

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: P214598

Luminaire Tested: **ARCH-AF16-40-D-U-T2R-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214598
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF16-40-D-U-T2R-7050
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4783.9 lumens
Efficiency: N/A
Efficacy: 113.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G1

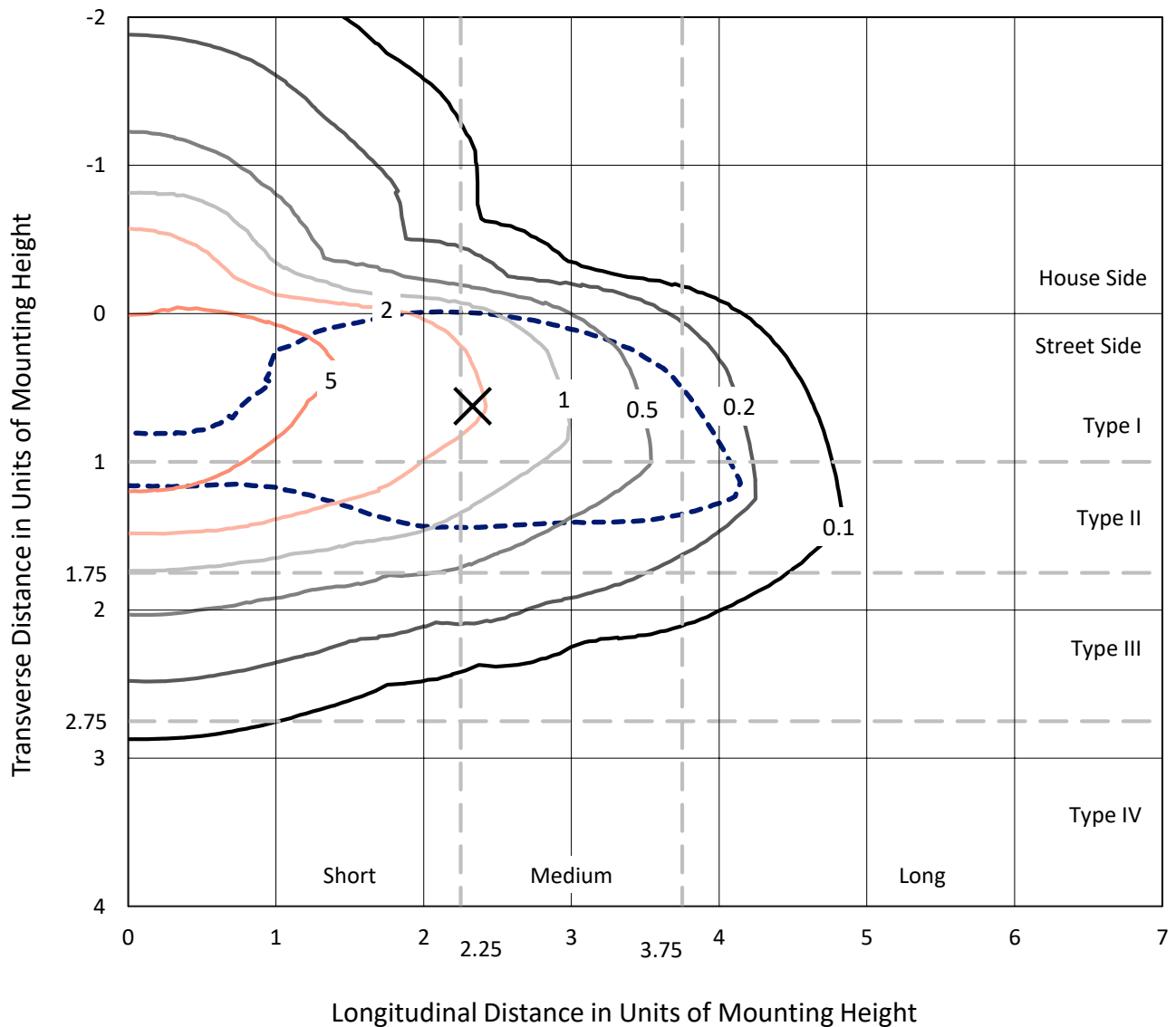
Input Watts (W): 42
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P214598
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Iso-Footcandle Lines of Horizontal Illumination

