

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: STREETWORKS

Report Number: P197150

Luminaire Tested: **NVN-AF-02-LED-U-SL4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197150
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24284)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-AF-02-LED-U-SL4-8030
Description: NAVION ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9482 lumens
Efficiency: N/A
Efficacy: 83.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G3

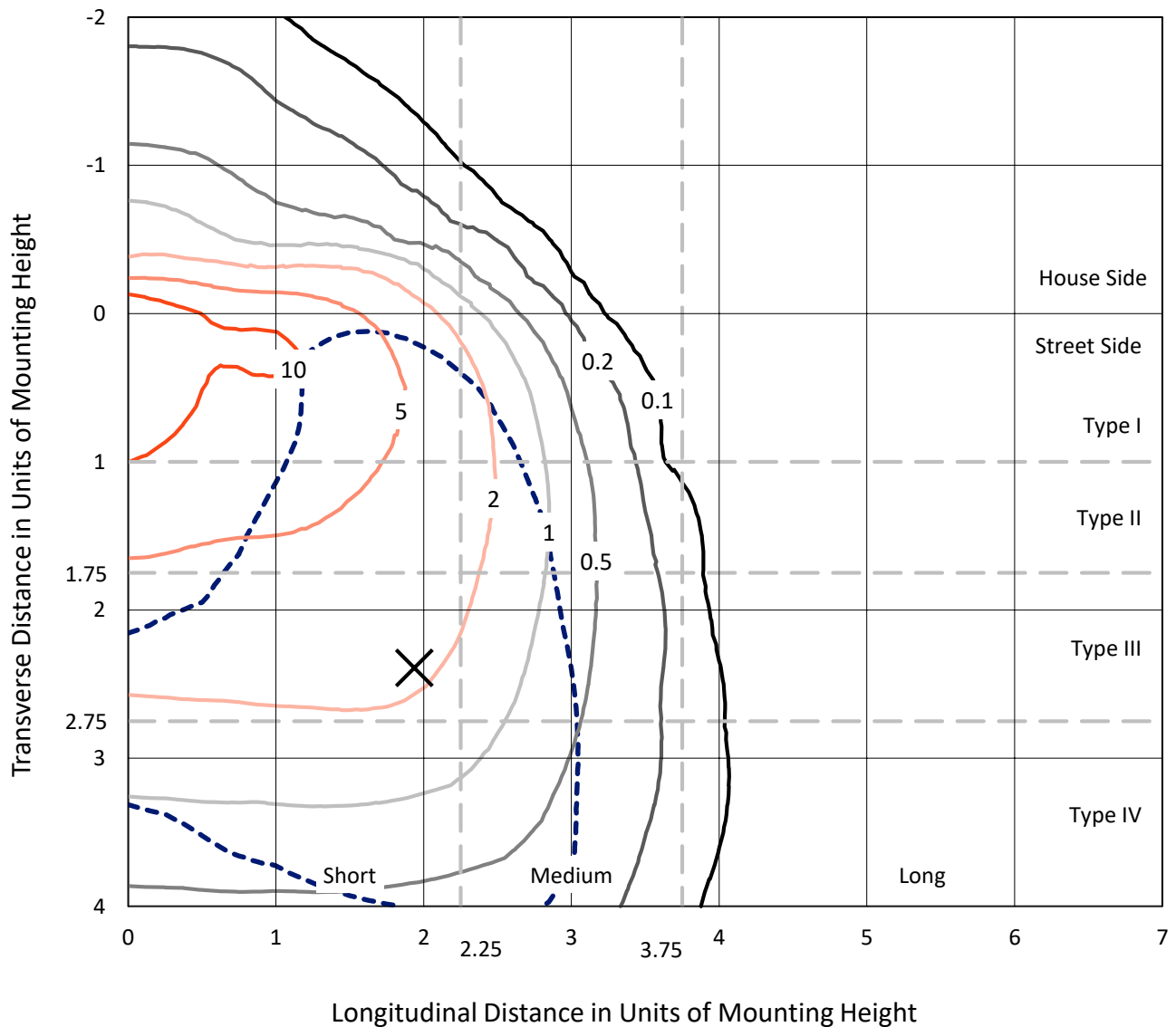
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

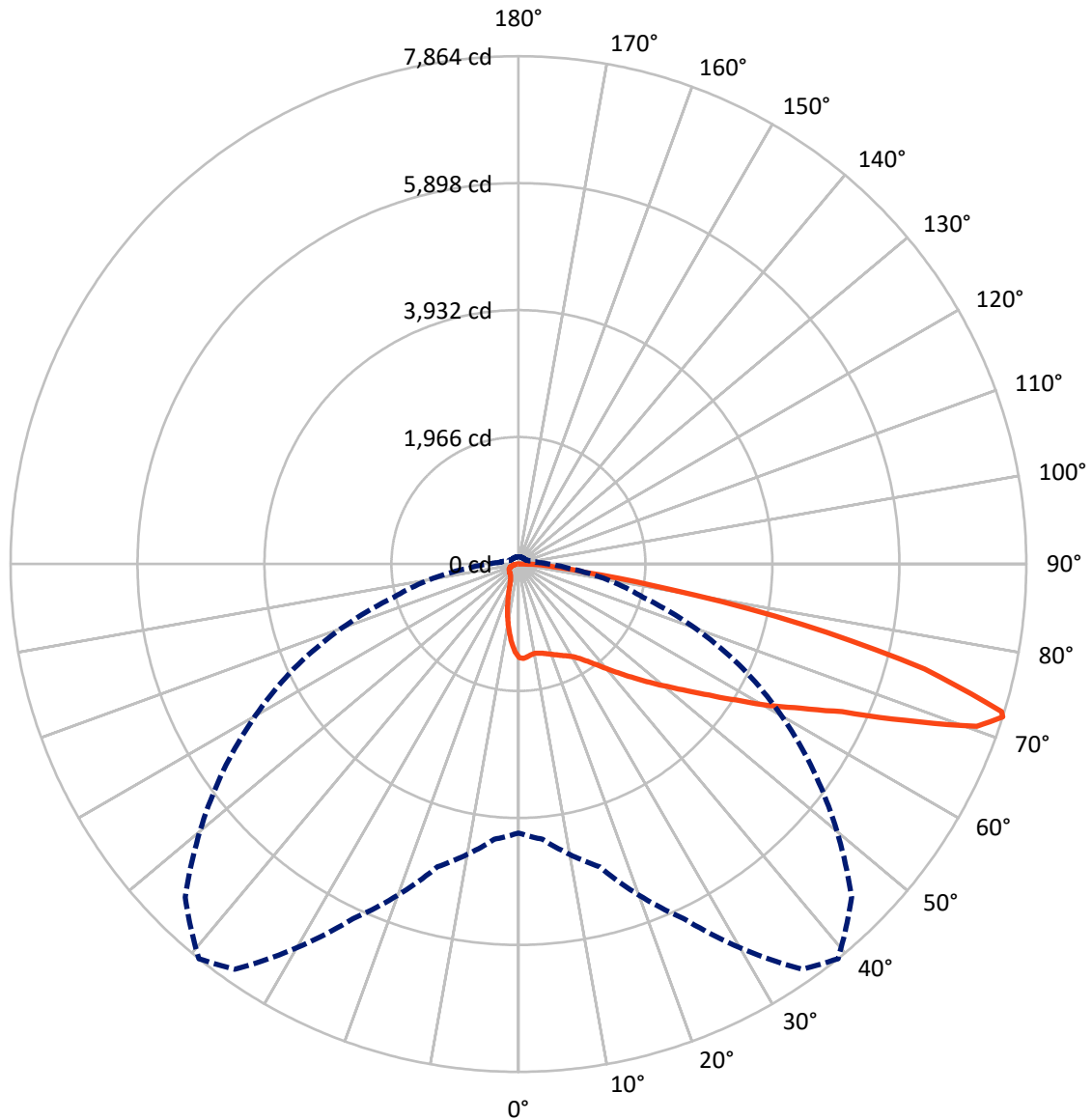
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.5 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1087.2	0.0	1087.2
	% Fixture	11.5	0.0	11.5
Street Side	Lumens	8394.8	0.0	8394.8
	% Fixture	88.5	0.0	88.5
Total	Lumens	9482.0	0.0	9482.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.4	1.3
10°-20°	312.7	3.3
20°-30°	487.3	5.1
30°-40°	750.3	7.9
40°-50°	1223.1	12.9
50°-60°	1900.6	20.0
60°-70°	2543.9	26.8
70°-80°	1829.5	19.3
80°-90°	310.1	3.3
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°	9482.0	100.0
0°-180°	9482.0	100.0

Coefficient of Utilization



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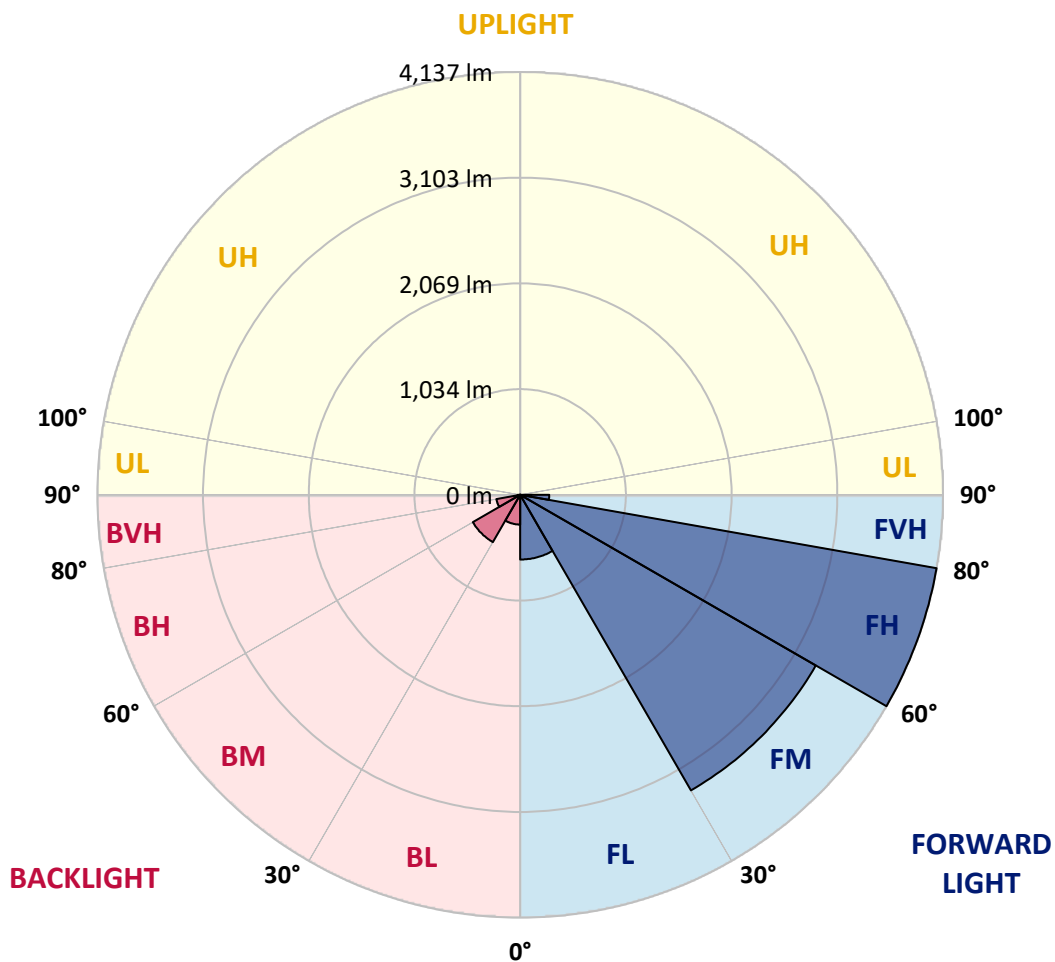
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	633.4	6.7			
FM	(30°-60°)	3339.7	35.2			
FH	(60°-80°)	4137.1	43.6			G2/5000
FVH	(80°-90°)	284.5	3.0			G3/500
BL	(0°-30°)	291.1	3.1	B1/500		
