

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: P143958

Luminaire Tested: **LDRL-5WQ-E05-E-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P143958  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33698)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: LDRL-5WQ-E05-E-8030  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (105) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12936.5 lumens  
Efficiency: N/A  
Efficacy: 101.6 lumens/watt  
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B4 - U0 - G2

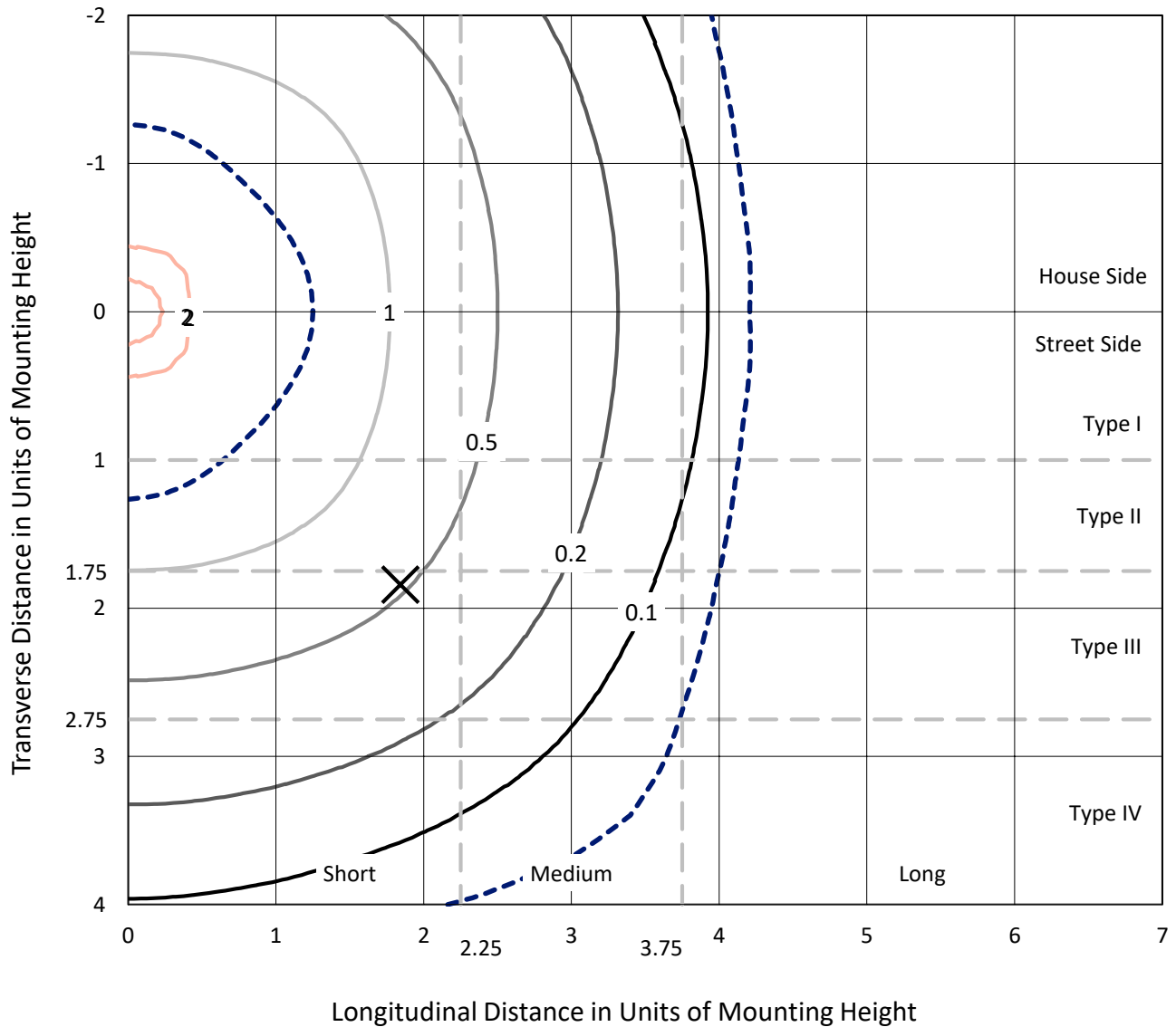
Input Watts (W): 127.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P143958  
 CATALOG NUMBER: LDRL-5WQ-E05-E-8030

