

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: P143660

Luminaire Tested: **LDRL-5MQ-E05-E**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P143660  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33697)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: LDRL-5MQ-E05-E  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM  
Light Source: (105) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15538.4 lumens  
Efficiency: N/A  
Efficacy: 122.1 lumens/watt  
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B4 - U0 - G2

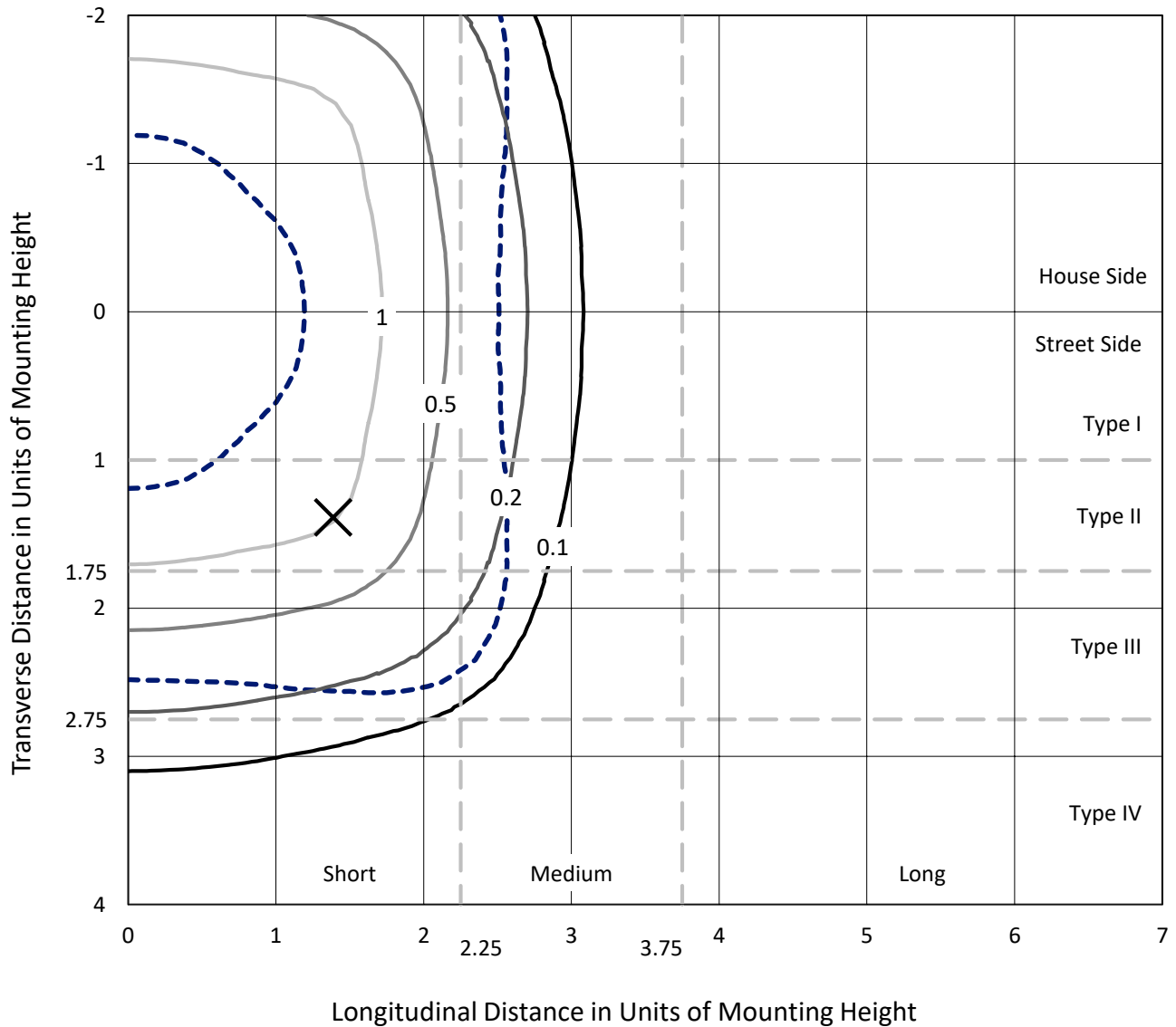
Input Watts (W): 127.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

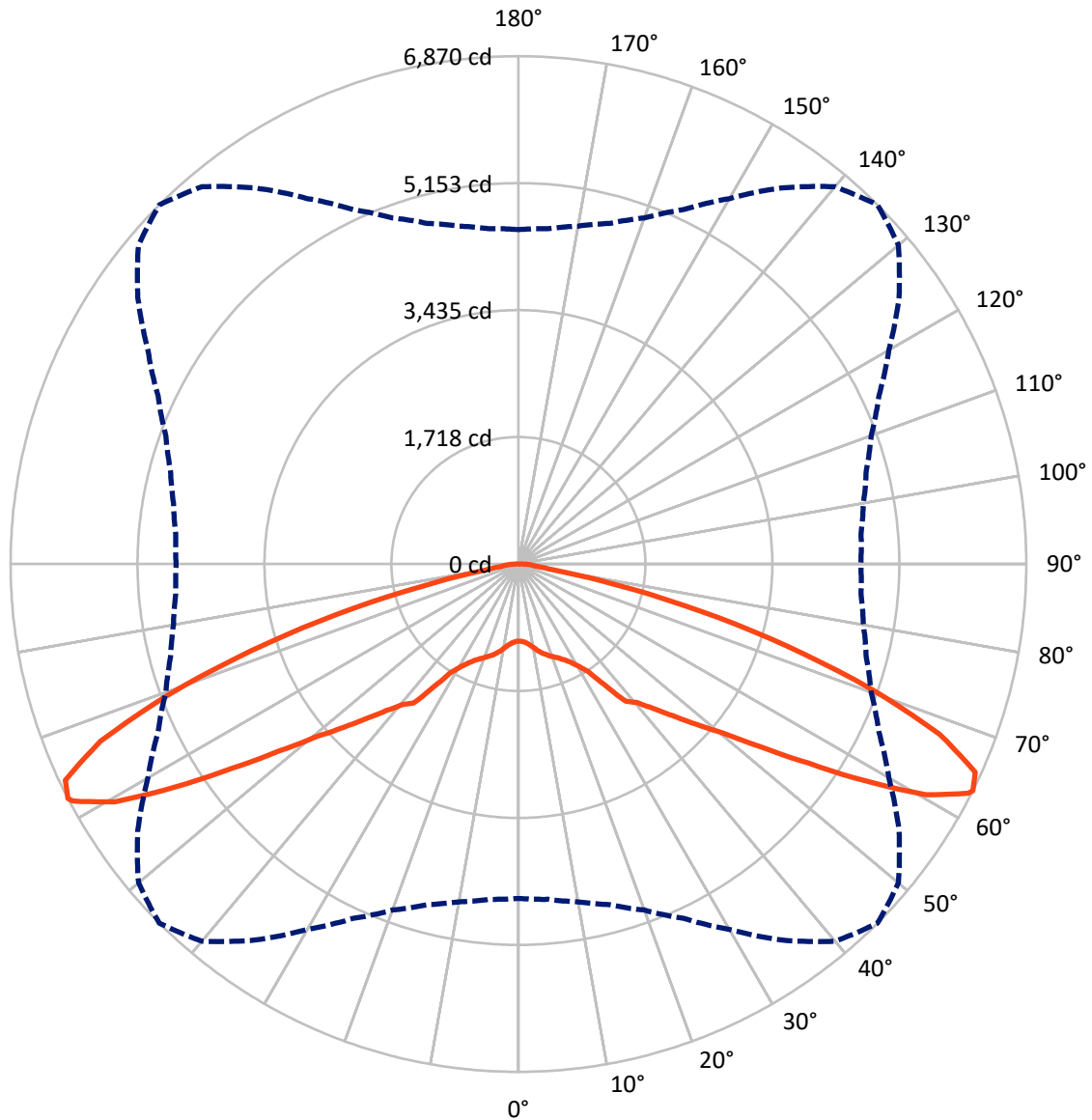
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 63-Deg Vertical

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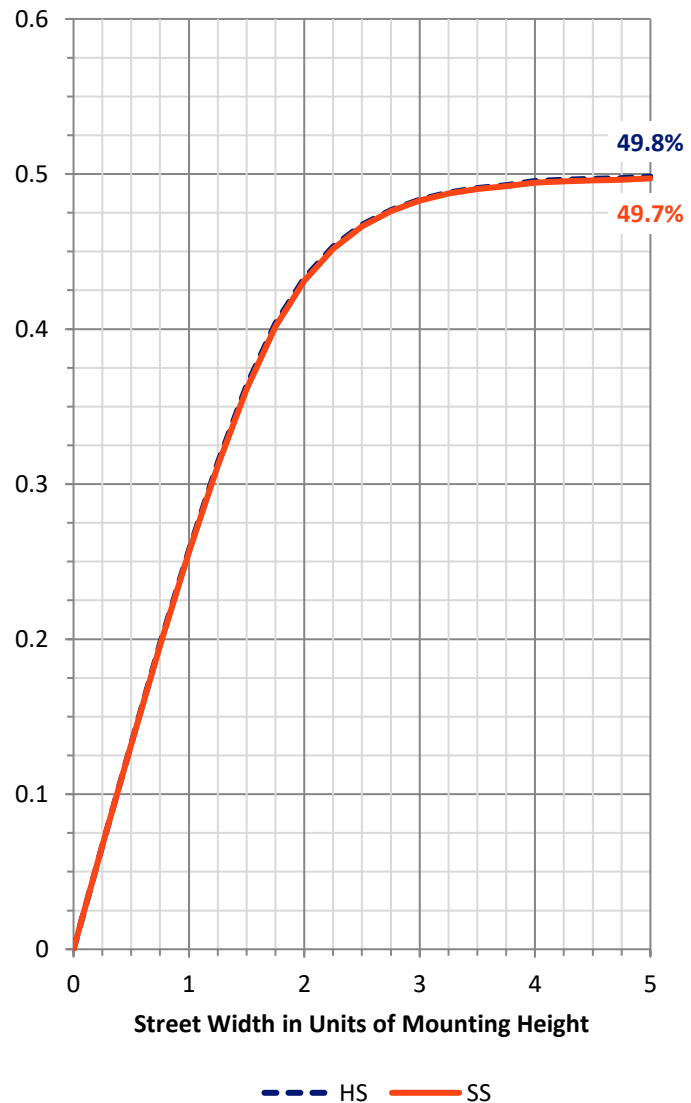
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7769.2	0.0	7769.2
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	7769.2	0.0	7769.2
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	15538.4	0.0	15538.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.0	0.7