BM	(30°-60°)	534.3	5.6	B1/1000		
BH	(60°-80°)	236.2	2.5	B1/500		G1/500
BVH	(80°-90°)	25.6	0.3			G1/100
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°	39°	45°	55°	65°	75°	85°
0°	1448.1	1448.1	1448.1	1448.1	1448.1	1448.1	1448.1	1448.1	1448.1	1448.1	1448.1
2.5°	1479.3	1479.9	1478.0	1472.3	1467.2	1464.6	1460.2	1452.5	1442.3	1435.3	1429.6
5°	1465.3	1467.2	1465.9	1456.3	1447.4	1442.3	1435.3	1424.5	1411.2	1405.4	1392.1
7.5°	1454.4	1455.7	1451.9	1441.1	1423.9	1417.5	1404.8	1390.8	1378.7	1370.4	1354.5
10°	1446.8	1448.1	1444.9	1434.1	1415.0	1407.3	1392.1	1376.8	1360.9	1350.7	1332.9
12.5°	1436.0	1438.5	1438.5	1433.4	1420.7	1415.6	1400.3	1383.8	1369.1	1358.3	1336.0
15°	1434.1	1437.3	1443.0	1442.3	1438.5	1434.7	1422.6	1406.1	1393.3	1380.6	1353.2
17.5°	1450.0	1457.0	1468.4	1472.3	1469.7	1461.4	1447.4	1432.2	1418.2	1406.1	1372.3
20°	1490.1	1493.9	1511.1	1518.7	1506.0	1493.9	1475.4	1455.7	1443.0	1433.4	1390.1
22.5°	1550.6	1555.6	1569.6	1570.3	1543.5	1528.9	1505.4	1481.2	1469.1	1465.3	1414.3
25°	1647.3	1646.0	1649.8	1633.9	1585.6	1568.4	1539.7	1511.7	1503.4	1511.1	1450.0
27.5°	1763.1	1760.0	1747.9	1706.5	1633.3	1611.0	1576.6	1551.8	1551.8	1569.6	1498.4
30°	1896.8	1893.6	1854.2	1784.8	1689.9	1664.5	1628.2	1602.1	1615.5	1649.8	1563.9
32.5°	2038.1	2026.7	1971.3	1878.4	1770.8	1742.8	1707.8	1681.0	1706.5	1765.1	1658.1
35°	2171.2	2164.8	2096.7	1986.6	1875.2	1851.6	1827.4	1794.3	1835.1	1926.1	1791.2
37.5°	2308.6	2303.5	2220.2	2103.0	2002.5	1986.6	1966.2	1943.3	2008.8	2128.5	1971.3