### Iso-Footcandle Lines of Horizontal Illumination

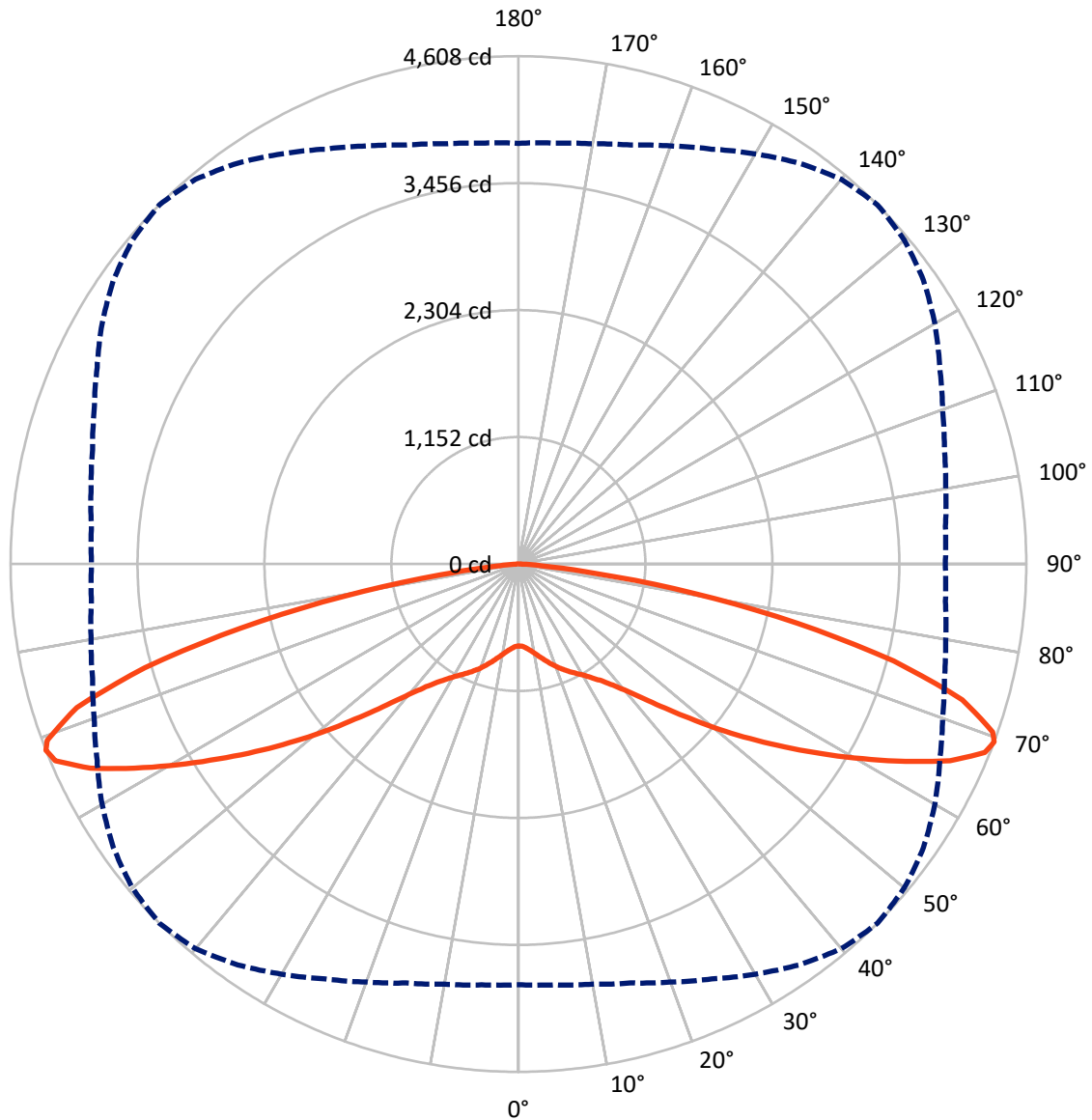
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.1 fc  
 Type V - Short - Semi-Cutoff

REPORT NUMBER: P143958  
CATALOG NUMBER: LDRL-5WQ-E05-E-8030

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P143958

CATALOG NUMBER: LDRL-5WQ-E05-E-8030

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6468.3	0.0	6468.3
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	6468.3	0.0	6468.3
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	12936.5	0.0	12936.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.0	0.6
10°-20°	258.5	2.0
20°-30°	498.3	3.9
30°-40°	816.6	6.3
40°-50°	1419.9	11.0
50°-60°	2522.2	19.5
60°-70°	3915.9	30.3
70°-80°	3119.9	24.1
80°-90°	310.2	2.4
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°	12936.5	100.0
0°-180°	12936.5	100.0



