

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: McGRAW-EDISON

Report Number: 768840

Luminaire Tested: **GSM-AM-400-HPS-MT-AS-FG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 768840
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GSM-AM-400-HPS-MT-AS-FG
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-VERTICAL LAMP-SQUARE DISTRIBUTION
Light Source: 400 WATT HPS CLEAR E-18
Ballast/Driver: -

Summary

Lumens per Lamp: 50000 (1 lamp)
Luminaire Lumens: 36304.8 lumens
Efficiency: 72.6%
Efficacy: 90.8 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G3

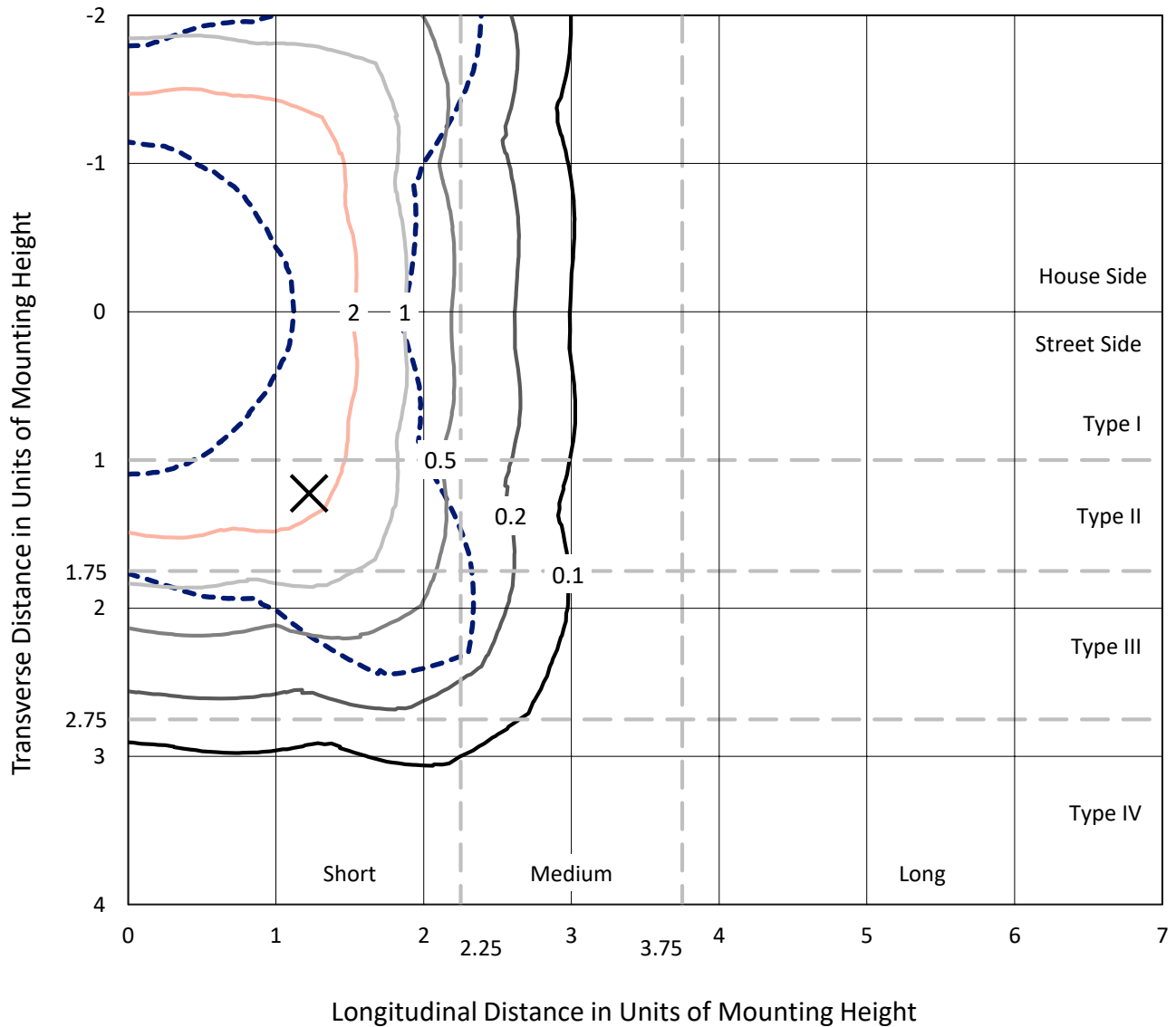
Input Watts (W): 400
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

