

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: 768845

Luminaire Tested: **GSM-AM-400-HPS-MT-3V-FG**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: 768845  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GSM-AM-400-HPS-MT-3V-FG  
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-VERTICAL LAMP-TYPE 3 DISTRIBUTION  
Light Source: 400 WATT HPS CLEAR E-18  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 50000 (1 lamp)  
Luminaire Lumens: 35087.3 lumens  
Efficiency: 70.2%  
Efficacy: 87.7 lumens/watt  
Luminous Opening: Point Source (0' x 0' x 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B5 - U0 - G4

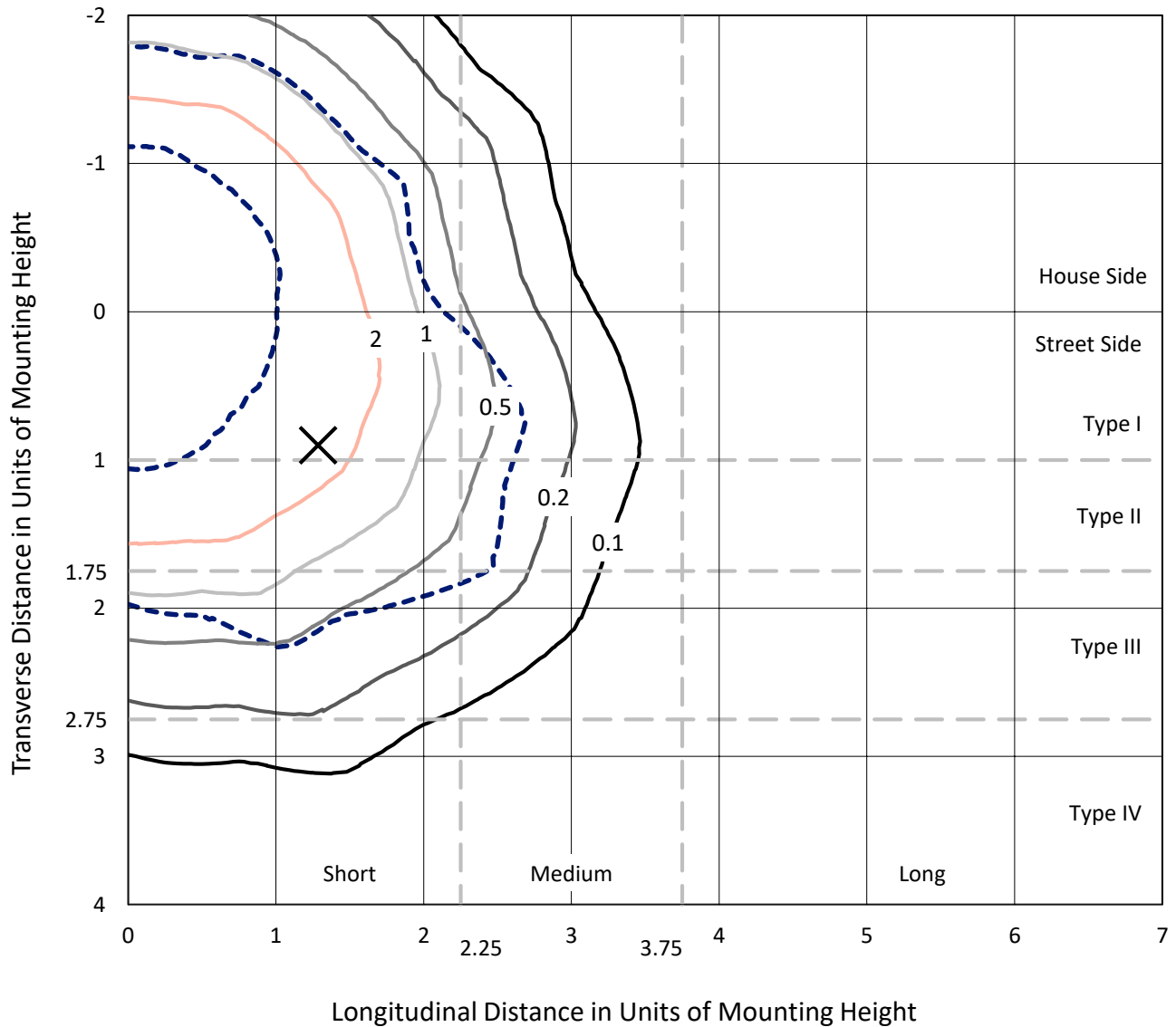
Input Watts (W): 400  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

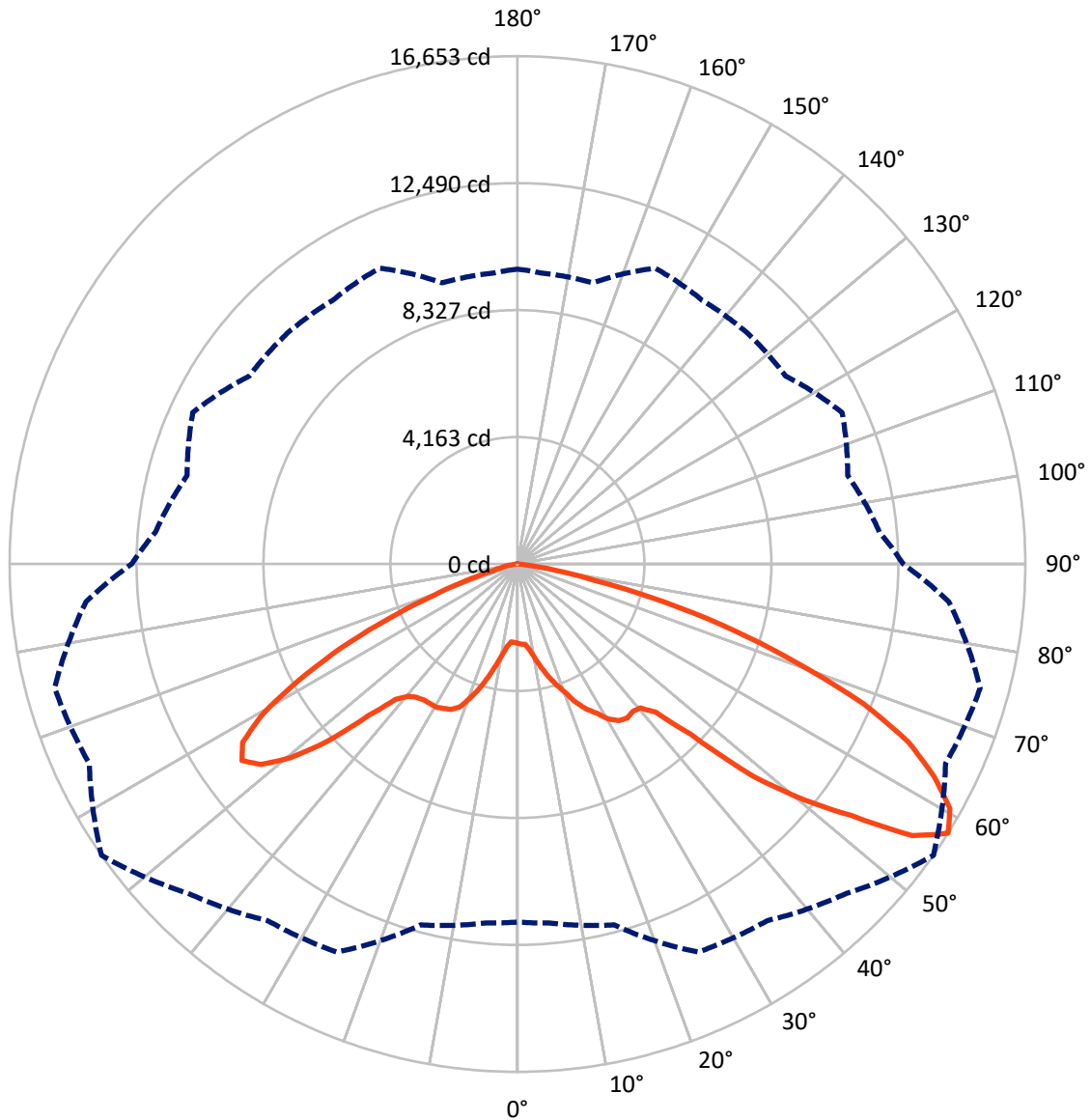
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.4 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

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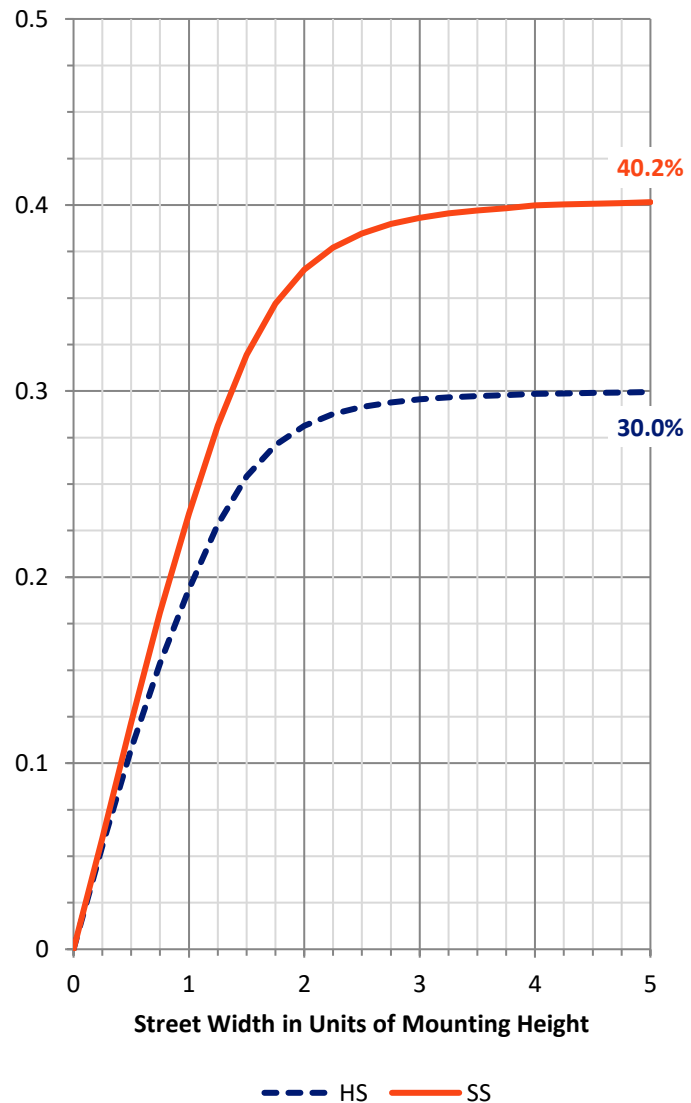
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	15015.5	0.0	15015.5
	% Lamp	30.0	0.0	30.0
<b>Street Side</b>	Lumens	20071.8	0.0	20071.8
	% Lamp	40.1	0.0	40.1
<b>Total</b>	Lumens	35087.3	0.0	35087.3
	% Lamp	70.2	0.0	70.2

