

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: ITL50276

Luminaire Tested: **GSM-XX-400-HPS-XX-4S-FG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: ITL50276
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GSM-XX-400-HPS-XX-4S-FG
Description: ARCHITECTURAL AREA LUMINAIRE - TYPE IV
Light Source: 400 WATT HPS CLEAR E-18
Ballast/Driver: -

Summary

Lumens per Lamp: 50000 (1 lamp)
Luminaire Lumens: 36257 lumens
Efficiency: 72.5%
Efficacy: 90.6 lumens/watt
Luminous Opening: Rectangular (W 1.01' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B5 - U0 - G4

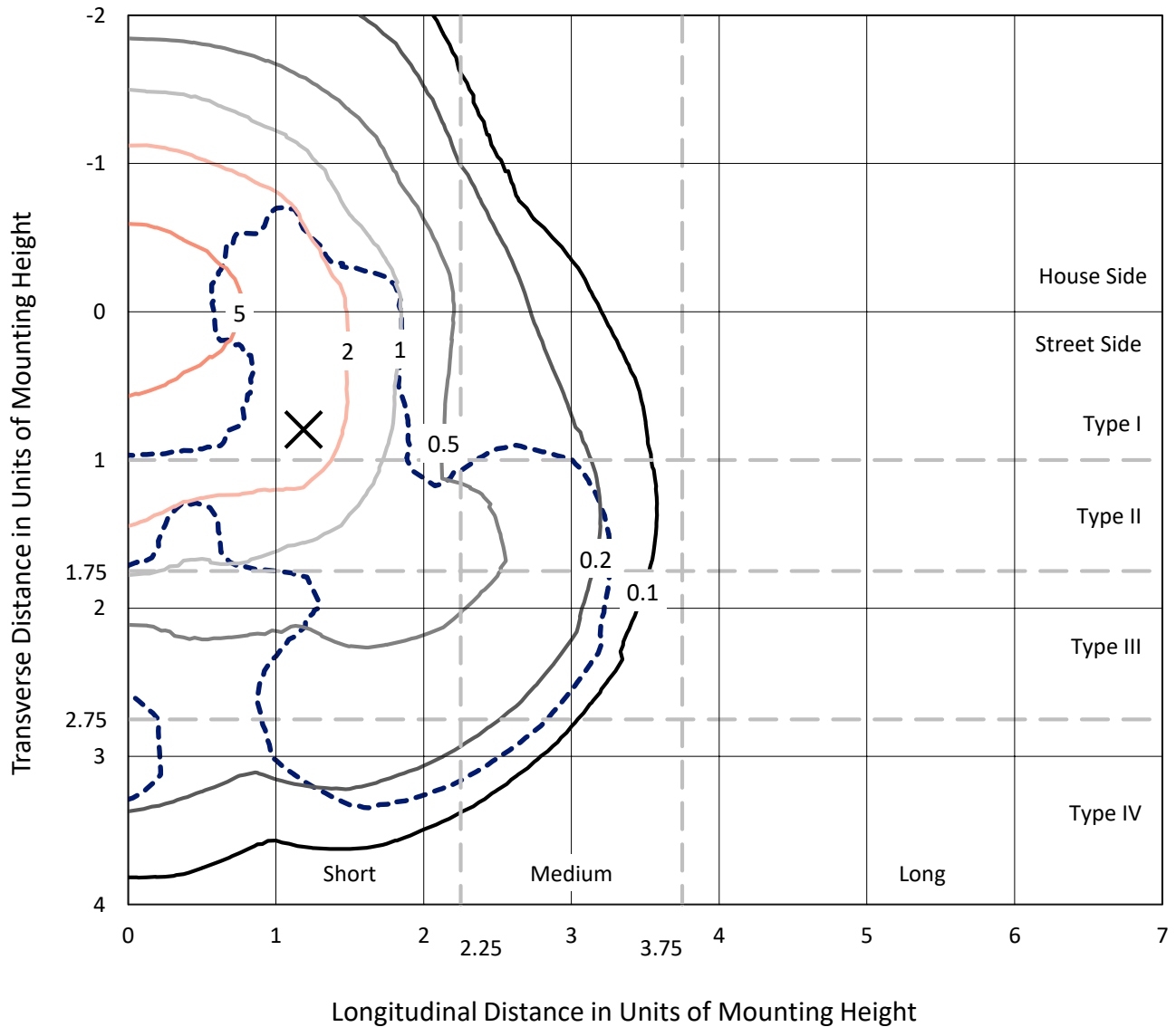
Input Watts (W): 400
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