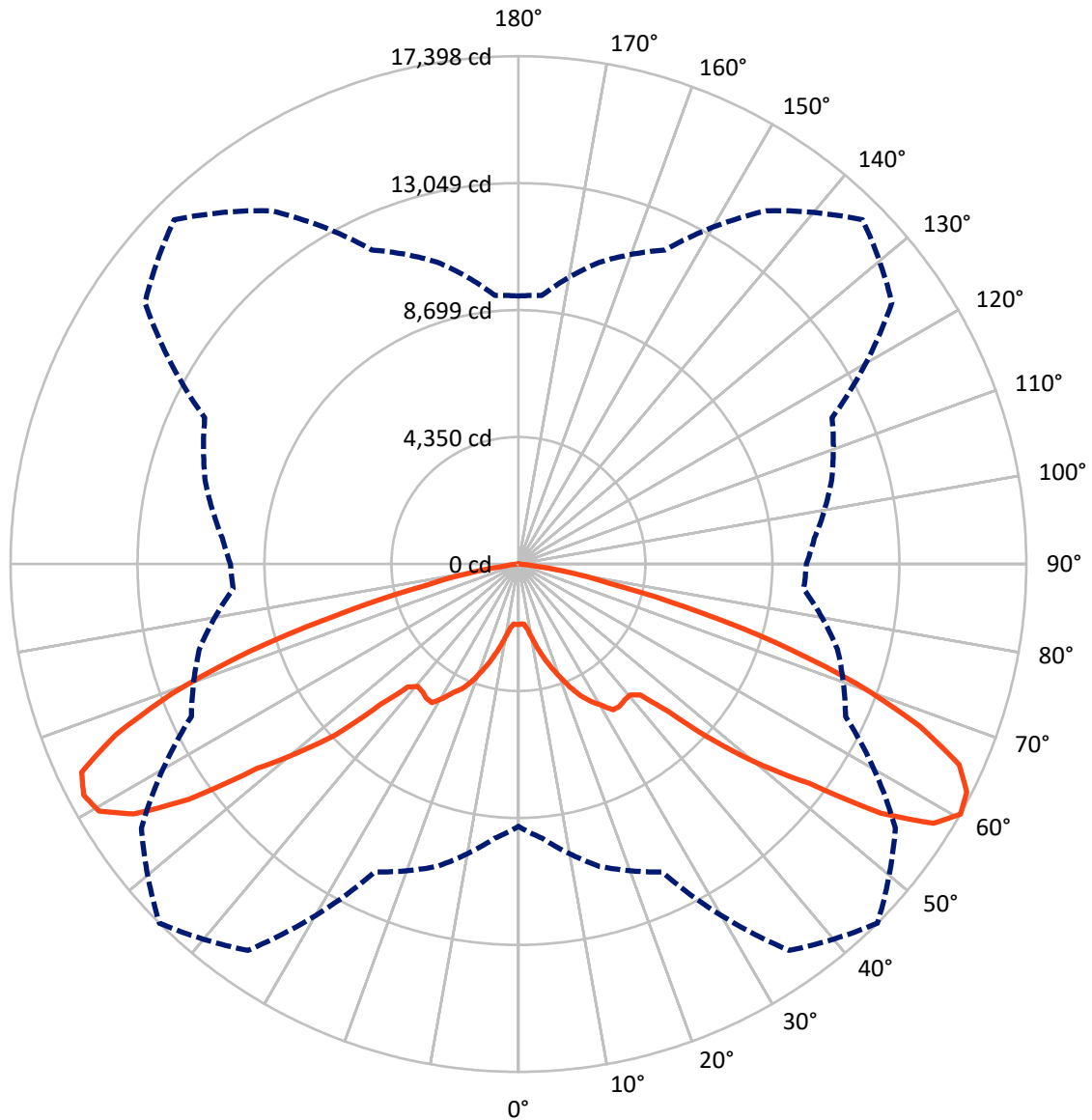
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.1 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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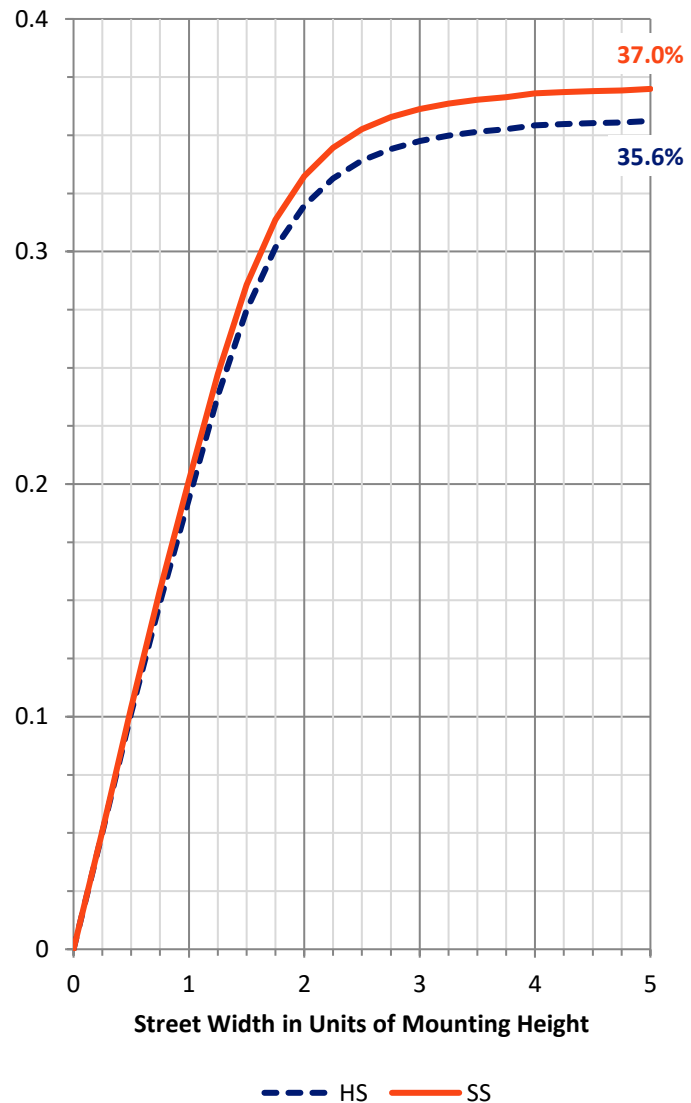
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17803.7	0.0	17803.7
	% Lamp	35.6	0.0	35.6
Street Side	Lumens	18501.1	0.0	18501.1
	% Lamp	37.0	0.0	37.0
Total	Lumens	36304.8	0.0	36304.8
	% Lamp	72.6	0.0	72.6