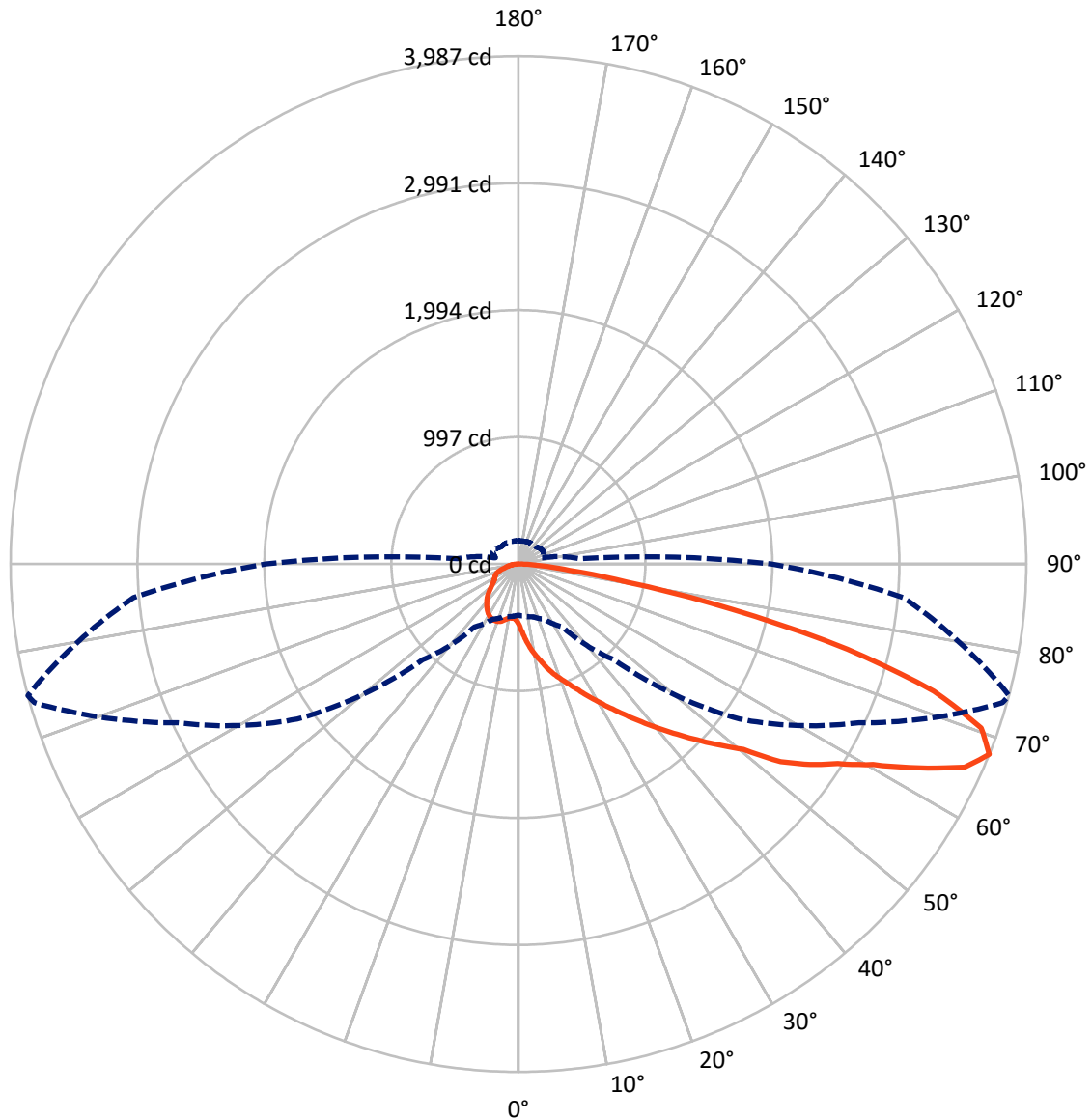
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.9 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P214598
CATALOG NUMBER: ARCH-AF16-40-D-U-T2R-7050

Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	816.9	0.0	816.9
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	3967.1	0.0	3967.1
	% Fixture	82.9	0.0	82.9
Total	Lumens	4783.9	0.0	4783.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.7	1.2
10°-20°	201.3	4.2
20°-30°	367.1	7.7
30°-40°	602.5	12.6
40°-50°	871.3	18.2
50°-60°	1026.9	21.5
60°-70°	997.9	20.9
70°-80°	554.7	11.6
80°-90°	106.6	2.2
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°	4783.9	100.0
0°-180°	4783.9	100.0