10°-20°	358.7	2.3
20°-30°	685.2	4.4
30°-40°	1305.3	8.4
40°-50°	2247.7	14.5
50°-60°	4016.6	25.8
60°-70°	4892.3	31.5
70°-80°	1742.7	11.2
80°-90°	184.8	1.2
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°	15538.4	100.0
0°-180°	15538.4	100.0



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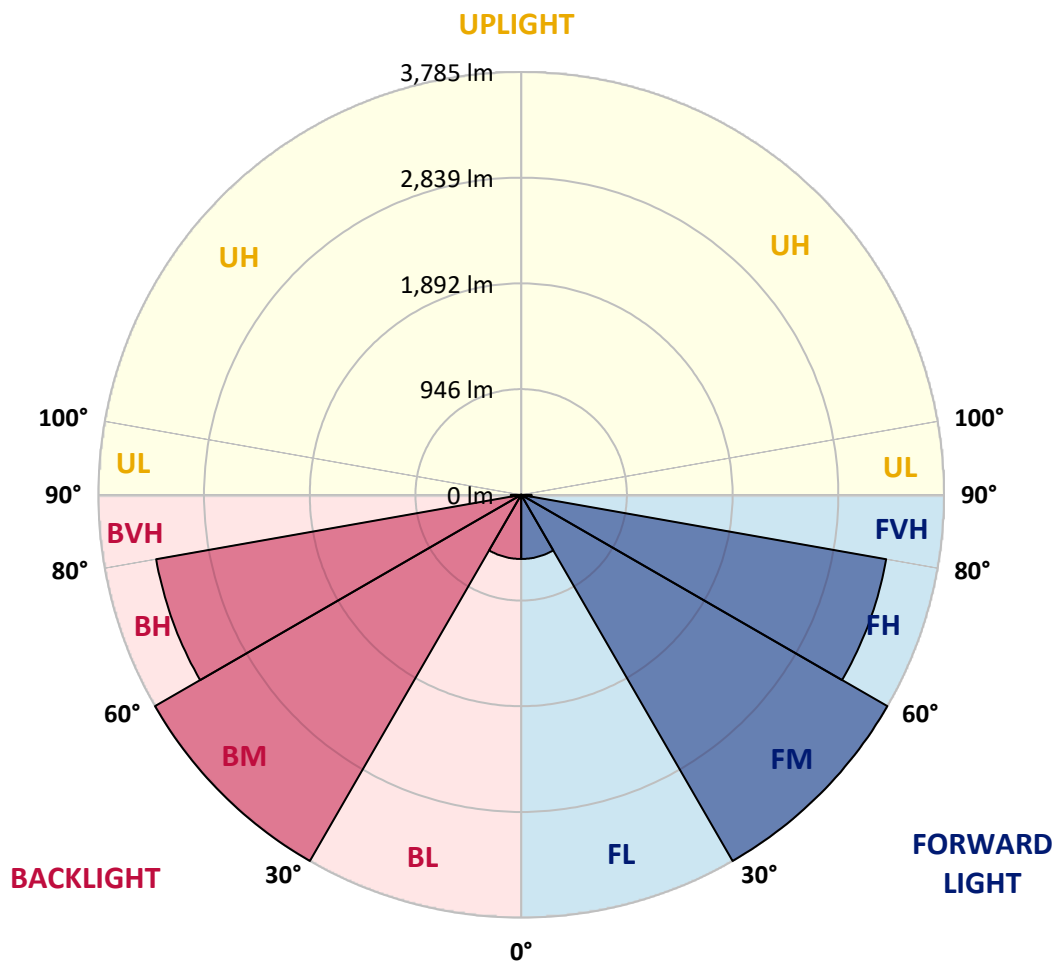
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	574.5	3.7			
FM	(30°-60°)	3784.8	24.4			
FH	(60°-80°)	3317.5	21.4			G2/5000
FVH	(80°-90°)	92.4	0.6			G1/100
BL	(0°-30°)	574.5	3.7	B2/1000		
BM	(30°-60°)	3784.8	24.4	B3/5000		
BH	(60°-80°)	3317.5	21.4	B4/5000		G2/5000
BVH	(80°-90°)	92.4	0.6			G1/100
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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1043	1043	1043	1043	1043	1043	1043	1043	1043	1043	1043
2.5°	1051	1050	1051	1049	1049	1048	1048	1048	1046	1048	1046
5°	1073	1072	1073	1071	1071	1069	1069	1069	1067	1069	1068
7.5°	1111	1113	1111	1109	1109	1107	1106	1106	1105	1104	1106
10°	1164	1166	1163	1161	1160	1159	1157	1156	1156	1152	1153
12.5°	1220	1220	1217	1216	1216	1214	1210	1209	1209	1207	1205
15°	1270	1270	1268	1264	1265	1262	1259	1257	1257	1255	1253
