

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: P270422

Luminaire Tested: **NAV-AF-03-D-UNV-RW-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270422
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-03-D-UNV-RW-7027-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10596.1 lumens
Efficiency: N/A
Efficacy: 110.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G3

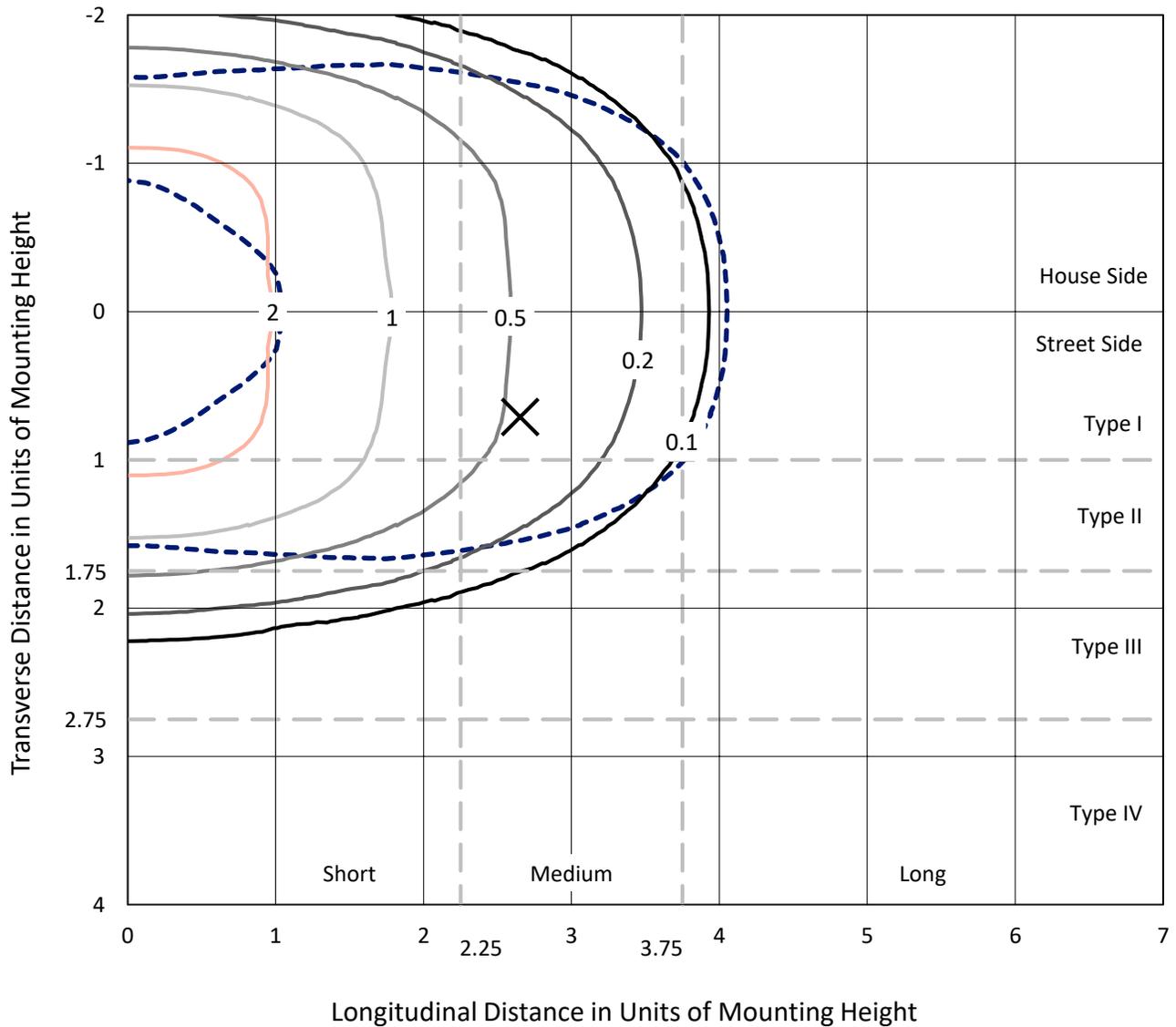
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P270422
 CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7027-600