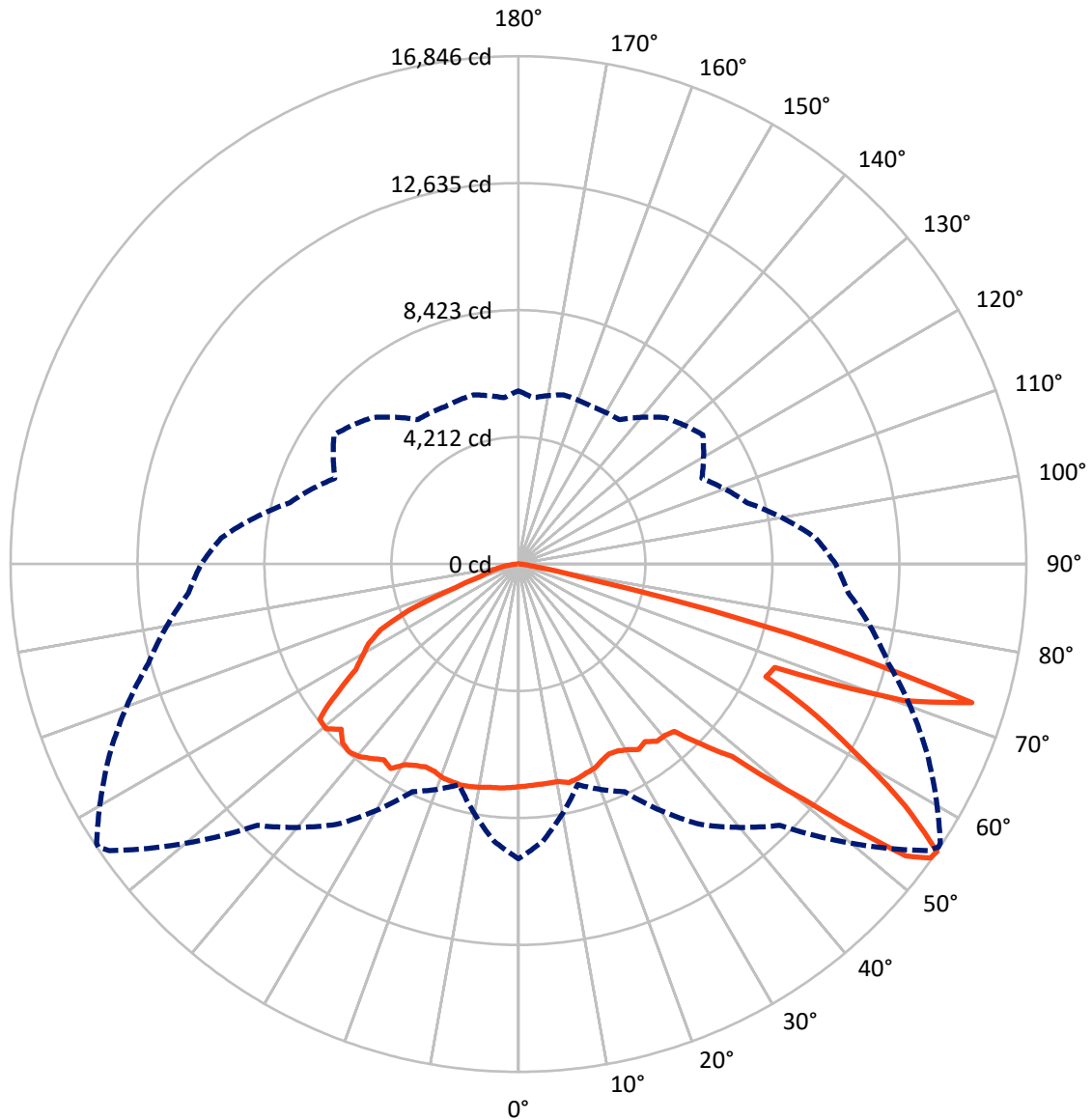
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.2 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 56.2-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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