

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: ITL52705

Luminaire Tested: **GSM-XX-400-HPS-XX-3S-FG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: ITL52705
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GSM-XX-400-HPS-XX-3S-FG
Description: ARCHITECTURAL AREA LUMINAIRE - TYPE III DISTRIBUTION
Light Source: 400-WATT CLEAR E-18 HIGH PRESSURE SODIUM
Ballast/Driver: -

Summary

Lumens per Lamp: 50000 (1 lamp)
Luminaire Lumens: 33237 lumens
Efficiency: 66.5%
Efficacy: 83.1 lumens/watt
Luminous Opening: Rectangular (W 1.01' x L: 1.03' x H: 0')
IES Classification: Type III - Medium - Full Cutoff
BUG Rating: B4 - 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

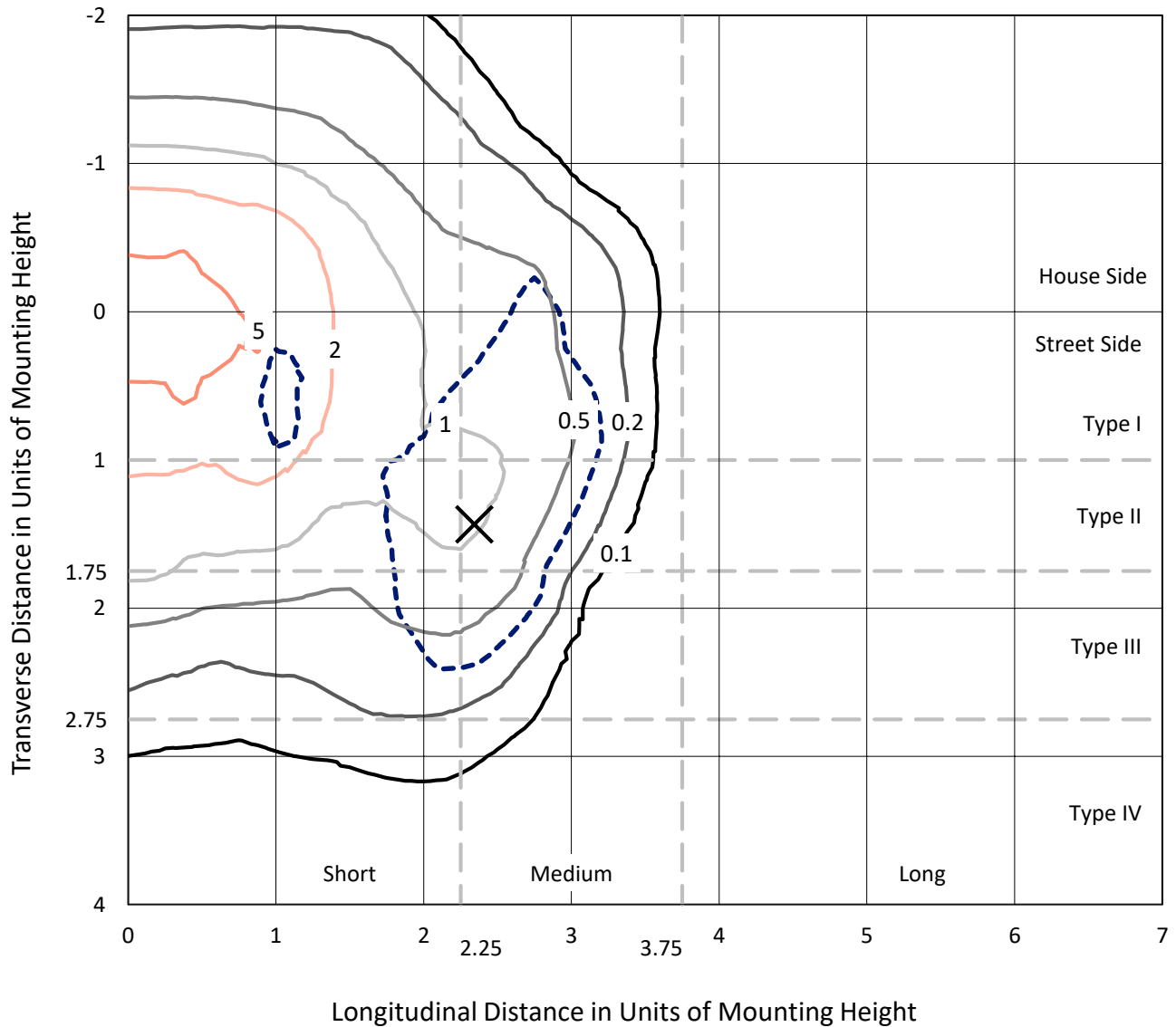


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Iso-Footcandle Lines of Horizontal Illumination