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	263.2	0.8	0.5
10°-20°	1094.3	3.1	2.2
20°-30°	2371.2	6.8	4.7
30°-40°	3556.8	10.1	7.1
40°-50°	5965.6	17.0	11.9
50°-60°	10618.5	30.3	21.2
60°-70°	8482.7	24.2	17.0
70°-80°	2566.6	7.3	5.1
80°-90°	168.4	0.5	0.3
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°	35087.3	100.0	70.2
0°-180°	35087.3	100.0	70.2



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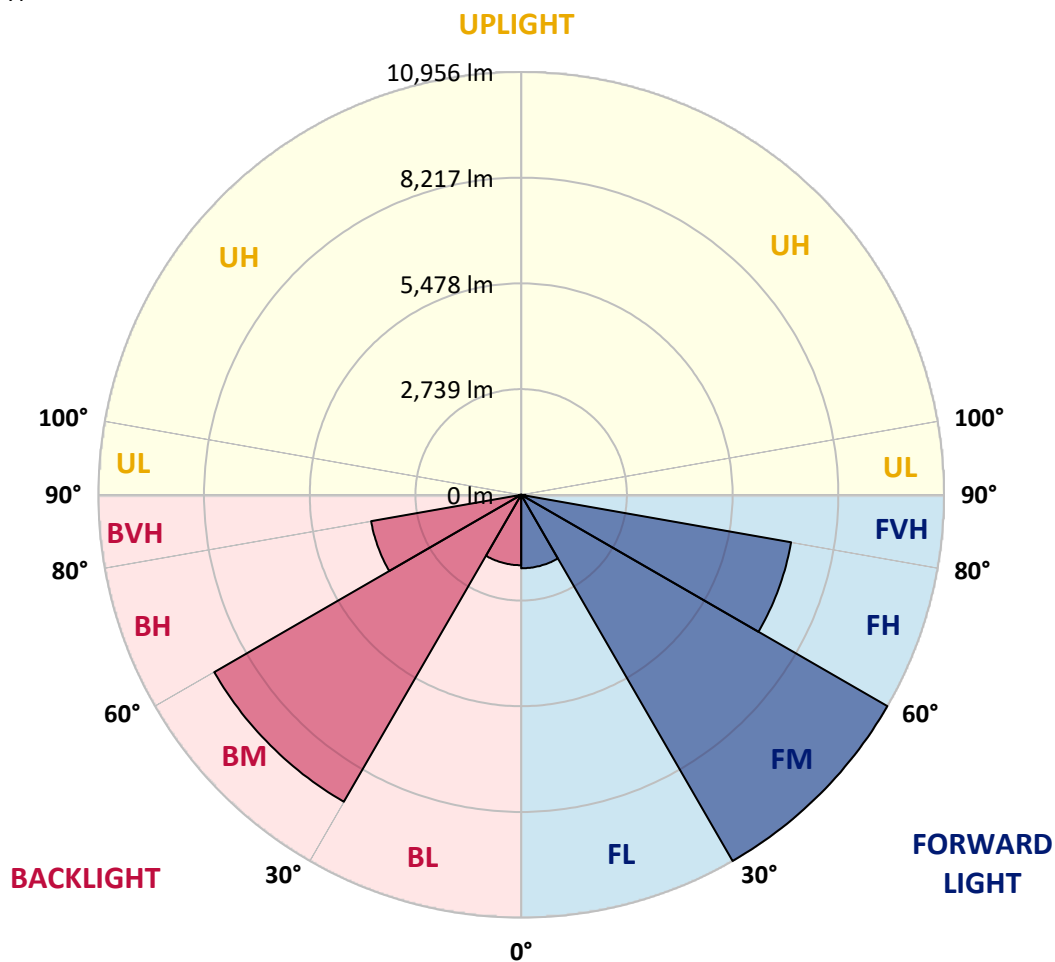
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1904.4	3.8			
FM	(30°-60°)	10956.4	21.9			
FH	(60°-80°)	7101.7	14.2			G3/7500
FVH	(80°-90°)	109.3	0.2			G2/225
BL	(0°-30°)	1824.4	3.6	B3/2500		
BM	(30°-60°)	9184.5	18.4	B5		
BH	(60°-80°)	3947.5	7.9	B4/5000		G4/5000
BVH	(80°-90°)	59.1	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		14912.7	29.8			

**BUG Rating: B5-U0-G4**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2601	2601	2601	2601	2601	2601	2601	2601	2601	2601	2601
2.5°	2642	2627	2632	2632	2632	2637	2632	2622	2611	2601	2601
5°	2683	2673	2673	2673	2668	2657	2647	2642	2622	2606	2601
7.5°	2846	2836	2841	2846	2841	2836	2831	2815	2810	2790	2780
10°	3213	3203	3203	3188	3162	3147	3127	3101	3086	3076	3091
12.5°	3560	3550	3550	3535	3514	3504	3479	3458	3448	3458	3468
15°	3938	3912	3907	3897	3856	3846	3830	3805	3825	3851	3856