REPORT NUMBER: P143958

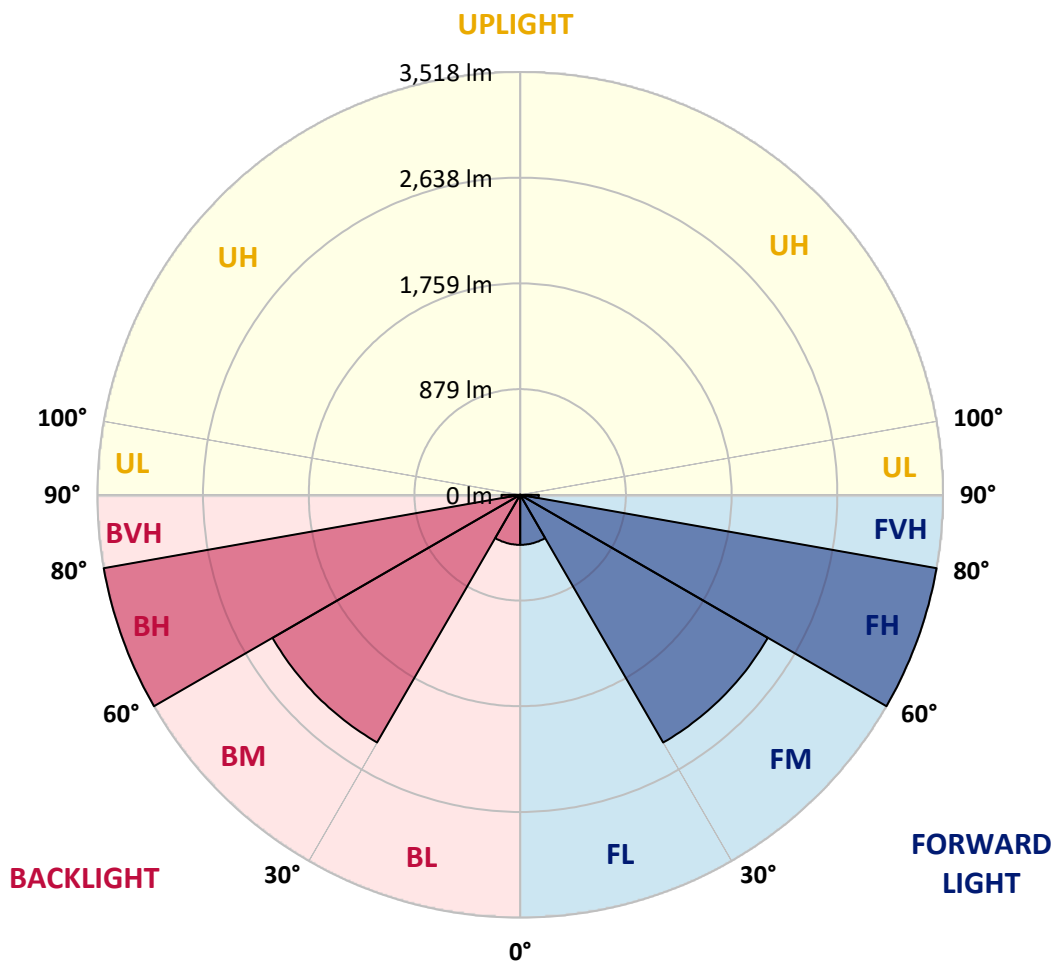
CATALOG NUMBER: LDRL-5WQ-E05-E-8030

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	415.9	3.2			
FM (30°-60°)	2379.3	18.4			
FH (60°-80°)	3517.9	27.2			G2/5000
FVH (80°-90°)	155.1	1.2			G2/225
BL (0°-30°)	415.9	3.2	B1/500		
BM (30°-60°)	2379.3	18.4	B2/2500		
BH (60°-80°)	3517.9	27.2	B4/5000		G2/5000
BVH (80°-90°)	155.1	1.2			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G2**