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

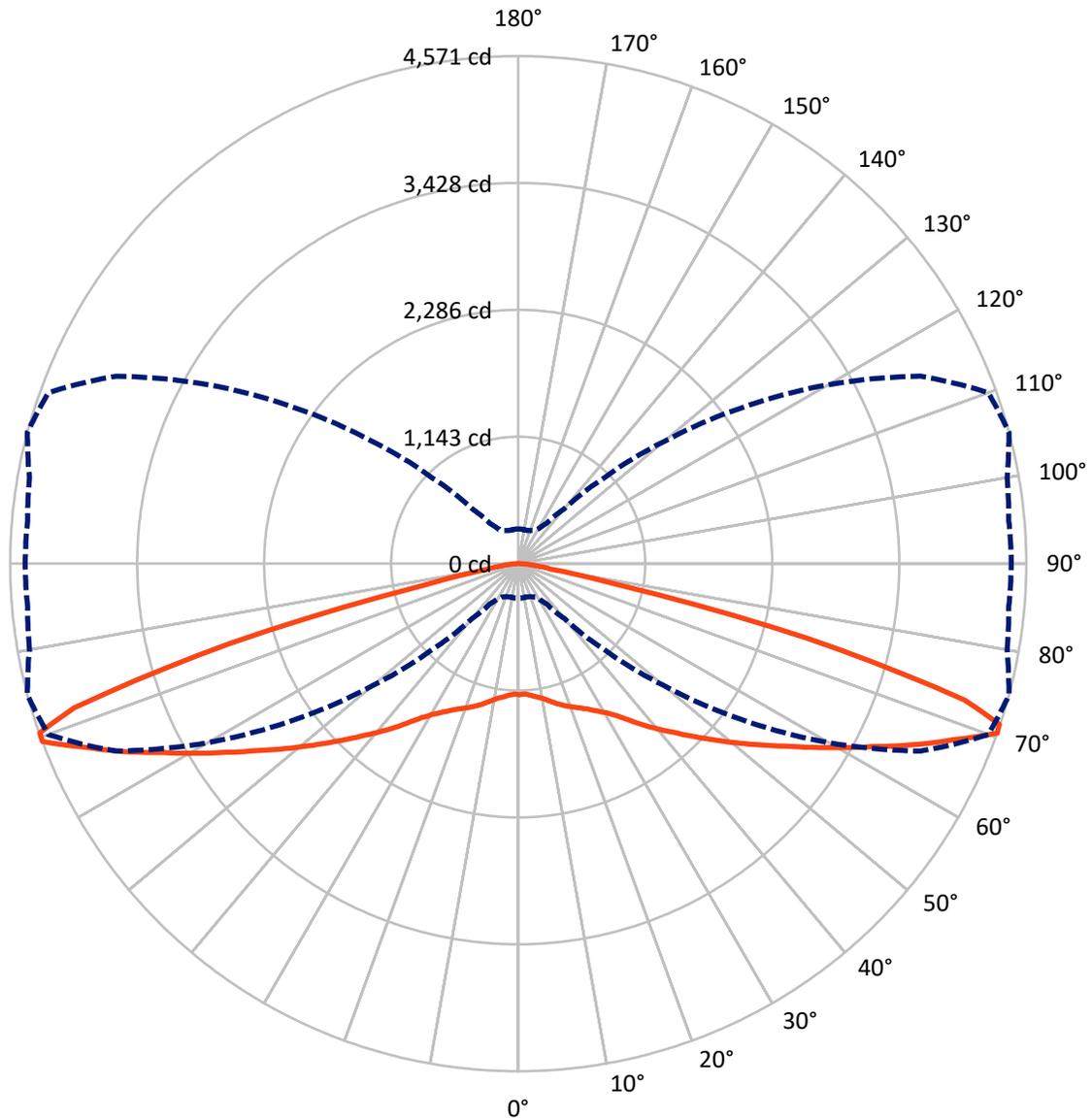


Based on 20 foot mounting height. Maximum calculated value = 3 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P270422

CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7027-600

Luminous Intensity Polar Plot



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

REPORT NUMBER: P270422

CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7027-600

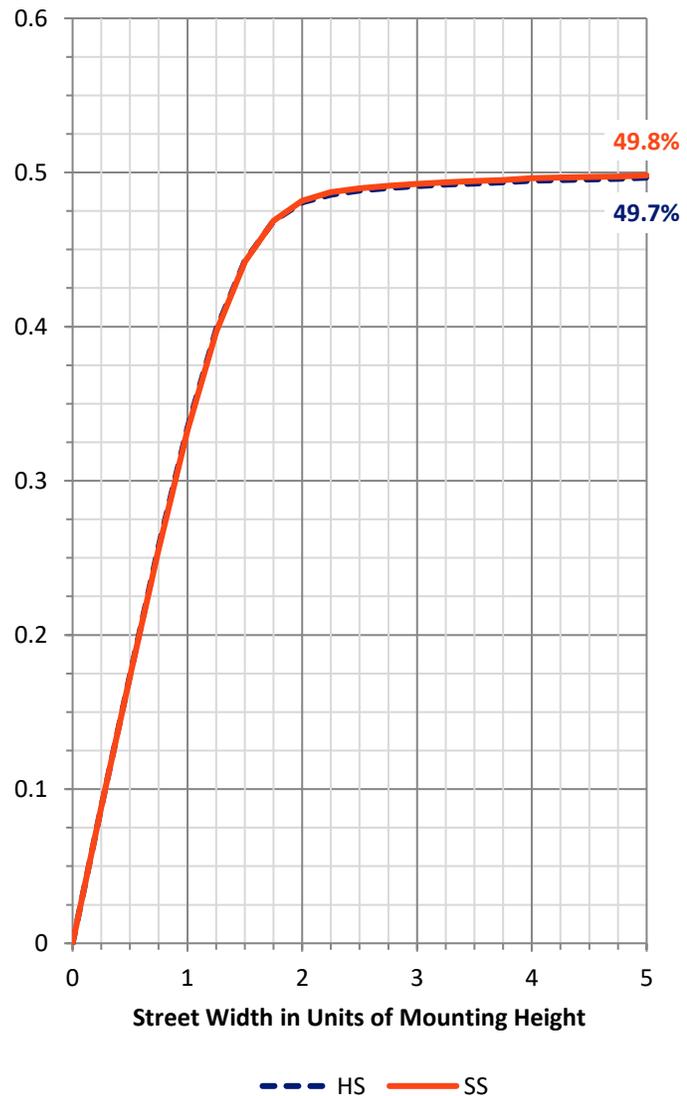
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5298.0	0.0	5298.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	5298.0	0.0	5298.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	10596.1	0.0	10596.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.2	1.1
10°-20°	351.0	3.3
20°-30°	659.3	6.2
30°-40°	1161.3	11.0
40°-50°	1924.7	18.2
50°-60°	2677.5	25.3
60°-70°	2527.6	23.9
70°-80°	1079.6	10.2
80°-90°	102.0	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°	10596.1	100.0
0°-180°	10596.1	100.0



