

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: P233785

Luminaire Tested: **VRDN-C028-D-UNV-T4-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233785
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-34)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: VRDN-C028-D-UNV-T4-7030-HSS
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 930mA LEDS AND TYPE IV OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9259 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G3

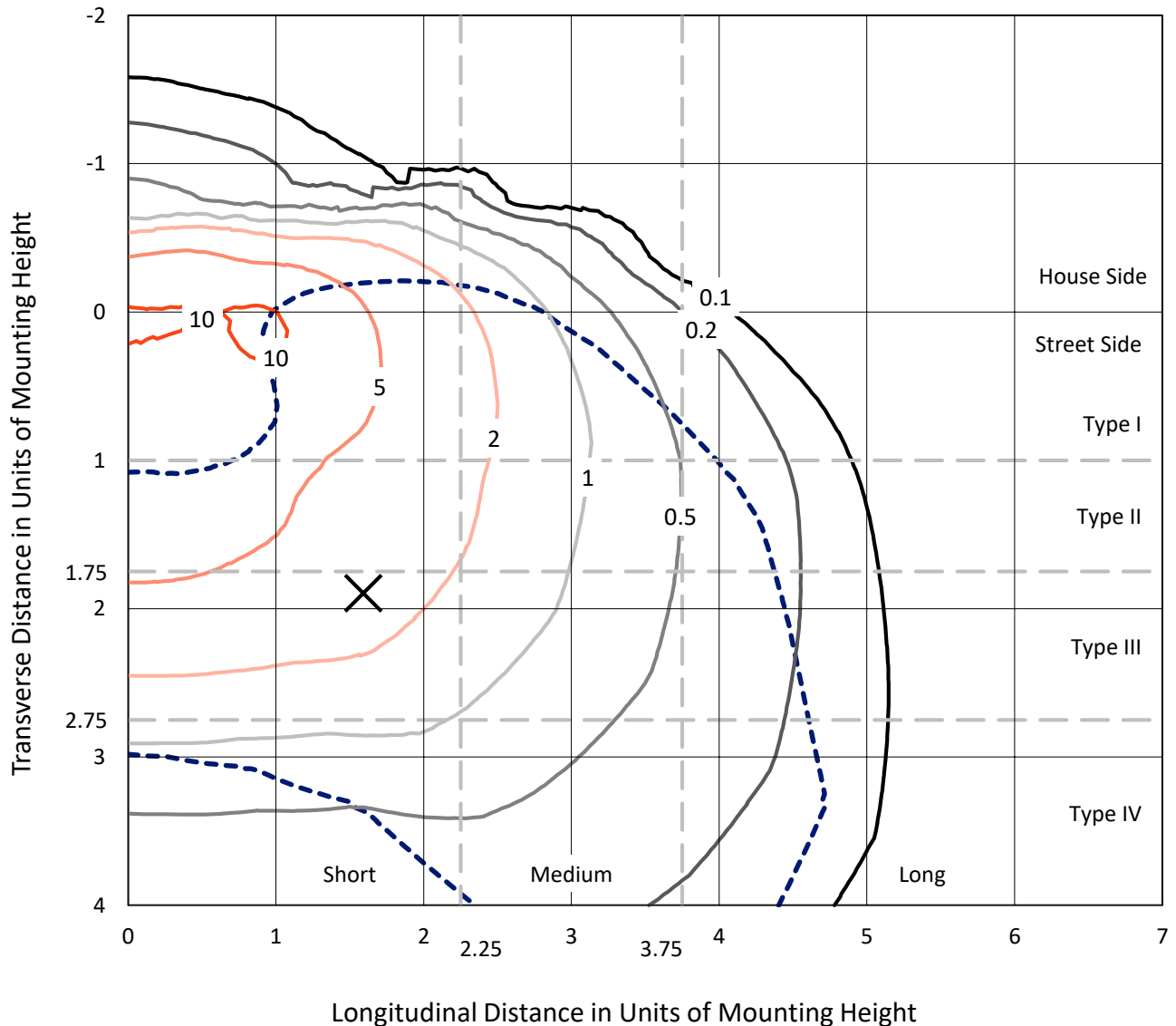
Input Watts (W): 73
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

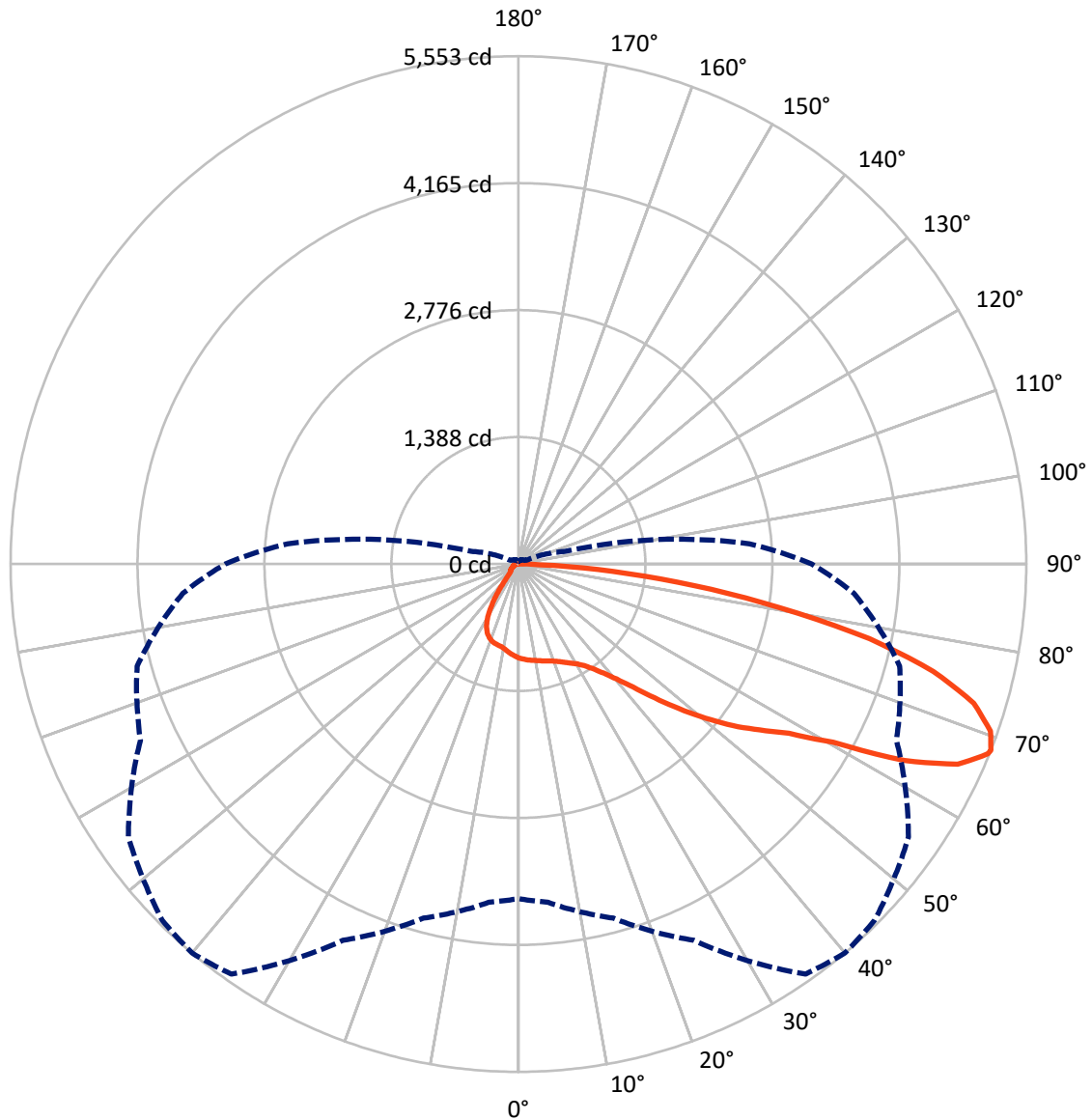
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.1 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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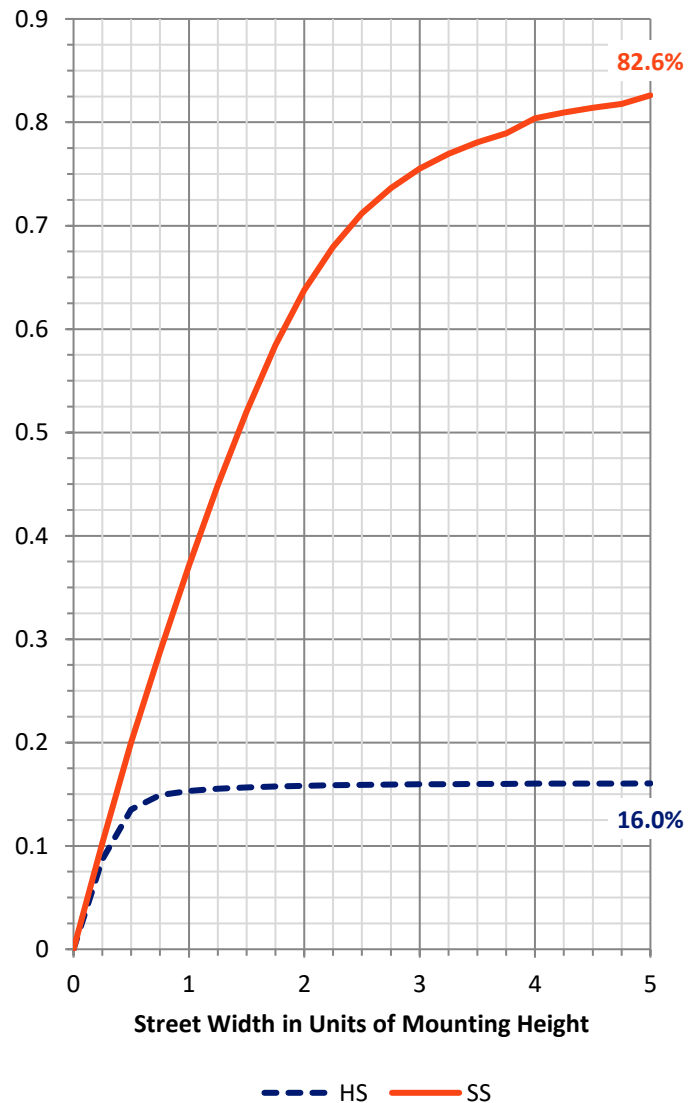
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1502.0	0.0	1502.0
	% Fixture	16.2	0.0	16.2
Street Side	Lumens	7757.0	0.0	7757.0
	% Fixture	83.8	0.0	83.8
Total	Lumens	9259.0	0.0	9259.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.6	1.1
10°-20°	292.4	3.2
20°-30°	490.7	5.3
30°-40°	726.7	7.8
40°-50°	1229.3	13.3
50°-60°	1876.2	20.3
60°-70°	2456.6	26.5
70°-80°	1766.2	19.1
