

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: P265838

Luminaire Tested: **ARCH-M-AF48-130-D-U-T3-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265838
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-130-D-U-T3-7027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 845mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10546 lumens
Efficiency: N/A
Efficacy: 80.5 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 131
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

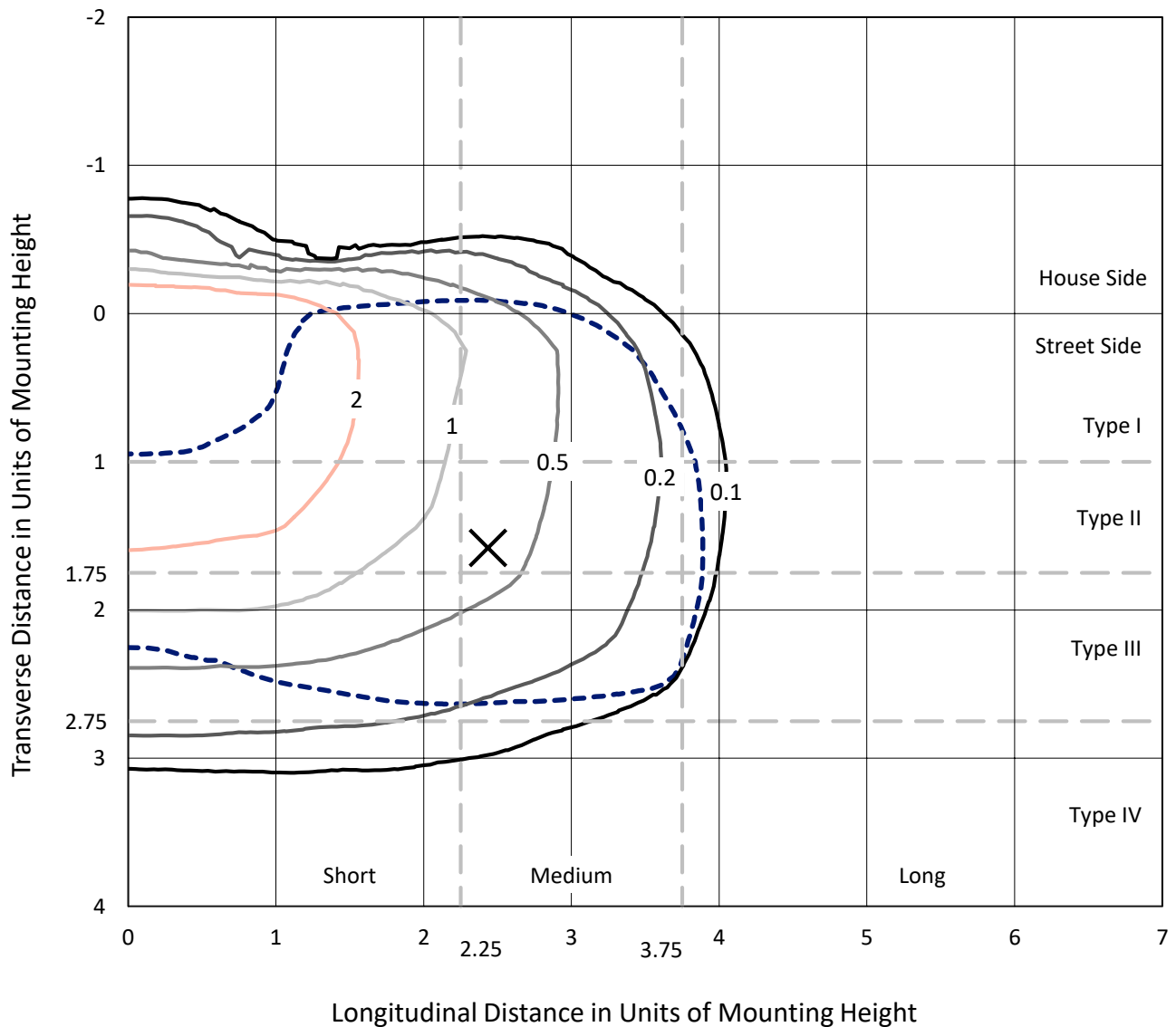


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

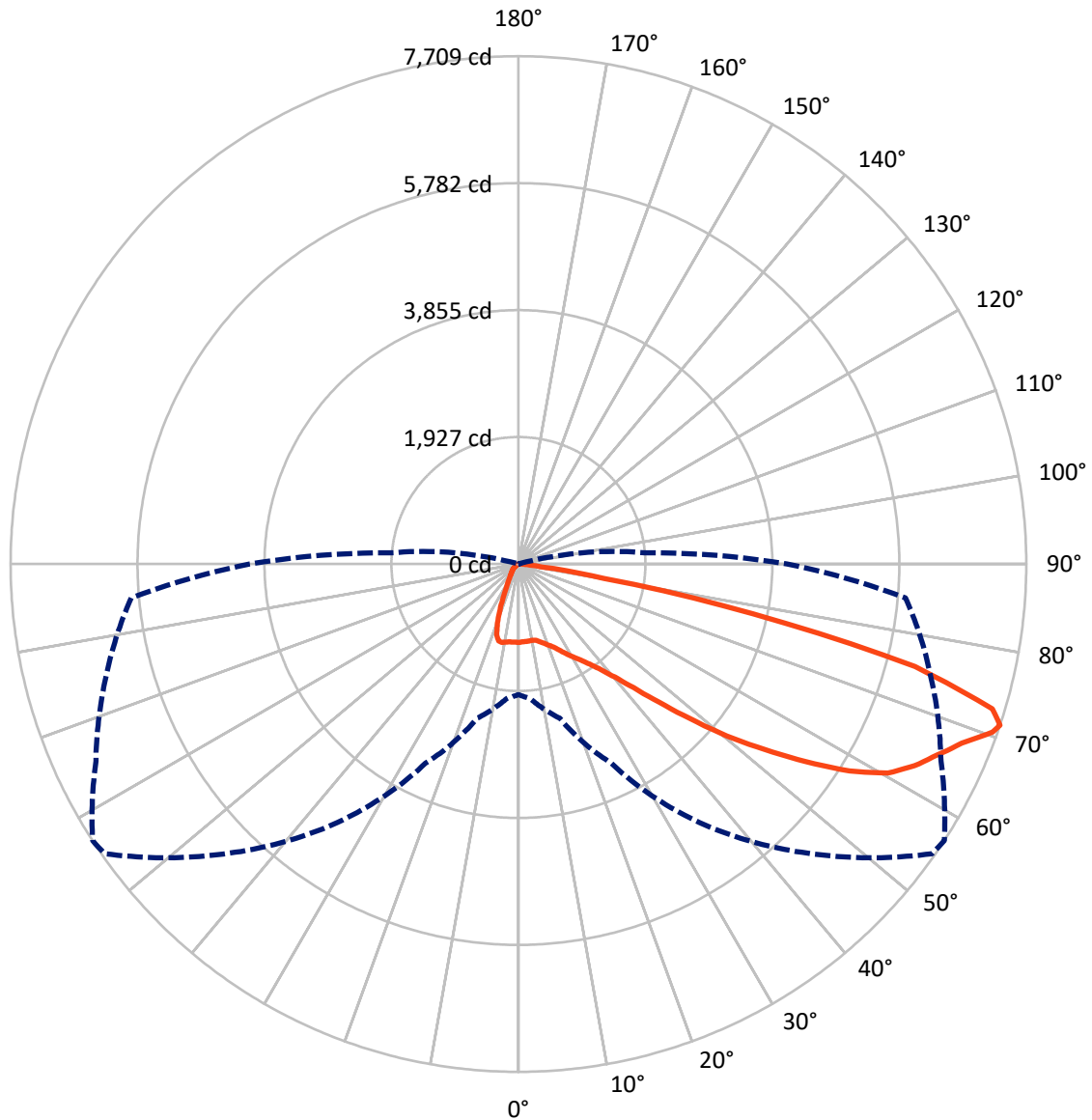


Based on 20 foot mounting height. Maximum calculated value = 3.7 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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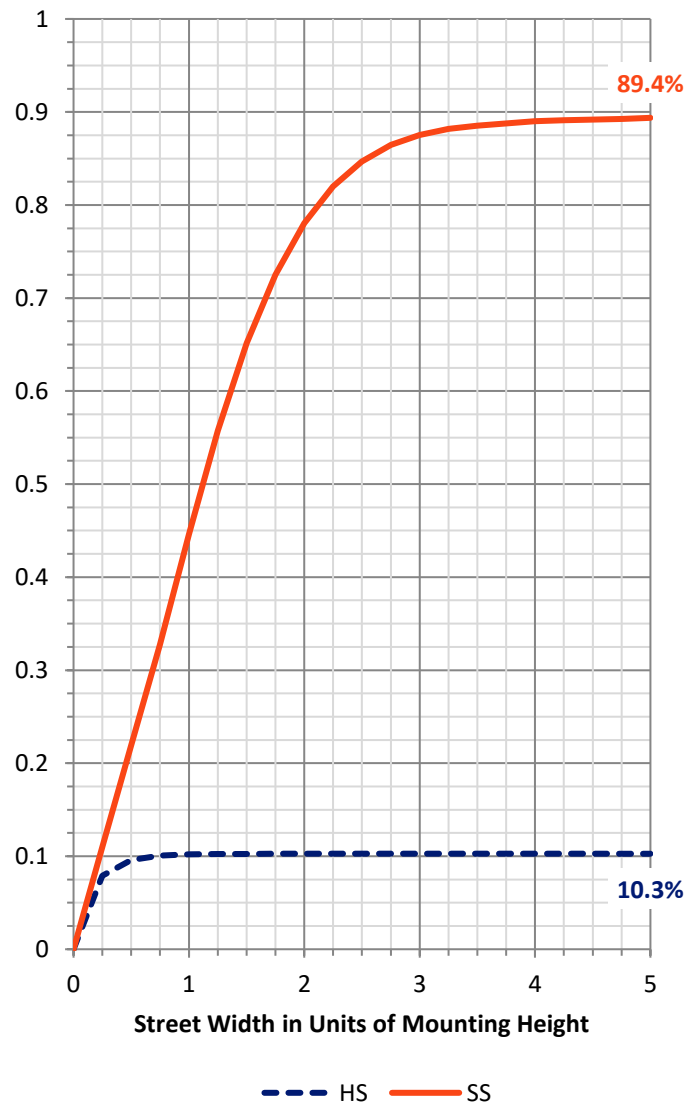
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1092.9	0.0	1092.9
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	9453.1	0.0	9453.1
	% Fixture	89.6	0.0	89.6
Total	Lumens	10546.0	0.0	10546.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.9	1.1
10°-20°	299.3	2.8
20°-30°	466.9	4.4
30°-40°	789.1	7.5
40°-50°	1532.6	14.5
50°-60°	2573.7	24.4
60°-70°	3071.5	29.1