17.5°	4244	4223	4223	4208	4182	4177	4172	4167	4208	4244	4259
20°	4539	4519	4509	4499	4494	4504	4504	4529	4575	4606	4641
22.5°	4907	4886	4871	4876	4896	4927	4937	4953	4988	5034	5049
25°	5233	5202	5182	5197	5208	5269	5269	5248	5299	5305	5299
27.5°	5488	5473	5478	5493	5503	5544	5544	5539	5575	5493	5463
30°	5713	5687	5702	5764	5774	5804	5901	5871	5825	5697	5631
32.5°	5917	5881	5911	5973	5998	6019	6121	6054	5947	5774	5667
35°	6080	6044	6059	6095	6121	6151	6202	6110	5932	5753	5662
37.5°	6141	6090	6044	6044	6090	6100	6136	6008	5876	5769	5702
40°	6263	6202	6131	6126	6166	6233	6207	6064	5993	5906	5840
42.5°	6447	6396	6345	6365	6580	6911	6636	6396	6391	6365	6371
45°	7059	7023	7039	7238	7620	8130	7962	7651	7804	7865	8084
47.5°	8936	8696	8707	8824	9446	10155	10395	9839	9880	9941	10145
50°	10487	10028	10033	10349	10884	11706	12134	11451	11374	11440	11078
52.5°	10956	10584	10803	11599	11848	12823	13705	12884	12986	12807	11905
55°	11660	11425	11910	13159	13516	14424	15725	14740	14919	14276	12797
57.5°	11741	11813	12251	14037	14276	15271	16653	15490	15710	14200	12649
60°	10405	10839	11272	13649	13547	14812	16296	15006	15266	12981	11481
62.5°	8610	9089	9696	12491	12134	13526	15322	14082	14307	11440	9864
65°	6926	7401	8033	10997	10645	12124	14093	12751	12945	9798	8105