80°-90°	323.3	3.5
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°	9259.0	100.0
0°-180°	9259.0	100.0

Coefficient of Utilization



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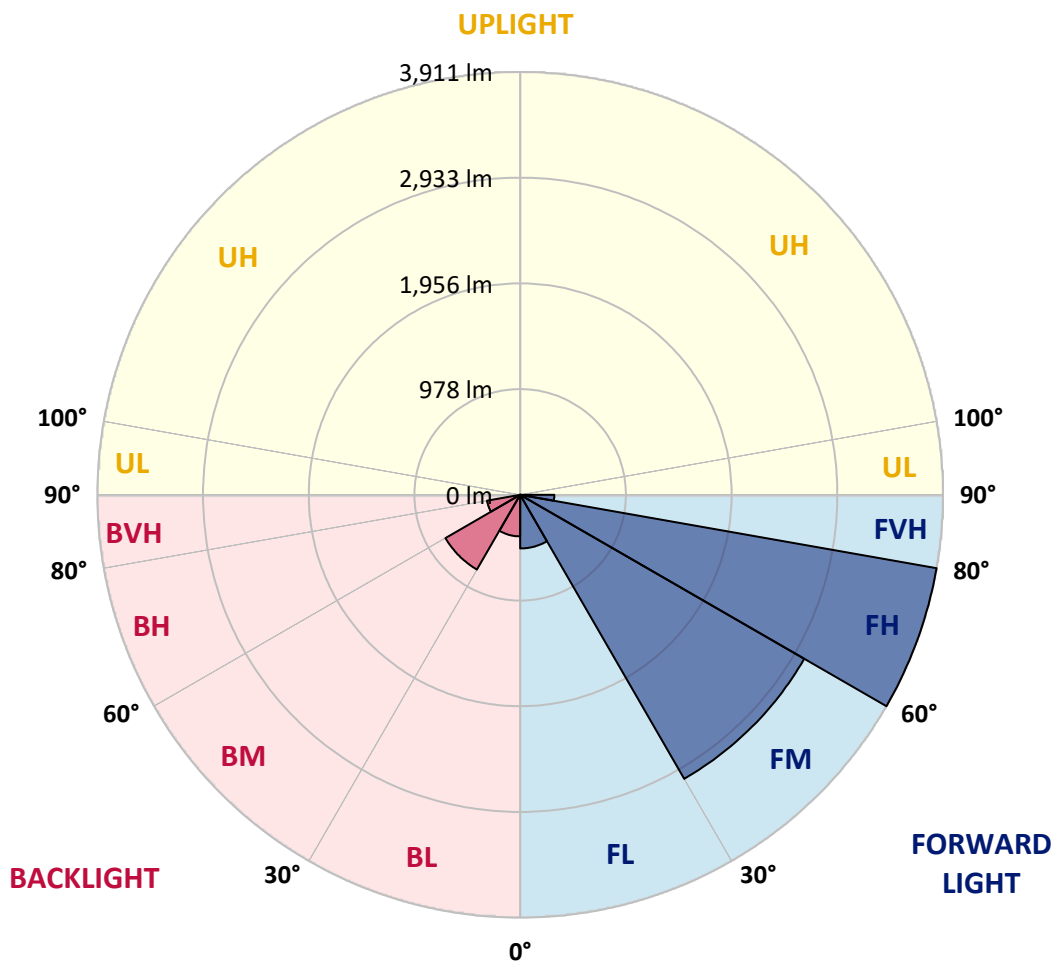
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	496.4	5.4			
FM	(30°-60°)	3033.9	32.8			
FH	(60°-80°)	3911.1	42.2			G2/5000
FVH	(80°-90°)	315.6	3.4			G3/500
BL	(0°-30°)	384.3	4.2	B1/500		
BM	(30°-60°)	798.3	8.6	B1/1000		
BH	(60°-80°)	311.7	3.4	B1/500		G1/500
BVH	(80°-90°)	7.7	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1028.9	1028.9	1028.9	1028.9	1028.9	1028.9	1028.9	1028.9	1028.9	1028.9	1028.9
2.5°	1061.4	1063.7	1060.6	1052.9	1044.4	1039.7	1038.9	1038.2	1034.3	1028.9	1021.1
5°	1072.3	1073.0	1069.9	1063.7	1056.0	1054.4	1052.1	1052.9	1050.6	1045.1	1036.6
7.5°	1076.9	1078.5	1074.6	1068.4	1062.2	1062.2	1061.4	1063.7	1062.2	1059.9	1049.8
10°	1075.4	1077.7	1075.4	1073.0	1070.7	1073.0	1071.5	1076.9	1077.7	1077.7	1066.1
12.5°	1073.0	1076.1	1076.9	1079.2	1083.1	1085.5	1088.6	1100.2	1105.6	1109.5	1100.2
15°	1075.4	1076.9	1083.1	1087.0	1094.8	1100.2	1107.2	1126.5	1135.8	1146.7	1142.1
17.5°	1085.5	1089.3	1098.6	1102.5	1110.3	1114.1	1122.7	1146.7	1165.3	1184.7	1187.8