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	212.4	0.6	0.4
10°-20°	947.6	2.6	1.9
20°-30°	2189.7	6.0	4.4
30°-40°	3412.6	9.4	6.8
40°-50°	5728.6	15.8	11.5
50°-60°	10785.0	29.7	21.6
60°-70°	9611.7	26.5	19.2
70°-80°	3222.3	8.9	6.4
80°-90°	194.9	0.5	0.4
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	36304.8	100.0	72.6
0°-180°	36304.8	100.0	72.6



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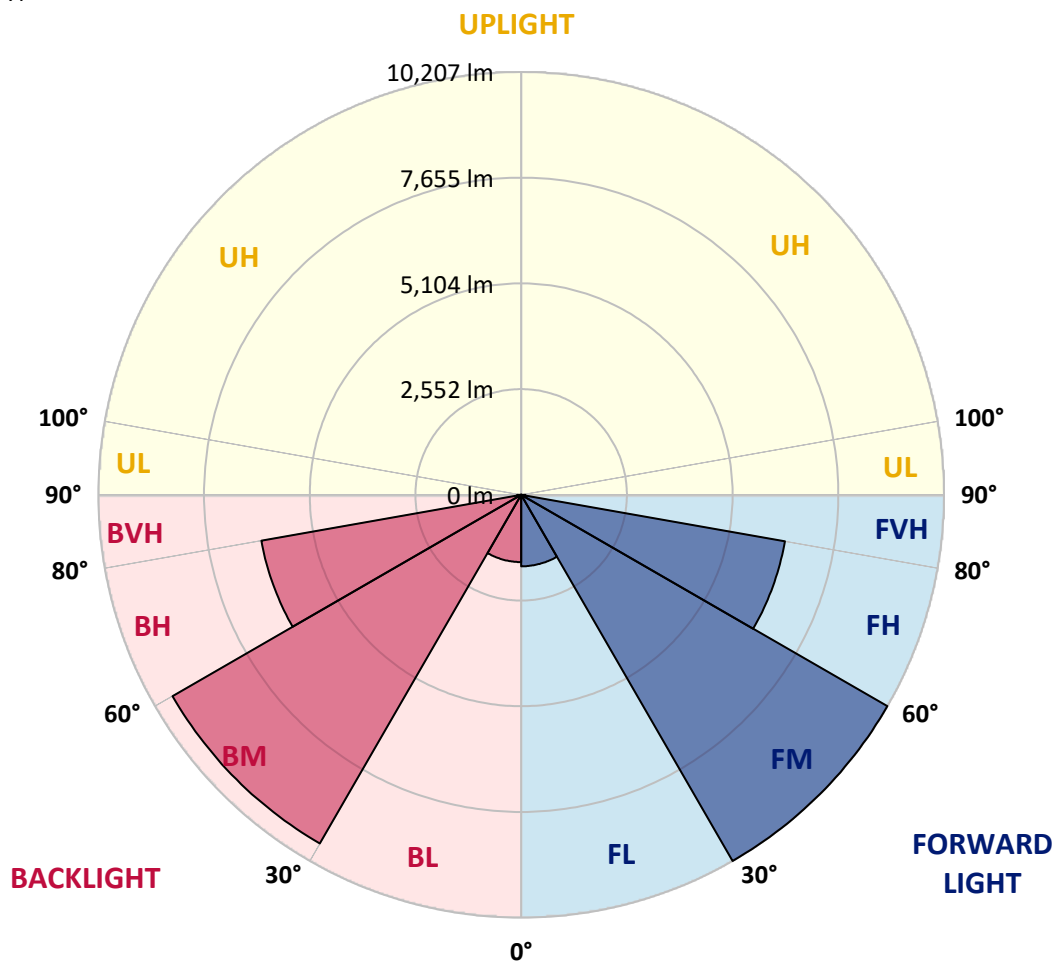
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1726.0	3.5			
FM (30°-60°)	10207.2	20.4			
FH (60°-80°)	6466.2	12.9			G3/7500
FVH (80°-90°)	101.6	0.2			G2/225
BL (0°-30°)	1623.7	3.2	B3/2500		
BM (30°-60°)	9718.9	19.4	B5		
BH (60°-80°)	6367.7	12.7	B5		G3/7500
BVH (80°-90°)	93.2	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	13695.2	27.4			