17.5°	1316	1316	1313	1309	1307	1306	1302	1300	1300	1298	1296
20°	1362	1364	1359	1355	1351	1347	1343	1341	1338	1339	1338
22.5°	1417	1418	1410	1405	1397	1392	1386	1384	1380	1380	1382
25°	1487	1486	1477	1468	1459	1449	1440	1438	1434	1433	1434
27.5°	1579	1578	1567	1555	1543	1528	1517	1511	1508	1504	1506
30°	1692	1694	1681	1667	1652	1634	1620	1612	1606	1602	1604
32.5°	1922	1920	1900	1870	1838	1796	1762	1748	1737	1733	1736
35°	2153	2151	2143	2134	2126	2099	2074	2045	2021	2006	2010
37.5°	2262	2262	2256	2254	2254	2270	2290	2326	2354	2356	2347
40°	2432	2432	2422	2417	2414	2419	2432	2445	2459	2462	2452
42.5°	2632	2623	2616	2606	2605	2610	2624	2640	2654	2666	2645
45°	2848	2840	2833	2827	2831	2844	2863	2891	2911	2929	2912
47.5°	3089	3072	3079	3073	3083	3109	3143	3185	3206	3238	3211
50°	3389	3393	3389	3389	3401	3435	3485	3542	3578	3596	3580
52.5°	3835	3823	3796	3804	3820	3874	3939	4019	4065	4108	4058
55°	4323	4325	4321	4332	4363	4418	4500	4621	4679	4754	4694
57.5°	4727	4741	4765	4798	4865	4957	5118	5303	5457	5538	5444
60°	4858	4872	4930	5022	5148	5336	5597	5914	6191	6335	6212
62.5°	4606	4632	4718	4845	5053	5347	5735	6204	6631	6828	6679