70°-80°	1618.7	15.3
80°-90°	82.3	0.8
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°	10546.0	100.0
0°-180°	10546.0	100.0



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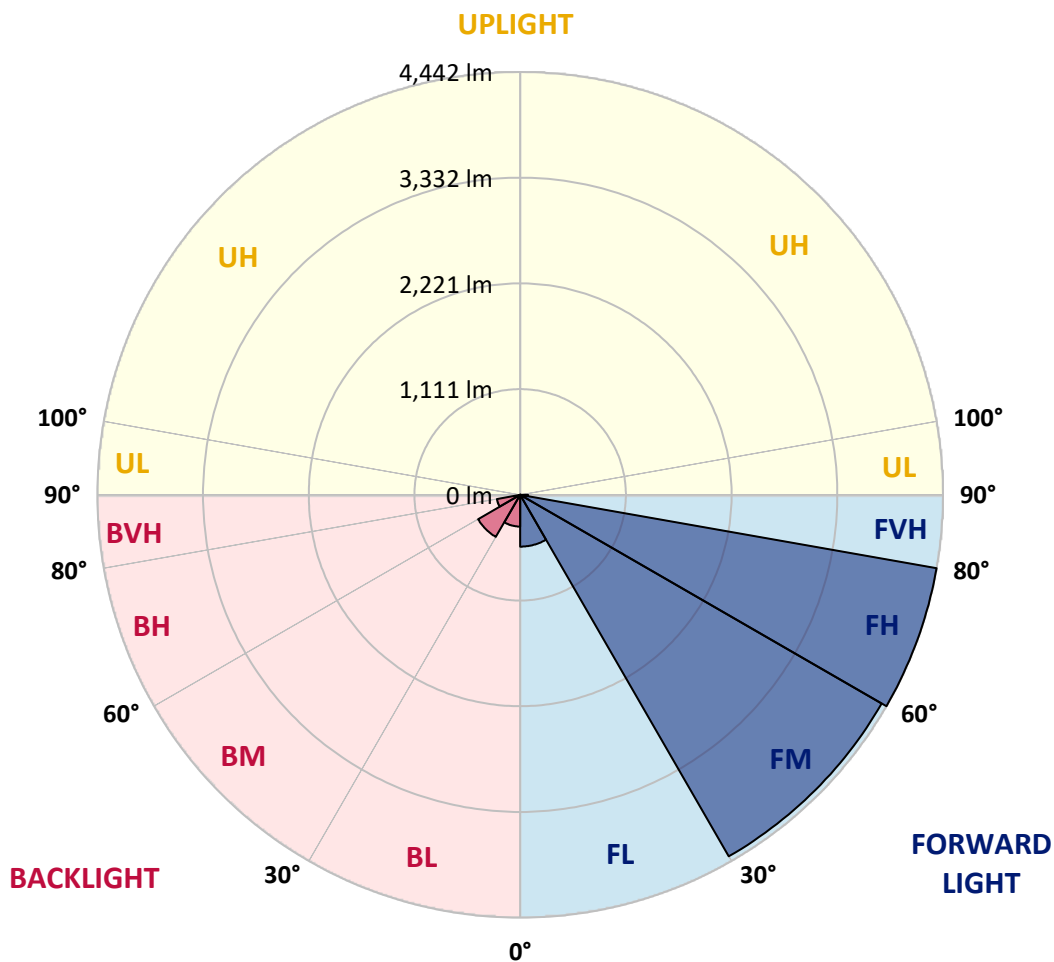
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	544.5	5.2			
FM (30°-60°)	4385.1	41.6			
FH (60°-80°)	4442.0	42.1			G2/5000
FVH (80°-90°)	81.5	0.8			G1/100
BL (0°-30°)	333.6	3.2	B1/500		
BM (30°-60°)	510.3	4.8	B1/1000		
BH (60°-80°)	248.2	2.4	B1/500		G1/500
BVH (80°-90°)	0.8	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	1191.8	1191.8	1191.8	1191.8	1191.8	1191.8	1191.8	1191.8	1191.8	1191.8	1191.8
2.5°	1174.7	1174.7	1174.7	1177.0	1179.6	1179.6	1184.4	1182.0	1182.0	1182.0	1186.9
5°	1142.7	1145.2	1147.7	1152.5	1162.3	1169.8	1182.0	1182.0	1184.4	1189.4	1191.8
7.5°	1098.4	1101.0	1108.2	1118.1	1137.9	1155.0	1174.7	1179.6	1186.9	1199.2	1204.2
10°	1071.5	1076.3	1086.2	1098.4	1120.5	1142.7	1167.3	1174.7	1196.8	1218.9	1231.1
12.5°	1064.0	1066.6	1076.3	1096.0	1123.1	1150.1	1182.0	1189.4	1221.3	1255.7	1275.5
15°	1076.3	1078.9	1083.7	1105.9	1137.9	1172.2	1214.0	1223.9	1263.1	1302.5	1327.1
17.5°	1098.4	1098.4	1103.4	1123.1	1157.5	1196.8	1250.8	1265.6	1309.8	1354.0	1381.1