20°	1107.2	1109.5	1125.0	1126.5	1130.4	1134.3	1143.6	1170.0	1197.9	1225.8	1233.5
22.5°	1131.2	1136.6	1151.4	1149.0	1156.8	1158.3	1166.9	1195.5	1234.3	1268.4	1285.5
25°	1156.0	1160.7	1175.4	1176.9	1186.2	1192.4	1202.5	1230.4	1280.1	1323.5	1353.7
27.5°	1176.9	1186.2	1200.2	1201.8	1219.6	1227.3	1242.1	1273.9	1333.6	1387.1	1436.7
30°	1215.7	1218.0	1231.2	1235.9	1259.9	1266.9	1283.9	1324.3	1397.1	1463.8	1541.3
32.5°	1263.8	1263.0	1275.4	1283.2	1312.6	1325.0	1346.7	1393.3	1473.9	1556.8	1666.9
35°	1352.2	1344.4	1352.2	1359.9	1394.0	1407.2	1430.5	1500.3	1594.8	1735.9	1871.6
37.5°	1555.3	1543.7	1527.4	1488.6	1497.1	1514.2	1548.3	1642.9	1782.5	2044.5	2175.6
40°	1907.3	1881.7	1813.5	1711.1	1650.7	1652.2	1684.0	1808.1	2012.7	2398.1	2496.5
42.5°	2226.0	2208.1	2125.9	1985.6	1846.0	1838.3	1849.1	1994.1	2263.9	2726.0	2777.2
45°	2526.0	2534.5	2415.1	2305.0	2138.3	2087.2	2074.0	2192.6	2542.3	3018.3	3023.0
47.5°	2803.6	2817.5	2673.3	2569.4	2405.1	2360.9	2319.8	2401.2	2805.1	3267.2	3229.2
50°	3102.1	3112.9	2912.9	2827.6	2689.6	2648.5	2617.5	2653.2	3074.2	3498.3	3413.0
52.5°	3514.5	3454.1	3202.9	3061.8	2939.2	2936.1	2912.1	2934.6	3380.4	3706.0	3552.5
55°	4001.4	3843.3	3576.6	3350.9	3193.6	3202.1	3173.4	3210.6	3683.6	3884.4	3682.0
57.5°	4173.6	4169.7	4045.6	3829.3	3509.9	3490.5	3440.9	3482.8	3945.6	4051.1	3773.5