REPORT NUMBER: P270422

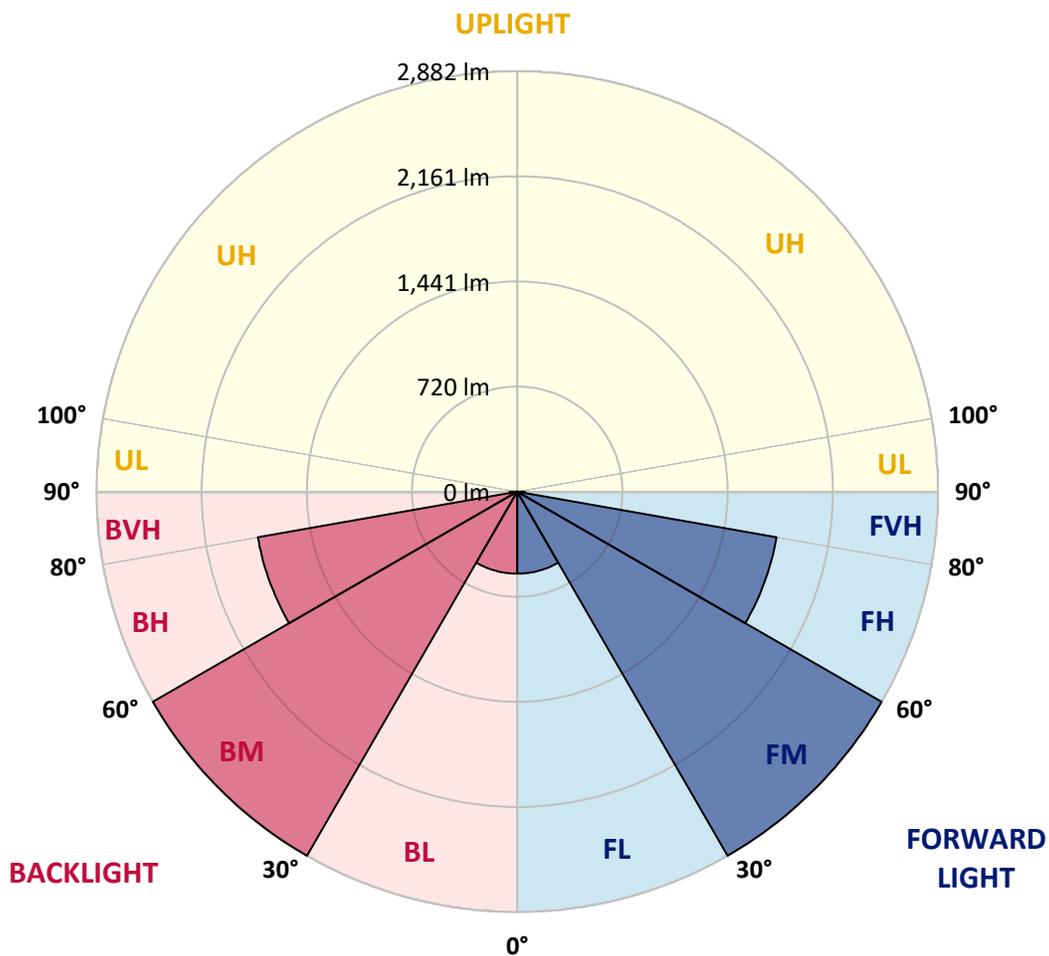
CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7027-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	561.7	5.3			
FM	(30°-60°)	2881.7	27.2			
FH	(60°-80°)	1803.6	17.0			G2/5000
FVH	(80°-90°)	51.0	0.5			G1/100
BL	(0°-30°)	561.7	5.3	B2/1000		
BM	(30°-60°)	2881.7	27.2	B3/5000		
BH	(60°-80°)	1803.6	17.0	B3/2500		G3/2500
BVH	(80°-90°)	51.0	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium





REPORT NUMBER: P270422

CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7027-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1180.0	1180.0	1180.0	1180.0	1180.0	1180.0	1180.0	1180.0	1180.0	1180.0	1180.0
2.5°	1187.3	1186.7	1187.3	1185.4	1185.9	1185.4	1185.4	1182.6	1182.6	1181.4	1179.4
5°	1174.1	1175.3	1175.3	1175.3	1177.3	1177.3	1180.0	1180.6	1182.6	1184.7	1185.9
7.5°	1152.0	1152.7	1154.7	1156.1	1160.0	1165.5	1170.8	1176.7	1182.0	1188.5	1196.0
10°	1133.5	1134.7	1138.2	1141.4	1148.8	1155.4	1164.7	1174.1	1183.2	1194.6	1205.9
12.5°	1123.5	1125.5	1130.8	1136.1	1147.5	1156.1	1168.7	1183.2	1196.0	1206.6	1219.2
15°	1124.9	1125.5	1132.9	1140.0	1156.1	1168.1	1185.9	1203.2	1218.6	1230.5	1245.1
17.5°	1144.1	1145.5	1152.7	1163.3	1178.7	1193.8	1213.3	1231.0	1251.7	1265.6	1282.9
20°	1182.0	1184.0	1192.0	1203.2	1219.8	1235.8	1255.7	1274.2	1295.5	1312.2	1329.4
22.5°	1231.0	1234.5	1243.1	1257.0	1273.5	1292.9	1313.4	1332.6	1352.6	1369.2	1383.7
25°	1296.9	1300.8	1310.1	1324.1	1340.7	1361.2	1382.5	1402.4	1423.0	1435.6	1447.6
27.5°	1385.1	1391.8	1401.7	1413.0	1427.6	1449.5	1469.4	1486.1	1506.0	1519.9	1527.9
30°	1504.0	1513.4	1521.3	1533.2	1543.8	1567.2	1583.1	1596.3	1611.6	1619.6	1621.5
32.5°	1649.5	1658.1	1666.0	1674.7	1689.4	1710.6	1725.9	1733.1	1741.1	1739.7	1732.4
35°	1813.5	1820.1	1824.7	1840.0	1864.0	1877.8	1889.1	1891.8	1893.2	1879.3	1865.2
37.5°	1986.2	1994.1	1998.1	2021.9	2044.5	2060.5	2065.8	2071.9	2067.8	2044.5	2019.3
40°	2172.7	2181.4	2193.3	2213.9	2240.5	2255.7	2262.3	2261.7	2258.3	2231.1	2190.0
42.5°	2356.0	2366.6	2376.6	2412.4	2434.3	2460.2	2463.5	2462.9	2455.5	2424.3	2376.6
45°	2511.3	2524.0	2544.5	2584.5	2619.5	2650.8	2663.5	2668.1	2660.8	2627.5	2573.1
47.5°	2639.5	2648.2	2674.1	2722.6	2767.7	2813.5	2838.7	2856.6	2856.0	2832.0	2774.3
50°	2727.2	2737.1	2768.9	2823.5	2879.8	2933.7	2983.5	3024.0	3043.3	3026.0	2972.2
52.5°	2752.3	2765.1	2806.8	2871.9	2937.6	3010.0	3084.4	3156.1	3199.3	3210.0	3168.1
55°	2646.1	2660.2	2721.1	2811.4	2919.8	3026.6	3139.5	3241.8	3330.7	3372.0	3355.3
57.5°	2336.8	2346.6	2424.3	2541.2	2696.0	2883.9	3073.8	3261.0	3413.7	3520.6	3539.2
60°	1848.1	1860.6	1945.5	2069.1	2245.0	2482.7	2748.5	3055.1	3354.7	3599.7	3721.1
62.5°	1247.0	1255.7	1337.3	1450.3	1642.8	1871.9	2168.1	2556.4	2983.5	3421.0	3763.7
65°	654.8	654.8	709.8	788.8	942.2	1147.5	1450.9	1849.3	2357.3	2903.9	3476.8
67.5°	379.9	379.2	391.8	409.6	458.1	541.1	708.6	1001.3	1482.2	2118.3	2770.4
70°	313.4	311.4	309.5	309.5	316.7	329.4	361.2	441.5	646.2	1092.2	1704.5
71°	299.4	298.1	292.8	290.8	294.1	300.8	314.8	352.0	458.9	745.1	1273.0
72.5°	282.8	279.6	271.6	268.2	269.0	271.6	275.6	290.2	322.8	423.6	725.8
75°	257.6	249.6	239.7	235.0	233.1	232.4	232.4	236.4	243.7	255.7	297.5
77.5°	228.3	217.1	206.5	201.8	198.5	196.5	195.2	192.5	191.2	196.5	211.8
80°	193.2	181.3	172.7	170.0	168.1	164.0	158.7	153.4	150.0	152.7	162.1
82.5°	149.4	137.4	138.8	139.4	136.2	129.4	124.1	118.1	112.2	110.9	115.5
85°	118.8	112.8	109.0	117.6	110.2	102.2	95.0	85.0	71.1	58.4	63.7
87.5°	51.2	51.8	74.4	112.2	98.3	79.1	65.8	53.1	33.9	25.2	26.0
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: P270422

CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7027-600

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1180.0	1180.0	1180.0	1180.0	1180.0	1180.0	1180.0	1180.0
2.5°	1178.7	1178.7	1176.7	1175.3	1175.3	1175.3	1174.1	1174.7
5°	1186.7	1188.0	1189.3	1188.5	1190.7	1192.6	1192.0	1191.2
7.5°	1199.9	1203.9	1208.0	1209.8	1212.5	1215.1	1215.9	1213.8
10°	1213.3	1221.2	1227.2	1232.5	1235.8	1238.5	1240.4	1239.8
12.5°	1229.8	1241.1	1251.7	1262.3	1269.7	1273.5	1277.6	1276.2
15°	1257.0	1269.7	1282.9	1296.9	1308.1	1314.1	1320.1	1318.7
17.5°	1294.2	1305.4	1316.0	1330.0	1344.0	1350.6	1357.2	1356.6
20°	1340.7	1349.3	1355.4	1363.3	1376.6	1383.7	1389.8	1387.8
22.5°	1393.8	1396.4	1397.1	1399.7	1410.3	1419.1	1427.0	1428.9
25°	1451.7	1449.5	1445.6	1443.5	1450.9	1460.1	1470.2	1472.9
27.5°	1523.3	1516.7	1506.6	1498.7	1500.7	1512.7	1524.0	1526.6
30°	1613.5	1598.4	1577.1	1561.9	1559.2	1571.8	1583.7	1587.7
32.5°	1716.5	1695.9	1666.7	1643.4	1633.5	1644.7	1655.4	1661.3
35°	1838.7	1816.2	1780.9	1751.1	1735.0	1742.4	1760.9	1767.7
37.5°	1983.5	1952.2	1913.1	1875.2	1848.6	1850.0	1869.9	1877.8
40°	2143.4	2098.4	2048.6	2001.3	1962.8	1960.2	1978.2	1984.0
42.5°	2310.1	2252.4	2193.9	2132.1	2084.3	2075.8	2099.0	2099.7
45°	2489.5	2415.1	2342.7	2270.9	2221.1	2205.9	2228.4	2231.1
47.5°	2680.7	2587.7	2502.0	2424.3	2370.5	2346.6	2368.7	2372.6
50°	2879.8	2783.6	2684.0	2597.7	2534.6	2505.4	2531.2	2533.8
52.5°	3077.1	2986.1	2887.2	2788.2	2712.0	2678.7	2709.2	2718.5
55°	3275.7	3187.9	3095.0	2996.0	2899.8	2870.7	2903.9	2913.7
57.5°	3482.2	3397.7	3313.5	3213.9	3120.3	3075.7	3111.5	3125.6
60°	3709.9	3635.5	3555.9	3455.6	3363.3	3311.5	3342.1	3358.0
62.5°	3933.7	3918.4	3846.1	3741.8	3624.9	3573.1	3599.0	3610.3
65°	3952.4	4199.9	4196.6	4093.0	3929.7	3842.7	3850.0	3855.3
67.5°	3449.6	4017.9	4381.3	4413.8	4231.8	4095.7	4079.8	4083.1
70°	2442.3	3222.5	3993.4	4499.4	4571.1	4465.6	4431.1	4436.4
71°	1956.9	2765.1	3613.6	4294.3	4565.8	4535.4	4516.0	4530.1
72.5°	1249.1	2037.3	2863.3	3677.4	4198.7	4348.1	4370.0	4378.6
75°	453.6	876.6	1483.5	2125.6	2693.9	3085.0	3300.3	3317.5
77.5°	243.7	314.0	485.4	725.1	911.1	1010.7	1022.6	1027.2
80°	179.3	207.9	237.7	271.6	292.8	296.8	289.6	274.3
82.5°	126.8	143.4	155.3	167.4	176.0	168.6	140.1	106.9
85°	73.8	80.9	87.7	93.7	95.0	89.7	59.1	48.5
87.5°	29.3	31.9	31.3	35.3	33.9	31.3	23.3	19.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)