20°	1113.2	1113.2	1120.5	1140.3	1179.6	1231.1	1295.0	1314.7	1363.8	1413.0	1437.6
22.5°	1127.9	1130.4	1137.9	1159.9	1204.2	1275.5	1349.2	1368.7	1425.3	1477.0	1501.4
25°	1169.8	1167.3	1169.8	1189.4	1241.0	1329.5	1422.8	1447.3	1506.4	1563.0	1575.2
27.5°	1285.3	1280.4	1248.4	1236.1	1275.5	1385.9	1516.2	1540.9	1609.7	1666.1	1666.1
30°	1550.7	1540.9	1462.3	1361.4	1329.5	1437.6	1604.7	1639.0	1727.6	1776.8	1761.9
32.5°	1887.2	1865.2	1764.5	1592.4	1464.6	1506.4	1698.1	1737.4	1850.5	1892.2	1860.3
35°	2256.0	2253.5	2128.2	1907.0	1725.1	1649.0	1818.4	1865.2	2007.7	2044.6	1993.0
37.5°	2646.6	2656.5	2572.9	2268.2	2054.5	1882.4	1978.2	2032.3	2206.7	2251.1	2201.8
40°	3081.6	3079.2	3047.2	2686.0	2450.0	2214.1	2209.2	2258.3	2469.7	2538.5	2469.7
42.5°	3632.0	3627.1	3511.7	3187.2	2929.3	2646.6	2545.8	2563.1	2798.9	2912.0	2811.3
45°	4192.4	4158.0	4025.2	3745.2	3516.7	3182.3	2990.6	2990.6	3192.1	3347.1	3189.7
47.5°	4504.6	4470.1	4416.0	4261.2	4192.4	3818.9	3536.3	3501.9	3659.2	3816.4	3595.2
50°	4914.8	4914.8	4779.7	4720.8	4838.7	4575.7	4138.3	4103.9	4180.2	4305.4	4015.5
52.5°	5239.3	5180.3	5084.4	5136.1	5472.7	5352.3	4740.4	4674.1	4733.0	4765.0	4381.7
55°	5374.4	5317.8	5310.5	5499.8	6020.7	5853.6	5357.2	5298.3	5293.4	5136.1	4701.1
