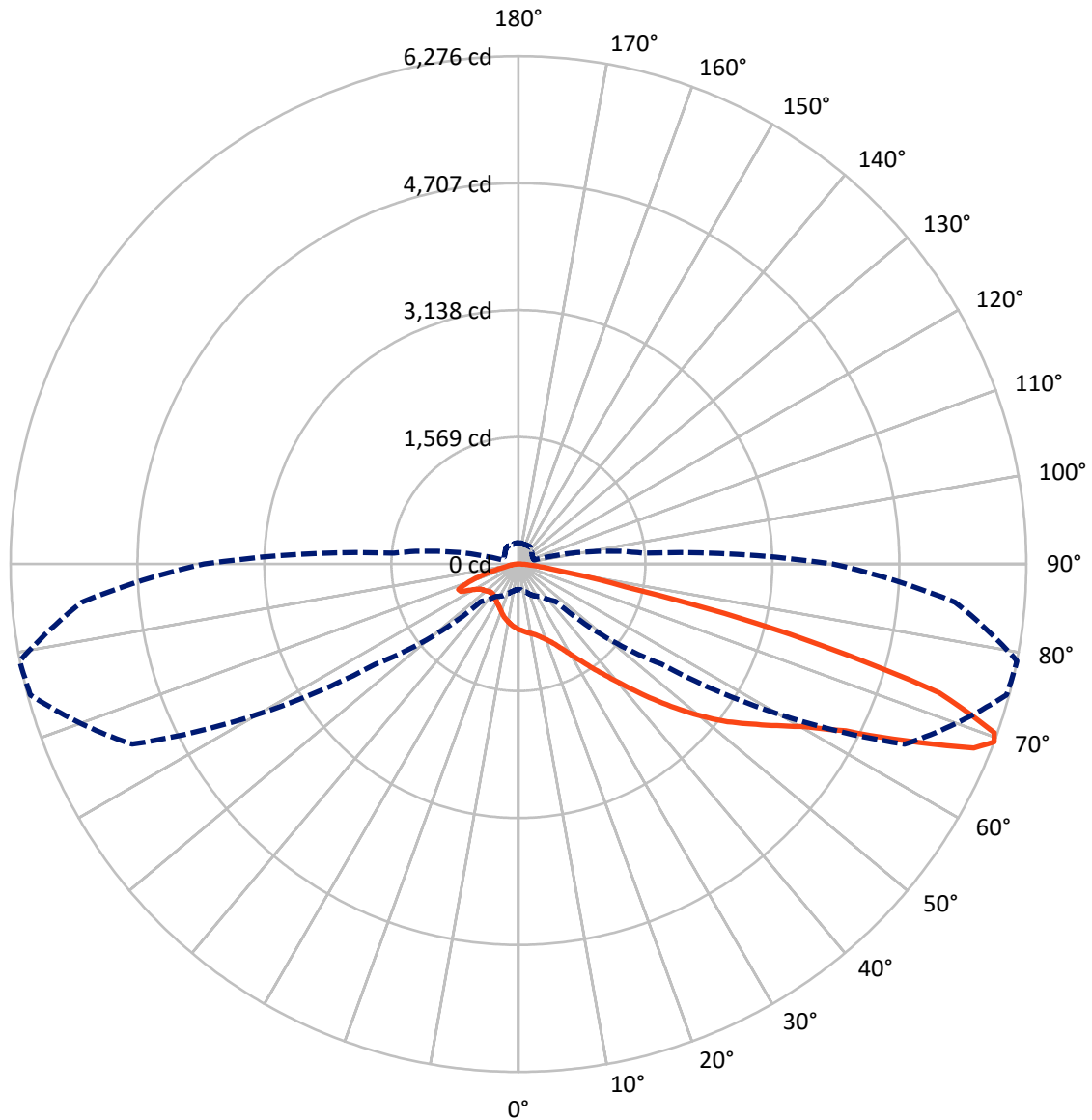
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.8 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P196741
CATALOG NUMBER: NAV-AF-01-D-UNV-T2-7030

Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P196741

CATALOG NUMBER: NAV-AF-01-D-UNV-T2-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1087.9	0.0	1087.9
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	4695.2	0.0	4695.2
	% Fixture	81.2	0.0	81.2
Total	Lumens	5783.1	0.0	5783.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.2	1.3
10°-20°	215.7	3.7
20°-30°	356.4	6.2
30°-40°	577.1	10.0
40°-50°	922.0	15.9
50°-60°	1320.4	22.8
60°-70°	1471.1	25.4
70°-80°	736.0	12.7
80°-90°	109.2	1.9
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°	5783.1	100.0
0°-180°	5783.1	100.0