67.5°	4958	5463	6095	8880	8717	10272	12251	10859	10844	7901	6330
70°	3468	3861	4427	6789	6789	8130	9732	8492	8401	5947	4662
72.5°	2377	2693	3081	4983	4907	6054	7396	6294	6320	4295	3264
75°	1489	1668	1846	3331	3106	4060	4968	4218	4177	2601	1765
77.5°	541	561	704	1673	1423	2178	2611	2606	2326	1540	898
80°	204	219	321	658	760	1260	1367	1423	1290	989	587
82.5°	102	102	148	163	214	316	474	423	255	418	265
85°	41	36	41	61	56	71	122	122	51	66	66
87.5°	0	5	0	10	5	10	5	10	5	5	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°	2601	2601	2601	2601	2601	2601	2601	2601	2601	2601
2.5°	2586	2586	2581	2576	2566	2566	2555	2550	2545	2550
5°	2591	2576	2566	2560	2545	2530	2525	2515	2515	2520
7.5°	2775	2764	2734	2719	2678	2652	2622	2596	2576	2571
10°	3091	3091	3055	3019	2989	2943	2887	2851	2856	2856
12.5°	3468	3468	3433	3392	3346	3310	3224	3132	3101	3111
15°	3871	3887	3871	3825	3769	3718	3611	3489	3433	3438
17.5°	4279	4300	4295	4269	4198	4126	3989	3851	3779	3785
20°	4657	4692	4682	4662	4596	4509	4351	4147	4065	4080
22.5°	5070	5085	5065	5060	4973	4902	4723	4453	4341	4356
25°	5305	5299	5264	5238	5151	5070	4917	4611	4488	4499
27.5°	5437	5417	5371	5315	5233	5162	5075	4754	4626	4631
30°	5570	5498	5452	5396	5335	5248	5182	4866	4733	4733