57.5°	5401.5	5352.3	5445.6	5777.4	6554.0	6264.1	5971.7	5927.3	5789.8	5396.6	5028.0
60°	5172.9	5197.6	5423.5	5929.8	6868.5	6620.4	6490.2	6443.5	6126.4	5617.7	5391.6
62.5°	4703.5	4762.5	5185.1	5944.5	6753.1	6765.3	6777.6	6745.7	6386.9	5819.2	5757.7
65°	4148.2	4165.4	4674.1	5740.6	6551.6	6721.1	6989.0	6986.5	6586.0	6045.4	6170.6
67.5°	3418.3	3447.8	3887.7	5052.4	6148.4	6701.4	7266.7	7259.4	6812.0	6303.3	6416.4
70°	2543.5	2580.3	2936.6	3929.5	5249.1	6455.7	7630.4	7635.2	7050.3	6500.0	6246.9
71°	1983.2	2049.6	2423.1	3337.3	4789.6	6207.5	7664.8	7709.1	7077.4	6472.8	5897.8
72.5°	973.1	1051.7	1521.2	2349.2	3941.8	5652.1	7438.7	7524.7	6907.8	6136.2	5042.6
75°	253.1	267.9	454.6	960.8	2113.4	3745.2	5998.6	6217.3	5647.3	4671.5	3081.6
77.5°	159.7	164.7	213.7	373.5	791.2	1422.8	3524.1	3632.0	3226.6	2366.6	1086.2
80°	113.0	115.5	135.1	240.8	462.0	415.2	1268.0	1314.7	1167.3	626.7	194.2
82.5°	68.8	68.8	98.4	154.8	285.0	226.2	334.2	356.4	314.5	174.5	63.9
85°	39.3	41.9	61.4	105.7	135.1	110.6	125.4	132.7	135.1	115.5	26.9
87.5°	31.9	34.5	54.1	88.5	73.8	54.1	54.1	56.6	59.0	68.8	12.2
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°	1191.8	1191.8	1191.8	1191.8	1191.8	1191.8	1191.8	1191.8	1191.8	1191.8	1191.8