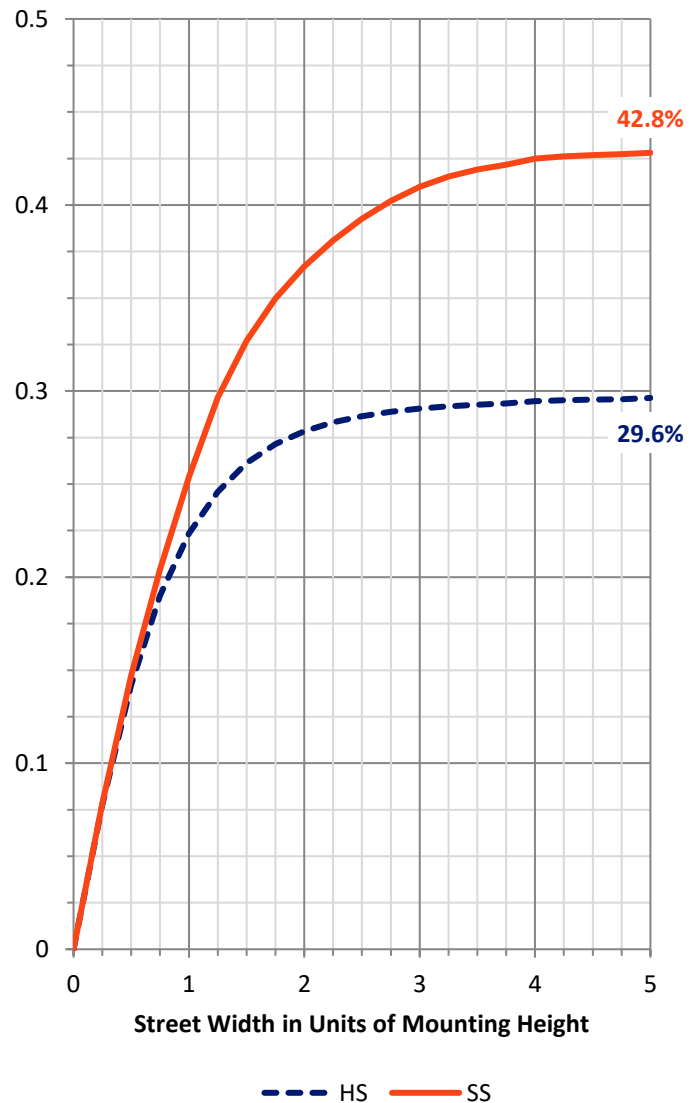
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14898.5	0.0	14898.5
	% Lamp	29.8	0.0	29.8
Street Side	Lumens	21358.4	0.0	21358.4
	% Lamp	42.7	0.0	42.7
Total	Lumens	36257.0	0.0	36257.0
	% Lamp	72.5	0.0	72.5