Coefficient of Utilization



REPORT NUMBER: P214598

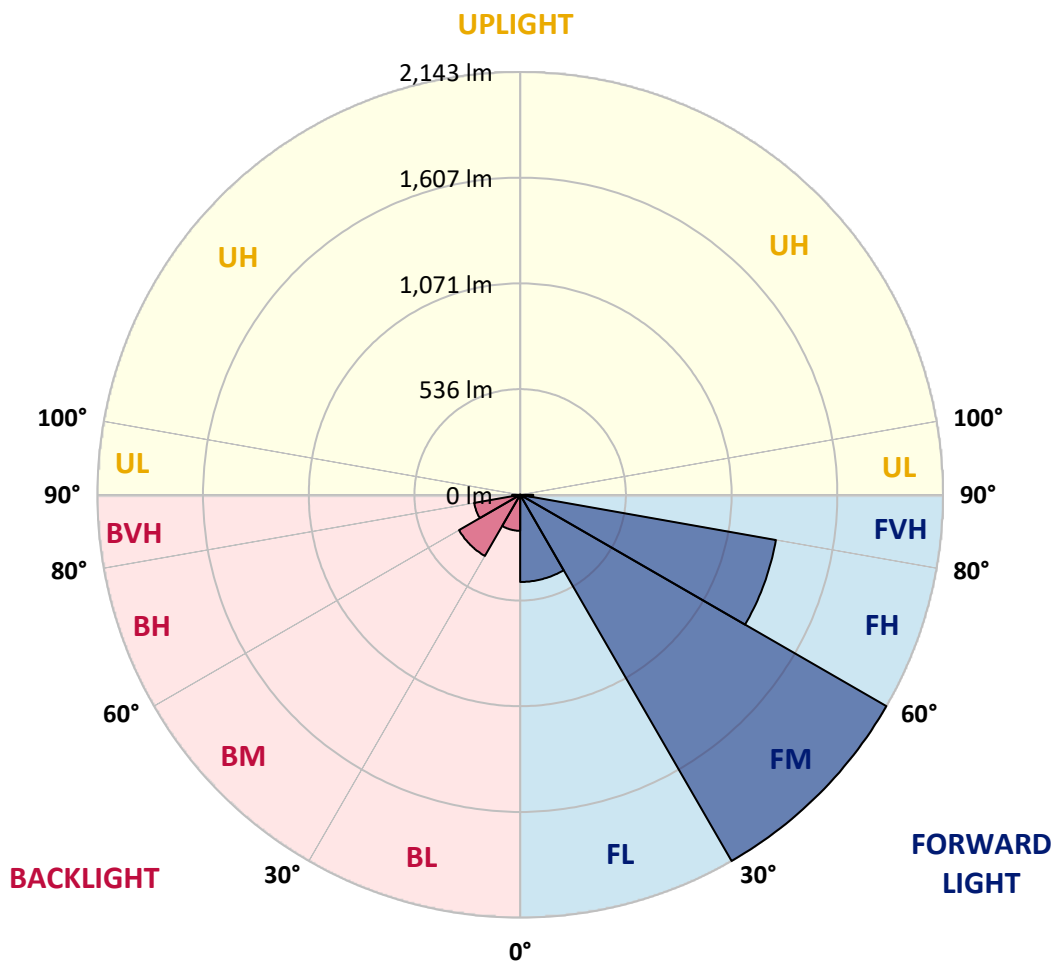
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	441.7	9.2			
FM (30°-60°)	2143.0	44.8			
FH (60°-80°)	1316.0	27.5			G1/1800
FVH (80°-90°)	66.4	1.4			G1/100
BL (0°-30°)	182.3	3.8	B1/500		
BM (30°-60°)	357.8	7.5	B1/1000		
BH (60°-80°)	236.5	4.9	B1/500		G1/500
BVH (80°-90°)	40.3	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-G1