2.5°	1186.9	1186.9	1189.4	1186.9	1186.9	1186.9	1189.4	1189.4	1189.4	1194.3	1196.8
5°	1191.8	1191.8	1191.8	1189.4	1186.9	1186.9	1191.8	1194.3	1194.3	1201.8	1201.8
7.5°	1204.2	1204.2	1199.2	1194.3	1189.4	1182.0	1184.4	1186.9	1184.4	1186.9	1186.9
10°	1231.1	1231.1	1223.9	1214.0	1199.2	1177.0	1147.7	1110.8	1076.3	1064.0	1059.1
12.5°	1275.5	1273.0	1258.3	1241.0	1209.1	1132.9	1022.4	892.0	784.0	754.4	744.7
15°	1324.6	1319.6	1302.5	1273.0	1186.9	985.4	754.4	587.3	484.1	459.6	454.6
17.5°	1376.2	1368.7	1344.3	1285.3	1086.2	732.3	486.6	368.7	312.2	307.2	309.6
20°	1430.2	1420.4	1385.9	1260.7	877.4	489.0	314.5	285.0	280.1	280.1	282.5
22.5°	1491.6	1479.4	1432.6	1172.2	639.0	324.4	270.3	267.9	265.4	262.9	262.9
25°	1563.0	1548.1	1477.0	1012.5	439.9	265.4	258.1	250.6	245.7	240.8	238.4
27.5°	1649.0	1629.3	1511.3	815.9	302.3	248.2	243.4	231.0	221.2	211.3	211.3
30°	1734.9	1710.5	1501.4	614.4	245.7	231.0	221.2	206.4	191.7	181.8	179.4
32.5°	1825.8	1801.3	1437.6	412.9	223.6	211.3	199.1	177.0	159.7	147.4	144.9
35°	1961.0	1941.3	1312.2	272.7	201.5	186.8	169.6	147.4	125.4	113.0	110.6
37.5°	2162.6	2138.0	1157.5	208.9	177.0	154.8	140.0	115.5	93.3	81.0	78.6
40°	2432.9	2359.2	973.1	184.3	154.8	127.7	108.2	83.5	66.4	59.0	59.0
42.5°	2747.5	2572.9	774.1	167.2	137.6	105.7	78.6	56.6	46.7	44.2	44.2