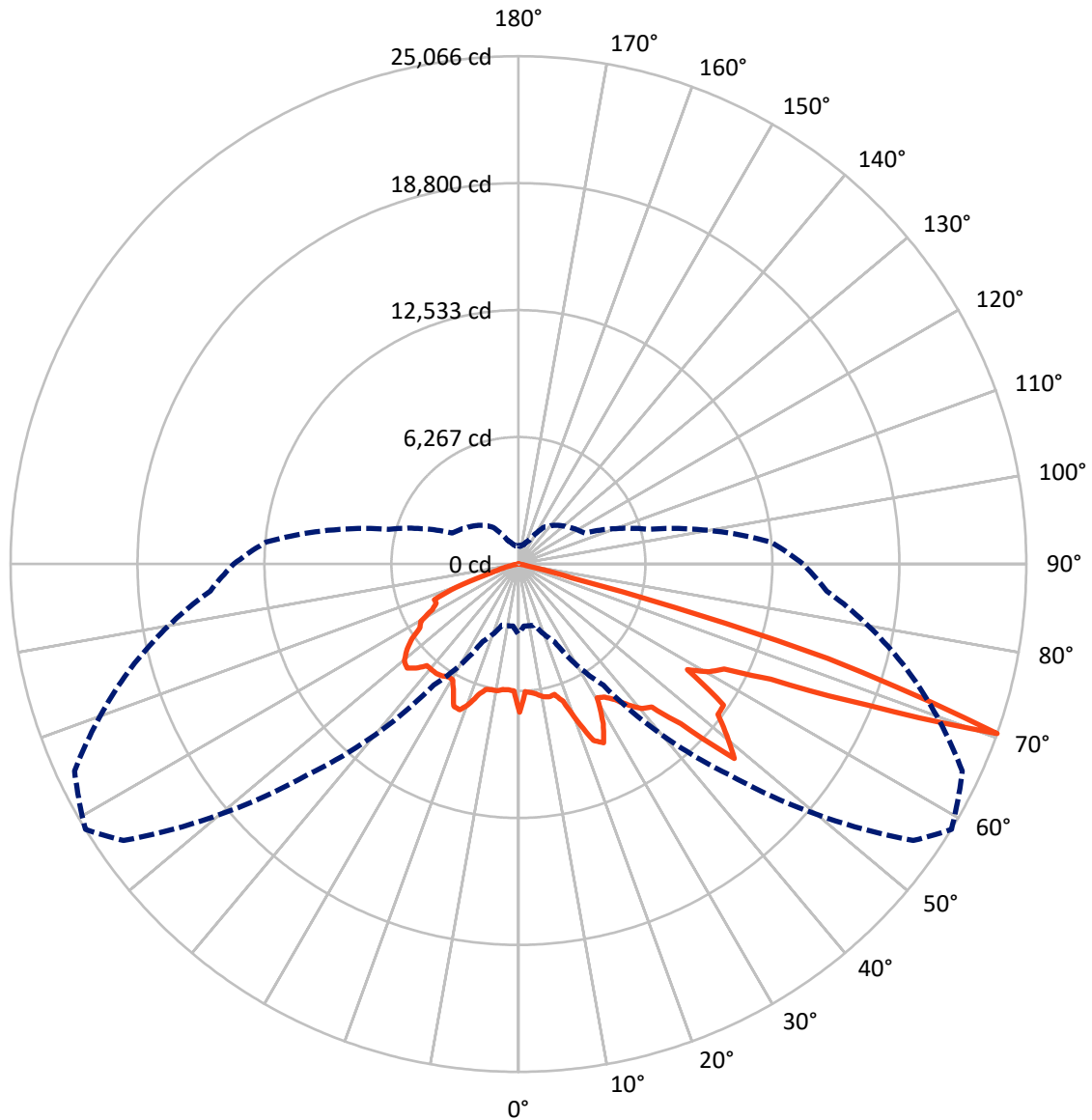
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.3 fc
 Type III - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 58.5-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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