Coefficient of Utilization



REPORT NUMBER: P196741

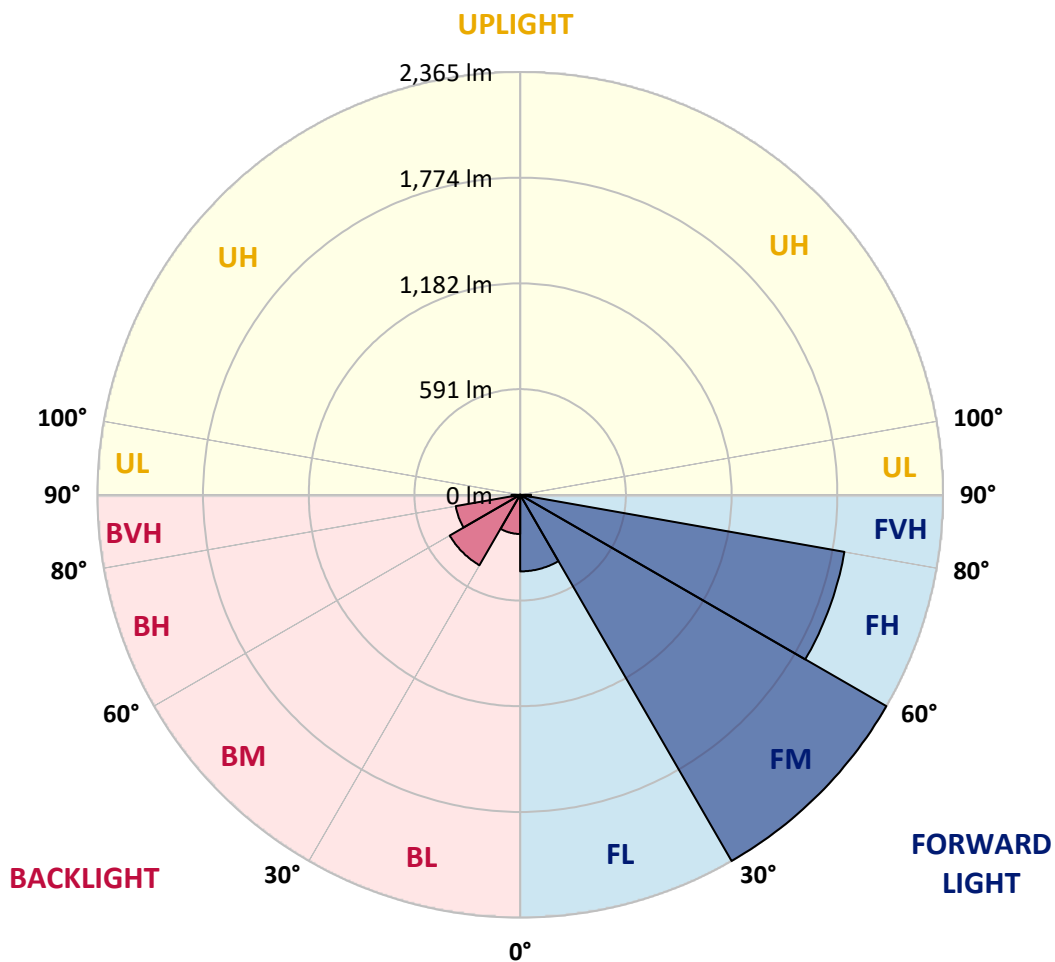
CATALOG NUMBER: NAV-AF-01-D-UNV-T2-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	428.2	7.4			
FM (30°-60°)	2364.7	40.9			
FH (60°-80°)	1841.3	31.8			G2/5000
FVH (80°-90°)	61.0	1.1			G1/100
BL (0°-30°)	219.2	3.8	B1/500		
BM (30°-60°)	454.8	7.9	B1/1000		
BH (60°-80°)	365.8	6.3	B1/500		G1/500
BVH (80°-90°)	48.2	0.8			G1/100
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