60°	4412.4	4433.3	4447.3	4317.0	4132.5	3956.5	3790.6	3786.7	4189.8	4203.0	3818.5
62.5°	4566.7	4586.0	4694.6	4677.5	4791.5	4733.3	4544.2	4124.7	4376.7	4301.5	3835.5
65°	4278.2	4326.3	4600.0	4808.6	5197.0	5278.4	5251.3	4644.2	4503.9	4330.2	3803.7
67.5°	3756.4	3819.2	4119.3	4607.0	5448.2	5538.9	5489.3	5167.5	4558.9	4317.8	3716.1
68°	3658.7	3713.0	4007.6	4539.5	5473.8	5552.9	5507.9	5206.3	4561.2	4316.2	3682.8
70°	3188.9	3233.1	3520.7	4193.7	5402.5	5476.1	5469.9	5242.7	4541.1	4268.2	3458.7
72.5°	2474.1	2518.2	2773.3	3478.1	5072.9	5207.8	5202.4	5097.0	4503.9	4023.2	2899.7
75°	1788.7	1837.5	2070.1	2672.5	4389.9	4686.8	4746.5	4847.3	4117.0	3385.8	2063.1
77.5°	1291.7	1327.4	1528.2	2018.9	3585.9	3925.5	4046.4	4148.0	3369.6	2467.9	981.6
80°	861.4	887.0	1080.8	1501.0	2701.2	2901.3	3031.5	2861.7	1917.4	892.4	106.2
82.5°	530.3	546.6	699.3	1052.9	1868.5	1931.3	1932.1	1526.6	617.9	85.3	57.4
85°	284.5	290.0	379.9	574.5	987.0	1034.3	1015.7	641.2	124.8	45.7	31.0
87.5°	45.7	49.6	119.4	215.5	304.7	234.9	150.4	47.3	12.4	7.0	4.7
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1028.9	1028.9	1028.9	1028.9	1028.9	1028.9	1028.9	1028.9	1028.9	1028.9	1028.9
2.5°	1025.0	1022.7	1016.4	1013.3	1005.6	1007.9	1007.9	1001.7	1004.8	1017.2	1015.7