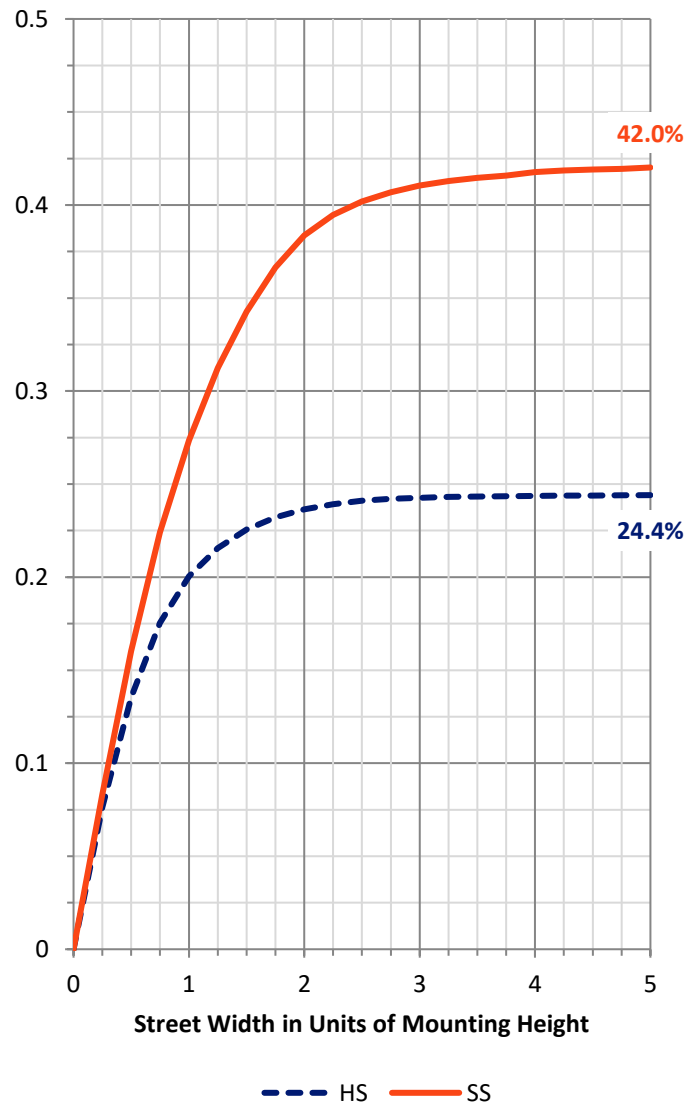
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12263.5	0.0	12263.5
	% Lamp	24.5	0.0	24.5
Street Side	Lumens	20973.5	0.0	20973.5
	% Lamp	41.9	0.0	41.9
Total	Lumens	33237.0	0.0	33237.0
	% Lamp	66.5	0.0	66.5