BUG Rating: B5-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2071	2071	2071	2071	2071	2071	2071	2071	2071	2071	2071
2.5°	2050	2045	2055	2055	2050	2055	2066	2071	2066	2066	2071
5°	2061	2055	2061	2066	2076	2076	2076	2081	2086	2086	2086
7.5°	2224	2224	2219	2224	2239	2249	2260	2270	2280	2275	2275
10°	2581	2576	2581	2581	2571	2581	2586	2581	2581	2586	2586
12.5°	2938	2938	2953	2963	2963	2979	2984	2974	2974	2979	2974
15°	3336	3326	3341	3346	3361	3371	3361	3361	3371	3382	3366
17.5°	3703	3688	3698	3723	3749	3769	3774	3785	3795	3795	3790
20°	4060	4055	4070	4106	4121	4162	4167	4172	4182	4188	4182
22.5°	4468	4468	4483	4534	4580	4606	4596	4590	4590	4590	4590
25°	4794	4794	4815	4886	4958	5014	4973	4907	4896	4876	4866
27.5°	5080	5070	5100	5187	5289	5340	5269	5162	5111	5065	5044
30°	5243	5284	5335	5432	5605	5616	5509	5366	5294	5187	5167
32.5°	5366	5386	5529	5636	5881	5957	5748	5570	5427	5218	5192
35°	5590	5575	5651	5779	5922	5978	5789	5656	5458	5310	5279
37.5°	5753	5728	5733	5764	5896	5906	5769	5646	5534	5452	5396
40°	5937	5896	5886	5850	5896	5896	5845	5753	5697	5590	5539
42.5°	6172	6131	6136	6064	6115	6131	6156	6166	6075	5922	5850
45°	7039	7018	7028	6911	7069	7197	7253	7248	7090	6835	6789
47.5°	8803	8707	8722	8620	8967	9099	9176	8946	8589	8431	8355
50°	9844	9885	9971	10007	10731	10864	10823	10374	9696	9640	9482
52.5°	10323	10584	10747	10956	12211	12486	12328	11410	10757	10451	10252
55°	10609	11073	11874	12180	14516	15072	14644	12904	12211	11236	11053
57.5°	10140	10716	11848	12399	15837	16760	15745	13271	12440	11068	10971
60°	8987	9436	10721	11644	16158	17398	15766	12364	11318	9808	9864
62.5°	7416	7819	9217	10252	15613	17235	14822	10691	9722	8258	8202
65°	5815	6279	7564	8605	14593	16597	13450	8834	7921	6575	6493
67.5°	4376	4677	5738	6738	12721	14827	11410	6728	6075	4861	4784
70°	2958	3152	4075	4937	10191	12313	9084	4912	4473	3509	3458
72.5°	2061	2132	2810	3407	7717	9227	6707	3433	3060	2418	2382
75°	1143	1163	1510	2071	5177	5957	4320	2117	1581	1229	1194
77.5°	520	576	622	1158	2912	3188	2367	1183	658	490	428
80°	275	337	413	831	1250	1846	1000	791	444	296	270
82.5°	133	168	209	352	311	444	275	372	204	138	138
85°	41	56	61	66	82	107	87	71	56	46	41
87.5°	0	5	0	15	10	10	5	5	5	0	5
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2071	2071	2071	2071	2071	2071	2071	2071	2071	2071
2.5°	2066	2071	2071	2066	2071	2061	2071	2061	2055	2050
5°	2086	2076	2076	2061	2061	2055	2055	2045	2050	2050
7.5°	2275	2254	2239	2219	2193	2173	2147	2132	2117	2112
10°	2581	2560	2530	2499	2474	2438	2402	2382	2382	2387
12.5°	2968	2938	2887	2851	2826	2790	2719	2662	2642	2642
15°	3356	3326	3275	3239	3203	3152	3050	2948	2917	2917
17.5°	3779	3734	3677	3632	3591	3535	3412	3275	3218	3234
20°	4167	4121	4060	4014	3963	3917	3749	3570	3499	3519
22.5°	4575	4514	4473	4437	4381	4325	4157	3938	3841	3866
25°	4851	4794	4794	4779	4703	4636	4473	4198	4085	4131
27.5°	5044	4973	5024	5049	4947	4896	4718	4402	4295	4346
30°	5162	5146	5202	5289	5294	5136	4922	4580	4468	4499
32.5°	5197	5269	5356	5503	5595	5305	5080	4713	4565	4601
35°	5274	5330	5417	5458	5575	5279	5172	4794	4677	4743
37.5°	5391	5396	5391	5422	5468	5259	5131	4840	4800	4845
40°	5529	5544	5493	5468	5432	5356	5279	5039	5019	5049
42.5°	5866	5917	5896	5779	5667	5687	5682	5534	5626	5590
45°	6799	6906	7090	6962	6753	6824	6901	6595	6687	6620
47.5°	8426	8339	8860	8890	8589	8559	8686	8089	8258	8191
50°	9574	9426	10237	10507	9946	9987	9966	9206	9278	9181
52.5°	10441	10415	11139	11879	11384	11298	10737	9936	9859	9722
55°	11410	11864	12415	14006	13878	13333	11854	11063	10252	10109
57.5°	11364	12185	12685	15281	15715	14572	12425	11522	10232	10099
60°	10181	11109	11854	15618	16674	14771	11869	10701	9237	9181
62.5°	8548	9395	10374	14944	16867	14047	10538	9278	7809	7712
65°	6855	7717	8543	13817	16577	12828	8803	7620	6172	6080
67.5°	5090	5901	6544	11838	14995	10844	6804	5988	4682	4631
70°	3611	4295	4754	9375	12659	8650	4912	4458	3366	3407
72.5°	2479	3009	3356	7074	9706	6610	3417	3213	2244	2316
75°	1229	1596	1877	4555	6141	4335	1862	1902	1188	1214
77.5°	546	699	903	2509	3269	2515	852	903	515	449
80°	347	444	638	989	1729	1158	561	546	332	306
82.5°	148	204	291	265	403	316	265	224	179	194
85°	41	46	51	66	82	66	56	46	41	51
87.5°	0	0	5	10	10	5	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)