Type II Medium





REPORT NUMBER: P214598

CATALOG NUMBER: ARCH-AF16-40-D-U-T2R-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0
2.5°	672.1	674.1	670.1	661.1	648.1	624.1	603.1	566.1	533.1	529.1	494.0
5°	790.1	792.1	787.1	776.1	762.1	736.1	707.1	659.1	606.1	596.1	522.1
7.5°	871.1	872.1	866.1	855.1	844.1	818.1	789.1	735.1	670.1	662.1	558.1
10°	940.1	942.1	934.1	927.1	915.1	889.1	859.1	802.1	735.1	724.1	595.1
12.5°	1004.1	1006.1	1001.1	995.1	991.1	967.1	934.1	866.1	794.1	782.1	639.1
15°	1047.1	1049.1	1050.1	1058.1	1063.1	1046.1	1013.1	939.1	858.1	847.1	691.1
17.5°	1035.1	1040.1	1055.1	1084.1	1115.1	1116.1	1089.1	1011.1	921.1	909.1	744.1
20°	1000.1	1004.1	1022.1	1066.1	1127.1	1162.1	1160.1	1084.1	980.1	967.1	793.1
22.5°	1029.1	1034.1	1034.1	1061.1	1121.1	1186.1	1212.1	1156.1	1039.1	1027.1	842.1
25°	1153.1	1156.1	1135.1	1124.1	1146.1	1206.1	1255.1	1234.1	1111.1	1097.1	895.1
27.5°	1326.1	1321.1	1295.1	1251.1	1227.1	1243.1	1293.1	1308.1	1194.1	1177.1	950.1
30°	1498.2	1495.1	1465.1	1406.1	1352.1	1318.1	1335.1	1374.1	1284.1	1264.1	1003.1
32.5°	1659.2	1654.2	1621.2	1552.2	1491.1	1428.1	1395.1	1434.1	1380.1	1357.1	1062.1
35°	1807.2	1794.2	1761.2	1689.2	1626.2	1566.2	1485.1	1491.1	1484.1	1460.1	1127.1
37.5°	1927.2	1917.2	1881.2	1814.2	1747.2	1690.2	1605.2	1556.2	1596.2	1573.2	1202.1
40°	2033.2	2022.2	1985.2	1918.2	1856.2	1802.2	1735.2	1635.2	1722.2	1696.2	1286.1
42.5°	2113.2	2105.2	2075.2	2009.2	1949.2	1900.2	1867.2	1735.2	1853.2	1828.2	1378.1
45°	2156.2	2148.2	2132.2	2079.2	2024.2	1986.2	1989.2	1854.2	1990.2	1969.2	1487.1
47.5°	2103.2	2109.2	2123.2	2113.2	2079.2	2061.2	2098.2	1977.2	2143.2	2123.2	1605.2
50°	1961.2	1967.2	2023.2	2092.2	2104.2	2126.2	2196.2	2119.2	2305.2	2289.2	1751.2
52.5°	1612.2	1645.2	1800.2	1965.2	2078.2	2169.2	2305.2	2330.2	2578.3	2578.3	2009.2
55°	1218.1	1247.1	1424.1	1712.2	1977.2	2173.2	2385.2	2473.2	2775.3	2779.3	2144.2
57.5°	987.1	1005.1	1092.1	1387.1	1765.2	2123.2	2480.2	2596.3	2939.3	2957.3	2318.2
60°	801.1	811.1	868.1	1073.1	1472.1	1988.2	2548.3	2772.3	3173.3	3198.3	2540.3
62.5°	644.1	654.1	692.1	815.1	1155.1	1735.2	2536.3	2955.3	3485.3	3526.4	2831.3
65°	514.1	525.1	550.1	626.1	856.1	1421.1	2413.2	3049.3	3808.4	3848.4	3024.3
67.5°	401.0	411.0	428.0	478.0	603.1	1063.1	2122.2	2950.3	3953.4	3987.4	3034.3
70°	303.0	308.0	322.0	354.0	431.0	706.1	1661.2	2618.3	3823.4	3854.4	2834.3
72.5°	235.0	234.0	242.0	258.0	301.0	486.0	1101.1	2129.2	3380.3	3412.3	2418.2
75°	192.0	191.0	196.0	201.0	218.0	326.0	650.1	1603.2	2728.3	2667.3	1814.2
77.5°	162.0	161.0	166.0	167.0	174.0	225.0	370.0	1055.1	1820.2	1715.2	1022.1
80°	137.0	136.0	142.0	144.0	149.0	165.0	213.0	571.1	914.1	866.1	488.0
82.5°	103.0	107.0	118.0	123.0	129.0	122.0	132.0	252.0	424.0	405.0	212.0
85°	50.0	59.0	89.0	99.0	106.0	77.0	90.0	119.0	191.0	182.0	86.0
87.5°	17.0	15.0	53.0	63.0	69.0	35.0	50.0	66.0	79.0	72.0	27.0
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: P214598