5°	1034.3	1035.1	1020.3	1012.6	995.5	990.9	983.9	974.6	973.8	982.3	983.1
7.5°	1042.0	1045.9	1025.0	1009.5	986.2	969.9	956.0	939.7	935.8	941.2	941.2
10°	1054.4	1058.3	1032.0	1010.2	976.1	949.8	925.7	904.8	896.3	896.3	897.0
12.5°	1087.0	1084.7	1054.4	1021.1	980.8	938.9	900.9	873.0	852.9	852.1	849.0
15°	1132.0	1123.4	1094.0	1043.6	991.6	938.1	885.4	842.0	807.1	797.8	793.9
17.5°	1180.0	1169.2	1133.5	1072.3	1008.7	937.4	867.6	807.1	749.0	726.5	719.5
20°	1232.0	1218.8	1182.4	1105.6	1025.8	931.9	841.2	756.7	677.6	635.0	624.1
22.5°	1289.4	1278.5	1234.3	1139.7	1037.4	920.3	800.1	693.1	592.3	531.1	526.4
25°	1363.8	1353.7	1288.6	1170.0	1038.2	898.6	745.9	611.7	485.4	413.2	398.5
27.5°	1453.0	1435.1	1332.0	1188.6	1025.8	860.6	675.3	503.2	360.5	300.1	298.5
30°	1549.9	1517.3	1366.9	1193.2	997.8	800.1	578.4	369.8	255.9	214.8	214.8
32.5°	1663.8	1604.1	1402.6	1185.5	952.1	716.4	442.7	256.6	176.0	156.6	156.6
35°	1830.5	1738.3	1448.3	1166.1	887.7	600.9	314.8	169.8	138.8	136.5	136.5
37.5°	2094.1	1940.6	1510.3	1133.5	799.4	458.2	204.7	131.0	132.6	132.6	131.8
40°	2374.8	2174.8	1595.6	1081.6	688.5	316.3	134.1	124.1	126.4	127.9	127.2
42.5°	2628.3	2397.3	1688.7	1011.8	557.5	199.3	122.5	119.4	117.8	119.4	120.2