63°	4524	4553	4641	4770	4982	5289	5708	6210	6662	6870	6709
65°	4160	4179	4272	4419	4655	4975	5441	6035	6550	6791	6620
67.5°	3587	3612	3697	3824	4053	4392	4850	5442	5949	6142	5996
70°	2877	2905	2975	3093	3273	3587	3979	4532	4913	5064	4908
72.5°	2022	2034	2085	2209	2344	2594	2905	3335	3701	3800	3650
75°	856	857	924	1003	1172	1421	1692	2062	2391	2545	2355
77.5°	274	277	296	325	381	492	692	895	1197	1343	1165
80°	229	233	241	247	251	257	280	312	393	457	369
82.5°	197	204	222	229	233	235	238	237	232	230	231
85°	150	167	187	203	205	206	212	214	198	182	198
87.5°	65	84	129	143	140	130	139	147	134	98	131
90°	0	0	0	0	0	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1043	1043	1043	1043	1043	1043	1043	1043
2.5°	1047	1049	1049	1049	1049	1050	1051	1050
5°	1069	1071	1070	1071	1071	1072	1073	1072
7.5°	1107	1107	1107	1109	1109	1111	1111	1111
10°	1154	1153	1153	1155	1157	1158	1160	1159
12.5°	1205	1203	1204	1206	1208	1209	1211	1210
15°	1251	1250	1250	1253	1254	1255	1259	1259
17.5°	1295	1295	1295	1299	1300	1304	1307	1307
20°	1339	1339	1339	1343	1346	1352	1358	1357
22.5°	1384	1385	1387	1391	1398	1407	1412	1412
25°	1440	1444	1448	1454	1464	1476	1484	1487