40°	2462.0	2451.9	2346.8	2229.7	2150.8	2143.1	2132.3	2126.0	2231.6	2409.8	2199.2
42.5°	2635.8	2616.1	2480.5	2369.1	2312.5	2318.8	2313.1	2338.6	2500.2	2734.5	2470.3
45°	2834.4	2794.9	2613.5	2517.4	2491.3	2516.8	2528.9	2593.8	2817.9	3109.4	2773.3
47.5°	3020.3	2969.3	2759.3	2678.5	2693.1	2737.0	2771.4	2886.0	3166.0	3479.8	3082.6
50°	3191.5	3134.2	2915.2	2845.2	2916.5	2978.9	3050.2	3211.9	3536.5	3861.1	3366.5
52.5°	3318.2	3276.8	3071.2	3027.3	3173.0	3255.8	3369.7	3574.0	3910.7	4224.6	3619.9
55°	3416.2	3393.9	3223.3	3236.0	3463.3	3581.7	3719.8	3954.7	4306.7	4550.4	3823.5
57.5°	3529.5	3512.9	3397.1	3488.1	3823.5	3972.5	4135.4	4396.4	4683.5	4837.5	3983.3
60°	3649.1	3649.1	3590.6	3791.7	4274.2	4444.8	4607.1	4810.1	5059.0	5095.9	4048.2
62.5°	3739.5	3763.1	3784.1	4115.1	4701.9	4913.9	5092.1	5286.9	5447.9	5223.2	3895.5
65°	3870.6	3920.9	4039.3	4488.7	5231.5	5509.0	5749.6	5913.2	5763.0	5122.0	3397.1
67.5°	4096.0	4170.4	4422.5	5045.0	6042.4	6458.1	6691.7	6409.1	5701.3	4484.9	2602.1
70°	4299.0	4404.0	4835.0	5750.9	7096.5	7528.1	7420.5	6293.9	4965.5	3287.6	1600.8
72°	4164.1	4278.7	4854.1	6058.3	7659.8	7863.5	7296.4	5577.8	3836.9	2006.3	789.3
72.5°	4075.6	4194.6	4792.3	6050.7	7675.1	7820.9	7123.9	5293.3	3483.0	1755.5	638.4
75°	3404.7	3506.6	4120.8	5362.6	6763.6	6496.3	5559.3	3425.7	1600.8	567.1	328.4
77.5°	2223.3	2301.0	2841.4	3715.3	4737.6	4480.4	3383.7	1604.0	600.2	344.4	247.0
80°	1117.1	1172.5	1520.6	1953.5	2556.9	2352.6	1562.0	775.9	401.6	248.9	194.1