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	607.4	1.8	1.2
10°-20°	1883.8	5.7	3.8
20°-30°	3318.2	10.0	6.6
30°-40°	4367.6	13.1	8.7
40°-50°	5872.0	17.7	11.7
50°-60°	6535.8	19.7	13.1
60°-70°	6912.0	20.8	13.8
70°-80°	3647.5	11.0	7.3
80°-90°	92.8	0.3	0.2
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°	33237.0	100.0	66.5
0°-180°	33237.0	100.0	66.5



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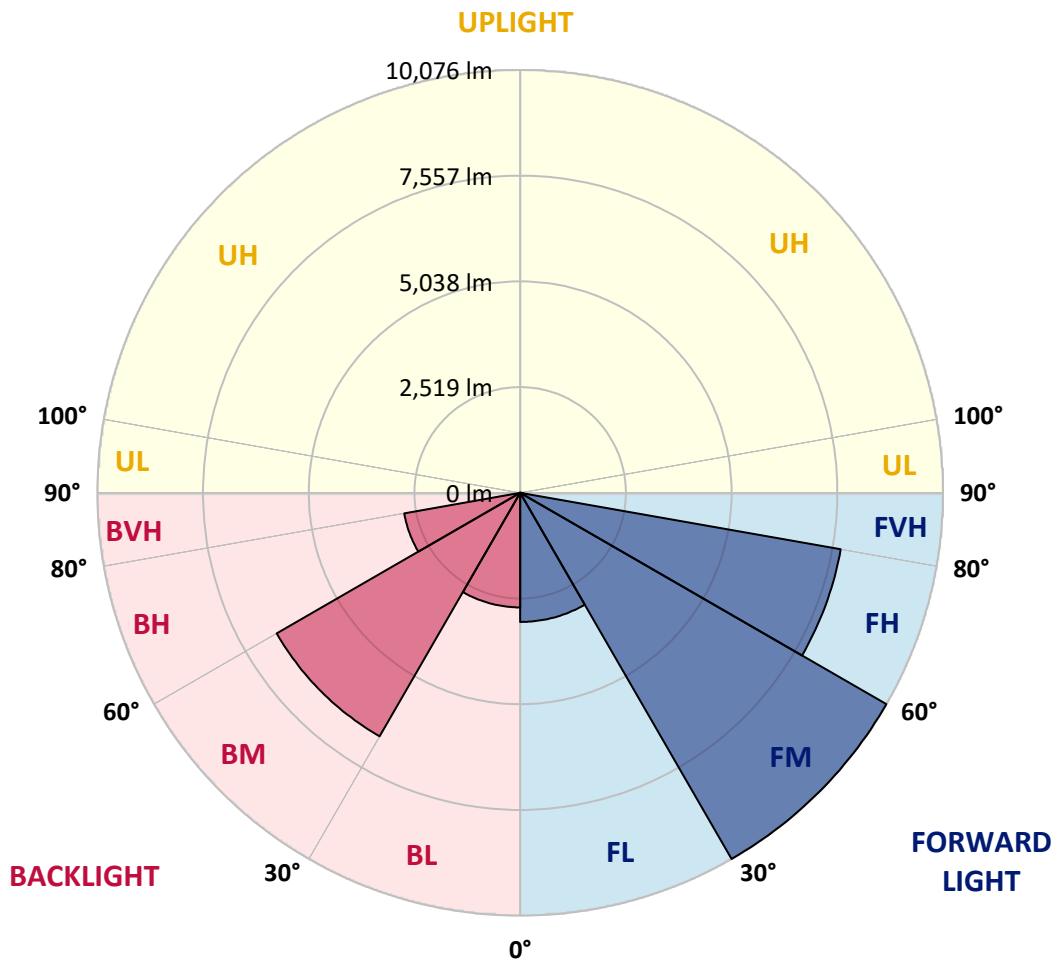
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3078.3	6.2			
FM (30°-60°)	10075.7	20.2			
FH (60°-80°)	7754.4	15.5			G4/12000
FVH (80°-90°)	65.1	0.1			G1/100
BL (0°-30°)	2731.0	5.5	B4/5000		
BM (30°-60°)	6699.7	13.4	B4/8500		
BH (60°-80°)	2805.1	5.6	B4/5000		G4/5000
BVH (80°-90°)	27.7	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	16763.0	33.5			