Type V Short





REPORT NUMBER: P143958

CATALOG NUMBER: LDRL-5WQ-E05-E-8030

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6
2.5°	749.5	749.5	749.5	748.6	748.6	747.8	748.6	747.8	747.8	747.8	747.8
5°	768.9	767.2	767.2	766.3	768.0	768.0	766.3	767.2	766.3	767.2	767.2
7.5°	793.4	793.4	793.4	792.5	794.2	793.4	792.5	793.4	793.4	792.5	792.5
10°	823.7	824.6	823.7	823.7	826.3	825.4	826.3	826.3	827.1	826.3	826.3
12.5°	859.2	859.2	860.0	860.9	861.7	862.6	865.1	864.2	865.9	864.2	864.2
15°	900.5	902.2	900.5	900.5	903.1	904.8	905.6	905.6	907.3	906.4	904.8
17.5°	944.4	945.3	944.4	943.6	946.1	948.6	949.5	949.5	952.0	950.3	950.3
20°	989.2	990.0	988.3	987.5	990.8	990.8	992.5	993.4	995.9	996.8	994.2
22.5°	1030.5	1031.4	1030.5	1029.7	1033.0	1033.0	1035.6	1036.4	1039.8	1039.0	1039.0
25°	1071.0	1071.0	1070.2	1070.2	1073.6	1074.4	1076.9	1078.6	1082.0	1082.0	1082.0
27.5°	1108.2	1109.0	1107.3	1106.5	1113.2	1115.8	1117.4	1120.8	1123.4	1125.0	1124.2
30°	1150.4	1150.4	1149.5	1152.0	1156.3	1159.6	1163.0	1168.1	1173.1	1171.5	1171.5
32.5°	1200.2	1201.8	1201.0	1204.4	1209.4	1214.5	1218.7	1224.6	1227.2	1231.4	1228.0
35°	1266.8	1270.2	1268.5	1271.9	1276.1	1279.5	1288.8	1294.7	1298.9	1301.4	1299.7
37.5°	1350.4	1348.7	1352.1	1352.9	1361.4	1365.6	1376.5	1385.0	1391.7	1394.3	1392.6
40°	1454.2	1451.7	1455.9	1460.1	1471.1	1475.3	1488.0	1500.6	1509.9	1513.3	1511.6
42.5°	1578.3	1581.6	1588.4	1594.3	1609.5	1621.3	1635.7	1654.2	1664.4	1668.6	1662.7
45°	1741.2	1735.2	1747.9	1763.1	1771.5	1797.7	1821.3	1840.7	1857.6	1864.4	1857.6
47.5°	1926.8	1926.0	1941.2	1959.7	1981.7	2006.2	2034.0	2059.3	2088.9	2090.6	2082.1
50°	2131.9	2148.8	2157.2	2175.8	2216.3	2246.7	2282.2	2320.1	2347.1	2355.6	2340.4
52.5°	2379.2	2391.9	2396.9	2428.2	2465.3	2502.4	2552.2	2597.8	2629.0	2632.4	2624.8
55°	2647.6	2657.7	2667.0	2705.0	2745.5	2778.4	2841.7	2886.4	2917.7	2929.5	2924.4
57.5°	2925.3	2934.6	2946.4	2987.7	3029.1	3075.5	3135.4	3187.8	3224.0	3246.0	3240.1
60°	3233.3	3233.3	3260.3	3301.7	3335.5	3390.3	3452.8	3513.5	3553.2	3587.8	3578.5
62.5°	3557.4	3566.7	3592.9	3626.6	3662.1	3712.7	3783.6	3856.2	3917.0	3943.1	3942.3
65°	3803.0	3819.9	3854.5	3893.3	3952.4	4012.3	4101.8	4192.1	4265.5	4303.5	4303.5
67.5°	3874.8	3885.7	3928.8	3987.9	4073.1	4168.5	4290.0	4415.8	4516.2	4566.0	4534.8
69°	3817.4	3833.4	3871.4	3935.5	4036.8	4153.3	4297.6	4440.2	4556.7	4608.2	4571.9
70°	3750.7	3768.4	3806.4	3869.7	3974.4	4098.4	4242.7	4396.3	4521.3	4565.1	4523.8
72.5°	3478.9	3500.9	3527.9	3582.7	3677.3	3793.7	3923.7	4058.8	4178.6	4213.2	4161.7
75°	3015.6	3019.8	3033.3	3073.8	3107.6	3190.3	3300.8	3408.0	3498.3	3518.6	3463.7
77.5°	2134.5	2111.7	2088.9	2123.5	2150.5	2256.8	2376.7	2464.5	2559.0	2587.7	2532.0
80°	936.0	927.5	959.6	1005.2	1124.2	1195.1	1312.4	1438.2	1518.3	1612.0	1511.6
82.5°	184.8	195.0	225.3	278.5	343.5	432.1	508.9	595.9	674.3	709.8	673.5
85°	75.1	81.9	92.8	103.8	111.4	124.9	146.9	182.3	200.9	203.4	193.3
87.5°	31.2	36.3	49.0	58.2	59.1	56.5	58.2	59.9	49.0	39.7	49.8
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: P143958