82.5°	777.2	828.1	1047.1	997.4	1068.7	1034.3	734.5	647.3	300.4	157.2	101.8
85°	651.8	704.6	866.3	711.0	581.8	530.2	526.4	611.7	198.6	77.7	85.9
87.5°	568.4	648.6	714.8	519.4	399.1	352.0	387.6	560.8	63.0	42.6	26.1
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°	1448.1	1448.1	1448.1	1448.1	1448.1	1448.1	1448.1	1448.1	1448.1	1448.1	1448.1
2.5°	1420.1	1418.2	1408.6	1394.0	1383.1	1376.1	1362.8	1362.1	1363.4	1352.0	1356.4
5°	1380.0	1372.3	1347.5	1313.8	1286.4	1260.3	1231.7	1222.1	1213.8	1196.6	1198.6
7.5°	1338.0	1324.6	1281.3	1225.9	1173.1	1124.7	1077.0	1053.4	1035.6	1013.3	1013.3
10°	1313.1	1292.1	1225.9	1145.1	1061.1	990.4	919.1	876.5	845.3	816.6	814.7
12.5°	1311.9	1280.0	1187.7	1076.3	961.1	861.8	764.5	698.9	652.4	618.7	615.5
15°	1322.0	1277.5	1155.9	1012.1	866.9	737.7	617.4	534.0	474.8	437.3	433.5
17.5°	1331.0	1274.3	1121.5	944.6	775.3	618.1	484.4	397.8	341.8	311.3	308.1
20°	1339.2	1267.3	1077.6	873.3	674.1	506.0	378.7	308.7	271.8	254.6	252.7
22.5°	1351.3	1260.9	1031.8	793.1	574.8	411.8	312.5	262.2	242.5	234.2	233.0
25°	1371.1	1261.6	987.2	711.0	483.8	343.1	270.5	239.3	228.5	222.8	222.8
27.5°	1399.7	1269.2	943.3	627.6	406.7	296.0	245.7	227.2	220.2	215.8	214.5
30°	1441.7	1283.2	896.8	548.7	345.6	263.5	231.1	219.6	213.9	210.0	209.4
32.5°	1502.8	1308.0	847.8	476.7	299.2	240.6	220.2	213.2	208.8	205.6	205.0
35°	1593.8	1352.0	800.1	415.6	266.1	224.1	211.3	205.6	203.0	201.8	201.1
37.5°	1727.5	1422.6	754.9	367.9	244.4	213.2	202.4	199.2	198.0	198.0	198.0