32.5°	5575	5488	5468	5401	5376	5294	5289	4902	4794	4784
35°	5585	5503	5473	5412	5356	5279	5264	4937	4881	4866
37.5°	5651	5560	5529	5478	5396	5289	5248	4983	4932	4907
40°	5789	5682	5646	5611	5519	5422	5335	5049	5044	4978
42.5°	6467	6100	5962	5968	5855	5845	5728	5442	5320	5294
45°	8135	7258	6942	6952	6926	6952	6911	6503	6401	6304
47.5°	9512	8620	8385	8543	8472	8503	8411	7799	7880	7977
50°	10364	9716	9604	9778	9722	9650	9630	8839	9007	9069
52.5°	11226	10568	10604	10670	10584	10436	10482	9528	9472	9548
55°	12124	11384	11644	11099	11032	10941	11124	9834	9808	9834
57.5°	11920	11211	11746	10737	10686	10558	10701	9543	9569	9671
60°	10660	10104	10752	9696	9558	9563	9482	8457	8635	8620
62.5°	8926	8569	9268	8125	7977	8023	8018	7202	7375	7181
65°	7090	6881	7533	6406	6320	6422	6345	5855	5932	5733
67.5°	5366	5223	5728	4580	4585	4703	4590	4427	4478	4366
70°	3815	3565	4024	2933	2979	3055	2994	3147	3239	3183
72.5°	2535	2280	2617	1765	1785	1867	1857	1969	2020	1999
75°	1229	1097	1194	852	852	893	908	944	949	938
77.5°	581	581	602	561	566	571	571	556	551	551
80°	377	362	408	393	398	398	398	377	367	367
82.5°	209	189	173	184	179	189	184	173	158	163
85°	56	51	51	51	56	51	51	46	41	51
87.5°	5	5	5	5	5	5	5	5	0	0
90°	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)