REPORT NUMBER: P196741

CATALOG NUMBER: NAV-AF-01-D-UNV-T2-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	811.6	811.6	811.6	811.6	811.6	811.6	811.6	811.6	811.6	811.6	811.6
2.5°	891.0	889.2	888.8	883.1	880.1	873.6	858.4	842.9	828.6	821.0	813.1
5°	965.6	961.7	959.9	950.4	942.1	927.7	903.9	879.3	853.6	840.3	824.4
7.5°	1010.5	1010.9	1010.9	1003.3	995.1	977.7	947.4	913.7	875.5	858.1	833.1
10°	1014.4	1014.7	1020.4	1022.3	1024.2	1015.1	987.1	944.8	895.5	872.9	840.3
12.5°	976.9	979.5	989.1	1002.6	1021.9	1031.7	1019.6	978.0	921.3	893.6	854.0
15°	926.5	929.2	941.3	962.1	993.1	1026.1	1043.1	1016.2	954.9	922.3	874.0
17.5°	901.9	905.0	913.3	930.1	960.3	1004.5	1055.6	1057.1	994.7	957.2	897.8
20°	890.3	892.5	903.1	916.6	939.8	982.1	1056.7	1100.2	1042.0	998.4	926.9
22.5°	917.1	917.9	923.1	930.8	946.3	978.8	1056.0	1144.8	1101.0	1050.3	964.4
25°	995.8	990.9	987.1	977.7	981.4	1004.5	1068.1	1192.6	1176.6	1118.4	1014.4
27.5°	1088.9	1088.1	1078.3	1056.3	1042.4	1057.1	1102.5	1245.9	1269.4	1205.0	1079.8
30°	1192.6	1192.9	1182.7	1155.9	1127.4	1128.9	1157.4	1307.7	1380.2	1309.5	1160.4
32.5°	1301.2	1308.0	1289.0	1262.2	1227.7	1216.7	1236.0	1382.1	1508.5	1432.8	1253.9
35°	1430.9	1432.1	1411.2	1371.9	1337.5	1320.1	1337.9	1475.2	1656.4	1577.7	1367.7
37.5°	1565.5	1566.3	1544.8	1494.4	1451.0	1439.6	1459.2	1588.3	1813.0	1742.6	1501.7
40°	1675.7	1683.6	1666.6	1619.3	1575.4	1568.6	1597.1	1723.8	2013.2	1937.9	1661.0
42.5°	1800.6	1809.7	1789.2	1740.1	1705.2	1703.0	1747.2	1878.0	2212.2	2163.8	1841.4
45°	1941.3	1954.1	1925.8	1870.5	1841.0	1891.0	1893.6	2049.1	2441.5	2416.5	2044.6
47.5°	2094.9	2105.5	2082.4	2023.1	1990.8	2063.2	2037.0	2234.2	2689.3	2687.3	2264.4
50°	2213.4	2225.1	2227.4	2201.2	2167.6	2176.7	2194.4	2428.7	2936.4	2965.9	2491.7
52.5°	2191.7	2203.1	2254.1	2322.7	2376.7	2353.3	2374.9	2635.3	3175.1	3237.5	2707.8
55°	2017.7	2023.8	2119.5	2282.2	2512.6	2624.6	2626.0	2859.9	3402.2	3489.5	2912.9
57.5°	1704.1	1704.8	1829.3	2069.2	2433.5	2800.6	3022.5	3142.2	3638.9	3768.0	3167.1
60°	1205.7	1208.9	1353.7	1667.4	2150.1	2779.3	3449.0	3647.3	3913.2	4080.9	3494.7
62.5°	715.8	722.6	832.0	1083.7	1597.1	2507.0	3700.9	4545.8	4317.3	4539.7	4019.2
65°	465.8	471.5	536.9	663.2	943.6	1824.0	3618.1	5416.0	5081.9	5261.6	4772.8
67.5°	358.7	363.2	414.6	491.1	578.8	985.9	2892.8	5598.3	6012.6	6068.7	5408.8
69°	315.2	318.9	356.7	430.2	487.3	652.6	2155.8	5267.3	6245.4	6276.0	5416.7
70°	292.0	295.1	330.7	394.2	447.6	520.9	1650.0	4882.9	6160.2	6238.4	5260.5
72.5°	240.6	243.3	268.7	317.4	365.9	371.2	731.0	3565.5	5187.1	5437.7	4451.7
75°	200.9	202.4	219.1	254.6	296.2	295.4	373.4	2019.6	3165.2	3463.7	2748.6
77.5°	167.6	168.7	179.7	201.7	233.9	232.7	263.0	871.7	1397.7	1348.4	946.3
80°	147.9	148.7	154.4	160.1	180.5	179.3	194.8	400.3	568.7	525.5	358.0
82.5°	112.3	113.8	142.6	145.4	140.0	135.1	135.8	233.0	291.2	265.2	192.2
85°	63.6	63.9	91.6	107.1	121.9	91.6	88.2	120.3	143.7	125.9	84.0
87.5°	28.4	29.5	43.9	50.7	65.9	53.7	50.4	51.1	62.1	51.5	33.4
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: P196741