CATALOG NUMBER: ARCH-AF16-40-D-U-T2R-7050

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0
2.5°	479.0	464.0	442.0	425.0	414.0	405.0	401.0	400.0	398.0	397.0	397.0
5°	489.0	462.0	428.0	410.0	405.0	401.0	403.0	404.0	404.0	404.0	404.0
7.5°	504.1	466.0	425.0	413.0	412.0	412.0	418.0	421.0	423.0	423.0	423.0
10°	524.1	473.0	430.0	420.0	423.0	425.0	432.0	436.0	438.0	439.0	440.0
12.5°	551.1	488.0	440.0	432.0	436.0	437.0	442.0	444.0	446.0	447.0	447.0
15°	587.1	510.1	456.0	446.0	447.0	446.0	446.0	444.0	443.0	443.0	445.0
17.5°	624.1	531.1	470.0	456.0	452.0	444.0	438.0	433.0	430.0	428.0	429.0
20°	661.1	550.1	478.0	458.0	447.0	434.0	423.0	416.0	412.0	408.0	410.0
22.5°	698.1	568.1	481.0	452.0	436.0	417.0	405.0	394.0	385.0	379.0	380.0
25°	739.1	588.1	481.0	445.0	421.0	401.0	386.0	368.0	355.0	350.0	352.0
27.5°	780.1	605.1	476.0	432.0	404.0	384.0	362.0	341.0	333.0	330.0	331.0
30°	821.1	618.1	465.0	416.0	386.0	364.0	335.0	321.0	311.0	303.0	304.0
32.5°	862.1	627.1	450.0	396.0	367.0	339.0	315.0	299.0	281.0	271.0	272.0
35°	909.1	634.1	432.0	376.0	346.0	317.0	299.0	273.0	254.0	246.0	244.0
37.5°	958.1	639.1	413.0	354.0	325.0	301.0	283.0	251.0	233.0	222.0	221.0
40°	1011.1	641.1	390.0	331.0	305.0	291.0	262.0	238.0	207.0	200.0	200.0
42.5°	1074.1	640.1	367.0	308.0	283.0	268.0	247.0	236.0	209.0	202.0	198.0
45°	1146.1	640.1	342.0	281.0	261.0	239.0	230.0	223.0	205.0	208.0	210.0
47.5°	1228.1	638.1	312.0	259.0	243.0	224.0	219.0	204.0	197.0	199.0	201.0
50°	1341.1	641.1	285.0	241.0	230.0	214.0	208.0	200.0	197.0	198.0	197.0
52.5°	1498.2	631.1	259.0	230.0	220.0	199.0	199.0	198.0	199.0	198.0	198.0
55°	1584.2	609.1	240.0	224.0	213.0	192.0	196.0	198.0	200.0	199.0	199.0
57.5°	1706.2	594.1	225.0	220.0	209.0	190.0	194.0	198.0	199.0	198.0	198.0
60°	1850.2	584.1	215.0	221.0	206.0	190.0	195.0	198.0	197.0	196.0	196.0
62.5°	2017.2	580.1	208.0	224.0	203.0	191.0	195.0	198.0	194.0	193.0	193.0
65°	2080.2	544.1	199.0	226.0	205.0	191.0	194.0	195.0	190.0	189.0	188.0
67.5°	1983.2	482.0	186.0	222.0	211.0	191.0	191.0	190.0	184.0	183.0	181.0
70°	1766.2	400.0	166.0	209.0	215.0	192.0	187.0	182.0	176.0	176.0	172.0
72.5°	1446.1	315.0	140.0	186.0	212.0	195.0	179.0	172.0	165.0	165.0	161.0
75°	1042.1	235.0	112.0	155.0	199.0	194.0	169.0	160.0	152.0	151.0	146.0
77.5°	594.1	165.0	91.0	121.0	177.0	189.0	160.0	146.0	137.0	134.0	131.0
80°	305.0	111.0	74.0	95.0	147.0	175.0	153.0	130.0	120.0	115.0	110.0
82.5°	145.0	74.0	57.0	70.0	111.0	153.0	144.0	112.0	101.0	95.0	89.0
85°	65.0	44.0	38.0	45.0	79.0	119.0	127.0	92.0	79.0	99.0	73.0
87.5°	21.0	20.0	20.0	21.0	38.0	52.0	93.0	68.0	63.0	52.0	44.0
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)