45°	2847.8	2590.4	1782.5	921.1	411.7	130.3	119.4	112.4	107.8	108.5	109.3
47.5°	3035.4	2742.3	1846.0	825.7	272.9	115.5	115.5	103.1	98.5	98.5	98.5
50°	3199.8	2877.2	1884.8	711.7	162.8	114.0	108.5	94.6	89.9	89.2	89.9
52.5°	3319.2	2971.8	1880.2	573.0	109.3	110.1	99.2	86.8	81.4	83.0	83.7
55°	3413.7	3031.5	1839.1	419.4	102.3	103.1	92.3	78.3	74.4	75.2	75.2
57.5°	3473.4	3046.2	1755.3	272.9	100.0	92.3	83.0	69.8	65.1	65.1	65.1
60°	3492.8	3038.5	1641.4	174.4	99.2	83.0	75.2	62.8	58.1	58.1	58.1
62.5°	3476.5	2993.5	1448.3	125.6	92.3	77.5	68.2	55.8	51.2	49.6	49.6
65°	3418.4	2873.3	1116.5	103.9	83.0	71.3	62.0	50.4	44.2	41.9	41.1
67.5°	3248.6	2612.8	649.7	97.7	75.2	65.1	57.4	45.7	38.8	34.9	34.1
68°	3204.4	2535.3	534.2	96.9	75.2	64.4	56.6	44.2	37.2	33.3	32.6
70°	2888.1	2045.3	153.5	92.3	73.7	62.0	51.9	40.3	33.3	28.7	27.9
72.5°	2174.8	1198.6	96.1	82.2	72.9	55.0	50.4	40.3	29.5	24.8	23.3
75°	1214.2	272.9	81.4	61.3	68.2	54.3	49.6	36.4	26.4	20.2	19.4
77.5°	249.7	79.1	69.8	42.6	51.9	47.3	41.9	31.0	24.0	15.5	14.7
80°	70.6	58.9	62.0	31.0	29.5	33.3	31.0	27.1	17.8	11.6	11.6
82.5°	45.7	43.4	55.8	20.9	15.5	15.5	20.2	16.3	15.5	9.3	9.3
85°	27.9	36.4	27.1	9.3	7.8	6.2	7.0	7.0	9.3	6.2	6.2
87.5°	3.9	3.9	3.9	3.9	3.9	3.1	2.3	2.3	2.3	3.1	3.1
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)