45°	3081.6	2772.0	575.0	154.8	120.5	83.5	56.6	39.3	34.5	31.9	31.9
47.5°	3425.6	2934.1	400.6	140.0	100.8	63.9	39.3	29.5	24.6	22.1	22.1
50°	3747.5	3039.9	282.5	125.4	86.0	46.7	29.5	22.1	17.2	17.2	17.2
52.5°	3971.2	3030.1	203.9	108.2	66.4	31.9	19.7	14.7	14.7	14.7	14.7
55°	4167.9	2993.2	159.7	93.3	51.7	22.1	14.7	12.2	12.2	9.8	9.8
57.5°	4335.0	2934.1	135.1	76.1	36.9	17.2	9.8	9.8	7.4	7.4	7.4
60°	4477.4	2860.5	113.0	63.9	24.6	12.2	7.4	4.9	4.9	2.4	4.9
62.5°	4671.5	2813.9	98.4	49.1	17.2	7.4	4.9	2.4	2.4	0.0	0.0
65°	4814.1	2725.3	83.5	34.5	9.8	4.9	2.4	2.4	0.0	0.0	0.0
67.5°	4819.0	2565.6	61.4	19.7	7.4	4.9	2.4	0.0	0.0	0.0	0.0
70°	4430.8	2187.2	39.3	9.8	4.9	2.4	2.4	0.0	0.0	0.0	0.0
71°	4074.4	1936.4	31.9	7.4	4.9	2.4	0.0	0.0	0.0	0.0	0.0
72.5°	3356.8	1422.8	24.6	7.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0
75°	1850.5	516.0	12.2	4.9	2.4	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	592.3	157.3	7.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	100.8	24.6	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	34.5	9.8	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	9.8	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.9	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)