CATALOG NUMBER: NAV-AF-01-D-UNV-T2-7030

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	811.6	811.6	811.6	811.6	811.6	811.6	811.6	811.6	811.6	811.6	811.6
2.5°	805.5	799.0	783.9	768.4	752.9	743.1	732.8	723.4	719.6	719.3	712.1
5°	808.9	793.8	759.4	721.5	685.6	657.5	634.1	619.0	604.2	601.6	595.1
7.5°	810.0	785.5	729.5	668.8	614.0	575.5	552.0	541.8	534.6	532.7	530.5
10°	809.6	774.8	696.2	613.3	550.8	521.7	513.1	515.2	518.3	519.8	519.8
12.5°	815.7	769.9	662.8	561.0	510.0	496.0	502.8	514.5	523.7	527.4	528.2
15°	826.6	766.9	626.2	515.7	481.3	484.7	501.3	518.3	531.2	536.9	538.4
17.5°	840.3	762.7	583.8	478.2	464.6	476.4	497.9	519.4	535.0	542.2	543.3
20°	855.4	756.7	539.8	450.2	449.8	464.6	486.2	510.4	527.0	535.0	534.6
22.5°	875.8	751.0	499.0	429.8	433.5	447.2	465.0	487.0	502.5	509.5	508.2
25°	903.1	745.7	462.3	411.7	415.0	424.2	436.6	453.2	464.3	468.0	465.3
27.5°	939.8	741.6	433.5	395.0	394.7	398.8	406.3	415.4	420.7	419.5	415.4
30°	984.9	737.4	412.4	380.2	375.0	374.5	377.9	383.3	386.7	379.9	376.5
32.5°	1035.1	730.2	393.5	367.3	358.0	354.5	356.0	363.2	377.2	370.4	367.7
35°	1094.6	721.8	374.5	353.4	346.2	339.8	340.9	356.4	398.8	393.9	391.2
37.5°	1166.1	714.3	357.2	338.2	337.8	330.0	329.2	347.7	404.5	393.9	391.5
40°	1251.9	712.8	341.7	321.6	327.7	324.6	322.0	333.3	373.0	351.5	347.3
42.5°	1355.6	719.6	330.3	305.7	315.9	323.1	318.2	320.7	337.1	317.8	314.4
45°	1476.6	738.1	322.0	291.7	303.4	322.0	316.3	314.0	316.7	306.0	303.8
47.5°	1617.8	771.1	316.3	279.9	291.7	318.9	315.5	311.0	309.9	303.8	302.3
50°	1768.8	815.3	312.5	269.5	281.2	313.7	315.2	308.7	306.8	304.2	303.4
52.5°	1918.6	863.3	308.0	260.2	272.4	307.2	315.5	306.5	303.8	302.3	301.5
55°	2067.6	913.3	299.7	252.4	265.9	299.7	315.2	303.4	300.4	300.4	300.4
57.5°	2261.0	989.4	288.7	246.0	257.7	289.9	310.3	300.0	295.9	296.2	296.6
60°	2540.2	1116.8	276.5	238.7	246.7	278.5	302.6	294.0	289.1	290.5	290.9
62.5°	3006.7	1339.7	259.9	228.6	235.4	266.4	292.9	285.6	281.2	283.7	284.2
65°	3628.7	1609.5	237.9	215.7	223.7	252.7	280.4	275.8	270.9	277.3	277.0
67.5°	4008.1	1688.6	214.9	202.0	212.3	238.4	264.9	263.0	259.5	270.9	270.1
69°	3883.7	1545.6	201.7	193.4	204.4	228.6	255.0	254.2	251.7	262.6	261.7
70°	3690.3	1411.9	193.4	187.7	200.2	222.5	248.6	248.6	246.0	255.3	253.5
72.5°	2964.3	1047.2	174.0	173.2	185.7	205.9	231.2	233.0	231.5	234.9	233.0
75°	1740.4	631.1	155.1	157.5	168.4	188.0	211.9	213.4	211.9	211.5	211.9
77.5°	603.4	283.0	137.0	140.4	149.8	169.9	190.6	193.7	191.4	188.8	189.6
80°	236.1	164.6	117.2	122.2	130.1	149.4	169.5	171.4	167.9	167.6	164.6
82.5°	141.9	100.3	91.2	99.1	108.9	129.8	146.4	145.7	143.0	158.5	138.9
85°	61.6	55.6	66.5	74.6	79.4	97.2	123.7	120.3	113.8	100.3	98.0
87.5°	25.0	28.7	36.7	44.2	47.6	62.9	84.7	81.7	82.8	68.1	67.7
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)