CATALOG NUMBER: LDRL-5WQ-E05-E-8030

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	743.6	743.6	743.6	743.6	743.6	743.6	743.6	743.6
2.5°	747.8	748.6	747.8	748.6	747.8	747.8	748.6	747.8
5°	766.3	767.2	766.3	765.5	764.7	765.5	765.5	765.5
7.5°	792.5	791.7	790.8	790.8	790.0	789.1	790.8	790.8
10°	824.6	823.7	822.0	822.0	821.2	821.2	821.2	821.2
12.5°	863.4	860.9	860.0	857.5	856.7	855.8	855.8	856.7
15°	903.9	901.4	900.5	896.3	896.3	895.5	895.5	895.5
17.5°	947.0	944.4	941.0	941.0	938.5	936.8	937.7	936.0
20°	990.8	987.5	985.8	984.9	981.6	981.6	981.6	980.7
22.5°	1033.9	1031.4	1028.8	1025.4	1022.1	1021.2	1021.2	1020.4
25°	1077.8	1073.6	1068.5	1065.1	1061.7	1059.2	1059.2	1059.2
27.5°	1121.7	1116.6	1109.0	1104.8	1099.7	1097.2	1097.2	1096.3
30°	1168.1	1162.2	1155.4	1149.5	1142.8	1140.2	1139.4	1137.7
32.5°	1223.8	1217.9	1211.1	1202.7	1195.9	1191.7	1191.7	1189.2
35°	1294.7	1287.9	1282.9	1271.9	1263.5	1256.7	1257.5	1259.2
37.5°	1387.5	1379.1	1374.9	1361.4	1350.4	1343.6	1343.6	1342.8
40°	1505.7	1497.2	1488.0	1475.3	1461.8	1452.5	1450.0	1450.0
42.5°	1655.9	1648.3	1635.7	1617.9	1601.9	1591.8	1583.3	1584.2
45°	1844.1	1834.8	1817.1	1795.2	1775.8	1761.4	1749.6	1749.6
47.5°	2072.8	2053.4	2029.0	2009.5	1976.6	1954.7	1946.2	1944.6
50°	2333.6	2297.3	2267.0	2239.1	2204.5	2181.7	2169.1	2165.7
52.5°	2607.1	2569.1	2531.1	2494.8	2452.6	2429.0	2408.8	2407.1
55°	2904.2	2856.1	2808.0	2772.5	2722.7	2698.2	2678.0	2666.2
57.5°	3207.2	3153.2	3118.5	3067.9	3015.6	2997.9	2978.4	2964.1
60°	3548.1	3489.1	3443.5	3390.3	3356.6	3318.6	3300.0	3289.0
62.5°	3896.7	3841.8	3783.6	3733.0	3685.7	3659.5	3634.2	3621.6
65°	4251.2	4160.9	4091.7	4021.6	3965.9	3918.6	3879.0	3873.9
67.5°	4468.9	4355.0	4239.4	4137.2	4055.4	3988.7	3948.2	3933.8
69°	4486.7	4362.6	4218.3	4095.9	4001.4	3937.2	3889.1	3873.9
70°	4437.7	4312.8	4160.9	4029.2	3931.3	3861.3	3821.6	3796.3
72.5°	4079.9	3970.1	3824.1	3694.1	3605.5	3523.7	3484.0	3473.9
75°	3365.8	3249.4	3115.2	3052.7	2991.1	2939.6	2912.6	2910.1
77.5°	2390.2	2271.2	2169.1	2087.2	2020.5	1987.6	1995.2	1967.3
80°	1368.1	1212.8	1089.6	1017.0	918.3	859.2	792.5	840.6
82.5°	588.3	475.2	362.1	294.6	224.5	178.1	146.9	136.7
85°	164.6	134.2	112.3	103.0	92.8	82.7	70.1	65.0
87.5°	55.7	53.2	47.3	47.3	43.0	36.3	25.3	22.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)