40°	1895.5	1515.5	714.2	334.2	232.3	205.0	196.0	193.5	193.5	194.1	194.1
42.5°	2099.9	1632.0	679.2	311.3	225.3	199.2	191.6	190.3	189.7	189.7	190.3
45°	2337.3	1769.5	657.5	293.4	220.2	196.0	188.4	187.8	185.2	184.0	184.0
47.5°	2576.0	1916.5	656.2	283.2	213.9	192.2	185.2	185.2	180.1	177.6	178.2
50°	2798.8	2048.3	670.3	280.7	210.0	186.5	182.0	182.7	175.7	172.5	171.9
52.5°	2978.3	2148.9	687.4	283.9	210.0	181.4	176.3	179.5	171.9	168.0	167.4
55°	3117.0	2218.9	693.8	290.9	212.6	177.0	171.2	176.3	170.6	165.5	165.5
57.5°	3216.3	2241.2	666.4	294.1	216.4	176.3	166.1	175.7	172.5	166.1	166.1
60°	3180.0	2112.0	564.6	282.0	215.8	175.0	162.3	177.0	178.9	171.9	171.9
62.5°	2896.8	1767.0	453.2	254.6	205.0	170.6	157.9	175.7	183.3	180.8	179.5
65°	2358.3	1295.9	351.4	222.1	186.5	161.0	148.3	164.2	173.1	175.7	176.3
67.5°	1661.9	820.5	273.1	189.0	163.6	147.0	137.5	145.1	148.3	149.6	152.1
70°	908.9	444.3	217.1	159.1	140.0	133.0	126.0	126.7	125.4	124.1	125.4
72°	456.4	290.3	183.3	138.1	124.1	119.7	116.5	114.6	114.6	112.7	113.3
72.5°	392.7	269.9	177.0	133.0	120.3	116.5	113.9	112.0	111.4	110.1	110.8
75°	261.6	213.9	147.7	111.4	102.5	99.9	101.2	99.3	99.9	98.7	99.3
77.5°	211.3	184.0	125.4	94.2	87.8	84.0	86.6	87.2	88.5	87.2	86.6
80°	177.0	156.6	105.0	77.7	73.2	70.0	71.3	75.7	76.4	72.6	71.9
82.5°	114.6	126.0	82.7	60.5	56.0	54.7	57.9	62.4	63.7	58.6	57.3
85°	96.1	101.2	59.8	41.4	36.9	35.6	42.0	46.5	49.6	44.6	43.3
87.5°	26.7	49.6	29.3	19.7	16.5	16.5	20.4	24.2	28.6	29.3	29.3
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)