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	707.4	2.0	1.4
10°-20°	2096.5	5.8	4.2
20°-30°	3362.1	9.3	6.7
30°-40°	4667.2	12.9	9.3
40°-50°	6495.5	17.9	13.0
50°-60°	8182.6	22.6	16.4
60°-70°	6440.1	17.8	12.9
70°-80°	4078.2	11.2	8.2
80°-90°	227.4	0.6	0.5
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°	36257.0	100.0	72.5
0°-180°	36257.0	100.0	72.5



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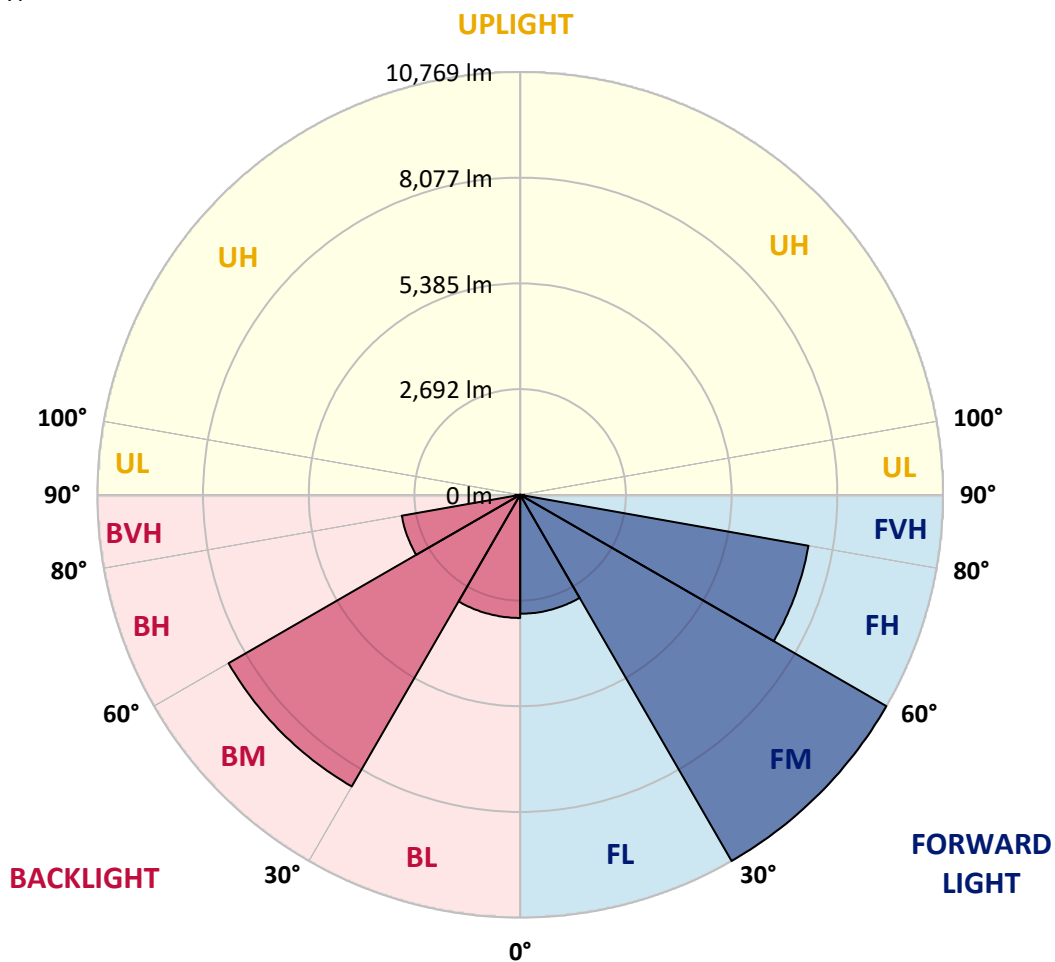
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3029.4	6.1			
FM (30°-60°)	10769.0	21.5			
FH (60°-80°)	7456.7	14.9			G3/7500
FVH (80°-90°)	103.3	0.2			G2/225
BL (0°-30°)	3136.7	6.3	B4/5000		
BM (30°-60°)	8576.2	17.2	B5		
BH (60°-80°)	3061.5	6.1	B4/5000		G4/5000
BVH (80°-90°)	124.1	0.2			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	13743.0	27.5			