27.5°	1512	1521	1531	1540	1551	1566	1577	1579
30°	1610	1623	1639	1651	1665	1682	1695	1702
32.5°	1749	1781	1802	1845	1871	1900	1924	1934
35°	2035	2067	2095	2124	2130	2140	2153	2156
37.5°	2318	2292	2267	2266	2259	2261	2265	2270
40°	2441	2433	2420	2425	2426	2426	2434	2435
42.5°	2639	2620	2605	2617	2619	2621	2629	2638
45°	2891	2862	2843	2836	2843	2841	2852	2854
47.5°	3179	3141	3098	3084	3080	3071	3090	3088
50°	3532	3471	3419	3399	3389	3384	3389	3389
52.5°	3979	3918	3847	3824	3816	3827	3811	3828
55°	4594	4495	4398	4367	4362	4357	4359	4366
57.5°	5286	5110	4980	4904	4855	4831	4805	4801
60°	5954	5634	5387	5219	5100	5010	4964	4948
62.5°	6276	5808	5424	5138	4961	4814	4733	4712
63°	6285	5786	5379	5077	4871	4739	4653	4631
65°	6118	5550	5073	4741	4523	4385	4279	4256
67.5°	5510	4959	4471	4134	3898	3787	3670	3667
70°	4522	4030	3619	3309	3112	3002	2883	2886
72.5°	3306	2869	2586	2344	2136	2032	1920	1931
75°	1990	1600	1345	1135	921	793	707	658
77.5°	851	582	418	332	280	259	249	246
80°	296	262	247	243	240	236	229	222
82.5°	240	240	232	231	222	215	197	188
85°	213	209	202	199	197	182	159	147
87.5°	141	131	125	128	124	111	68	54
90°	0	0	0	0	0	0	0	0

(END OF REPORT)