BUG Rating: B5-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56.2°	65°	75°	85°
0°	7384	7384	7384	7384	7384	7384	7384	7384	7384	7384	7384
2.5°	7305	7296	7351	7351	7360	7360	7369	7360	7387	7414	7405
5°	7305	7287	7333	7342	7333	7351	7378	7342	7378	7396	7414
7.5°	7305	7296	7314	7333	7333	7351	7351	7333	7369	7387	7405
10°	7324	7314	7278	7333	7287	7324	7351	7333	7378	7405	7433
12.5°	7269	7251	7242	7242	7296	7314	7360	7442	7460	7478	7478
15°	7233	7187	7187	7205	7242	7333	7442	7378	7414	7387	7405
17.5°	7251	7160	7187	7160	7187	7442	7333	7287	7324	7351	7360
20°	7251	7196	7278	7205	7287	7215	7251	7233	7278	7251	7269
22.5°	7287	7287	7151	7060	7187	7078	7142	7078	7096	7151	7260
25°	7033	7069	6960	6960	6933	6951	6996	6978	7096	7278	7405
27.5°	6815	6851	6769	6878	6787	6797	6969	7015	7324	7460	7551
30°	6724	6706	6615	6624	6651	6787	7151	7151	7414	7651	7969
32.5°	6869	6715	6397	6469	6497	6851	7351	7333	7569	8496	8786
35°	6251	6369	6369	6270	6333	6960	7196	7233	8041	8359	8368
37.5°	6288	6270	6360	6215	6324	6778	7378	7460	7787	8323	8759
40°	6288	6260	6379	6597	6460	6606	7333	7478	7742	8587	9086
42.5°	7523	7187	7096	7115	6542	6951	7305	7587	8259	8650	8832
45°	8759	8841	8432	7887	7396	7651	8250	8541	8487	9541	10576
47.5°	10231	10131	9750	9141	8032	8141	9304	9541	9886	11739	12439
50°	11176	10740	9959	9086	9913	11194	11830	12276	13257	13938	13875
52.5°	10104	10122	8432	9177	11394	13448	15383	16092	15383	13584	13302
54°	9868	9386	7914	8559	11049	13221	16301	16791	15592	13157	12048
55°	9777	9232	7578	8332	10549	12257	16573	16846	14965	12703	10985
57.5°	9486	8923	6515	8677	9704	13729	15147	15129	13184	10049	9568
60°	8214	8050	6906	9186	8986	13039	13675	12984	11521	9704	9804
62.5°	5561	5579	7124	8241	9223	11876	11131	11094	10049	7960	7569
65°	5779	5852	6760	7124	8405	9068	9404	9023	7678	6697	6369
67.5°	7614	7051	7142	7732	8405	9059	8968	9168	7333	5979	5833
70°	8941	8141	7478	9822	11358	12893	13230	13557	10377	6842	5025
72.5°	8977	8105	6942	11376	13511	15192	15710	15728	11858	6479	4089
75°	6033	6015	4770	8105	9650	10576	10295	9341	7251	4589	3498
77.5°	1854	2344	1845	2889	3316	3344	3108	2308	2344	1690	2126
80°	582	627	563	654	600	618	645	609	591	591	936
82.5°	236	254	273	264	282	327	318	264	291	282	418
85°	91	109	109	118	118	145	136	118	136	118	154
87.5°	18	9	9	9	9	18	18	0	27	27	18
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7384	7384	7384	7384	7384	7384	7384	7384	7384	7384	7384
2.5°	7405	7405	7423	7414	7423	7423	7414	7433	7423	7396	7396
5°	7405	7405	7433	7433	7451	7469	7478	7505	7478	7451	7451
7.5°	7414	7405	7433	7451	7469	7496	7505	7542	7533	7487	7505
10°	7451	7478	7469	7496	7514	7523	7533	7533	7533	7496	7505
12.5°	7487	7505	7523	7551	7551	7551	7551	7514	7496	7460	7487
15°	7414	7451	7487	7542	7578	7587	7523	7496	7460	7423	7433
17.5°	7378	7396	7478	7533	7551	7560	7523	7469	7414	7396	7396
20°	7269	7305	7387	7469	7533	7505	7487	7423	7378	7333	7342
22.5°	7314	7324	7360	7387	7423	7451	7369	7396	7333	7324	7287
25°	7460	7478	7505	7496	7387	7369	7360	7387	7305	7251	7269
27.5°	7614	7660	7860	7669	7478	7333	7314	7296	7260	7187	7196
30°	8096	8132	8023	7941	7605	7342	7242	7205	7178	7105	7105
32.5°	8823	8823	8641	8114	7978	7378	7196	7096	7078	7006	6978
35°	8432	8423	8359	8396	7805	7542	7133	6987	6960	6878	6869
37.5°	8995	9177	9095	8269	8050	7787	7078	6878	6833	6760	6760
40°	9132	9168	9132	8959	8187	7760	7078	6769	6706	6651	6633
42.5°	9086	9041	8323	8796	8332	7760	7133	6651	6588	6524	6524
45°	10676	10277	9177	8405	8305	7605	7124	6506	6506	6442	6542
47.5°	12312	11721	9922	8677	7950	7451	6787	6369	6351	6351	6197
50°	13475	12703	10576	9468	8259	7242	6460	6115	6042	5906	5888
52.5°	12984	11930	9495	8714	8314	7006	6124	5879	5906	5761	5942
54°	11521	10740	8359	7369	7914	6960	5970	5779	5933	5661	5942
55°	10522	9895	7851	6715	7469	6869	5842	5761	5806	5534	5743
57.5°	9377	9213	7442	6260	6460	6260	5561	5252	5070	4788	4798
60°	9550	8895	7242	5970	5997	5806	5234	4879	4598	4361	4361
62.5°	7523	7669	6733	5652	5624	5252	4898	4516	4171	3980	3998
65°	6551	6615	5588	4816	5097	4852	4525	4143	3762	3598	3616
67.5°	5697	5425	4225	3498	4025	4289	3962	3671	3380	3144	3162
70°	4289	3644	2226	1926	2281	3008	3117	3071	2899	2617	2562
72.5°	3398	2871	1508	1208	1327	1690	2072	2099	2072	1990	1999
75°	2935	2399	1199	981	1072	1145	1245	1308	1336	1399	1490
77.5°	1863	1545	818	745	836	881	927	954	972	981	1018
80°	927	800	545	527	591	618	663	681	681	700	745
82.5°	418	373	309	336	382	373	409	409	400	409	472
85°	154	145	136	154	173	173	182	200	200	191	218
87.5°	27	27	27	36	36	27	36	36	36	36	55
90°	0	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)