BUG Rating: B4-U0-G4

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58.5°	65°	75°	85°
0°	7312	7312	7312	7312	7312	7312	7312	7312	7312	7312	7312
2.5°	6410	6383	6419	6337	6328	6328	6356	6310	6346	6337	6319
5°	6429	6401	6365	6337	6346	6383	6401	6374	6410	6392	6365
7.5°	6447	6511	6356	6356	6401	6465	6492	6483	6511	6492	6492
10°	6483	6410	6401	6410	6492	6566	6675	6657	6693	6703	6648
12.5°	6392	6365	6374	6401	6538	6657	6739	6730	6748	6730	6703
15°	6356	6346	6401	6547	6611	6703	6684	6675	6821	7040	7123
17.5°	6410	6346	6410	6538	6648	6657	6903	7123	7506	8017	8127
20°	6356	6392	6392	6511	6629	6766	7734	8227	8730	9122	9214
22.5°	6228	6282	6410	6520	6566	7643	9113	9460	9606	9524	9214
25°	6118	6136	6310	6511	6885	8885	9953	9771	9506	8730	8136
27.5°	5972	6036	6145	6365	7734	10008	9670	8921	8191	7707	7579
30°	5844	5963	6054	6246	8648	10072	8282	7661	7652	7999	8017
32.5°	5716	5780	5917	6392	9396	9232	7579	7826	8036	8419	8483
35°	5515	5488	5780	6849	9615	7762	7954	8227	8620	8949	8949
37.5°	5260	5287	5689	7323	9086	7378	8520	8830	9131	9250	9049
40°	5187	5251	5570	7616	7652	7716	9040	9387	9451	9405	9460
42.5°	5351	5397	5643	7497	6931	8100	9588	9652	9908	11524	11789
45°	5735	5707	5899	6894	6876	8739	10218	11250	12948	12802	11360
47.5°	5990	5844	6109	6292	6867	9688	12711	14346	14008	11953	11250
50°	6155	6145	6346	5908	7579	10209	14327	13332	12574	12446	12556
52.5°	6538	6639	6693	6027	8867	12419	13040	12337	12583	12172	10392
55°	7323	7396	5917	6009	9396	12035	12501	12291	11022	9478	8282
57.5°	7762	7762	5908	6602	9341	9908	9825	9835	9844	9186	9807
60°	8328	8374	7031	7771	9314	9049	9488	10803	11076	9862	10382
62.5°	7524	7533	6639	7607	9250	8648	10839	11396	11588	9415	11013
65°	5607	5360	4703	6109	8282	9214	12355	13697	11798	11634	9570
67.5°	3908	3506	3260	4894	6264	10519	16838	18601	18053	14355	11798
70°	3452	3068	3123	4246	7296	14702	23787	25066	24171	19788	15268
72.5°	2465	2411	2602	4127	8200	15524	18519	15971	15688	15953	10145
75°	1772	1735	1982	3223	6082	6931	4666	2712	4274	4064	2502
77.5°	1205	1214	1214	2164	3223	1881	767	438	594	447	548
80°	256	347	557	941	1479	1050	484	237	265	219	283
82.5°	73	37	91	164	256	210	146	82	128	100	128
85°	18	9	9	27	27	27	46	27	55	37	46
87.5°	0	0	0	0	0	9	9	9	9	9	9
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°	7312	7312	7312	7312	7312	7312	7312	7312	7312	7312	7312
2.5°	6319	6310	6292	6282	6264	6237	6228	6209	6228	6246	6282
5°	6337	6319	6282	6246	6219	6182	6155	6136	6127	6164	6209
7.5°	6465	6438	6365	6292	6209	6136	6091	6072	6063	6155	6465
10°	6629	6584	6511	6410	6301	6173	6082	6027	6018	6072	6082
12.5°	6684	6620	6529	6429	6301	6173	6036	5972	5926	5899	5935
15°	7104	7004	6794	6547	6301	6182	6009	5908	5844	5817	5844
17.5°	8127	8008	7625	7049	6566	6173	5981	5808	5725	5680	5716
20°	9086	8912	8437	7817	7095	6346	5908	5689	5588	5534	5570
22.5°	9013	8821	8520	8145	7552	6675	5862	5561	5424	5388	5497
25°	7926	7817	7762	7826	7643	6967	5972	5451	5260	5214	5241
27.5°	7451	7314	7086	6922	7123	7013	6127	5342	5104	5004	5059
30°	7862	7680	7296	6830	6438	6639	6191	5251	4940	4812	4840
32.5°	8282	8063	7579	6976	6328	6100	6054	5159	4739	4602	4639
35°	8702	8428	7771	7205	6419	5735	5689	5068	4547	4383	4420
37.5°	8803	8556	8017	7250	6483	5735	5241	4885	4347	4155	4182
40°	9241	8921	8036	7323	6447	5616	4876	4621	4109	3917	3945
42.5°	11378	10803	9232	7479	6346	5488	4739	4274	3844	3662	3671
45°	10921	10483	9862	8602	6456	5315	4584	3936	3580	3388	3397
47.5°	10821	10346	9478	8629	6922	5232	4374	3726	3342	3123	3141
50°	12081	11606	10282	7944	7104	5278	4137	3497	3123	2895	2886
52.5°	9917	9570	9186	8401	6264	5223	3936	3278	2904	2685	2666
55°	8374	8355	7415	7314	6109	4602	3735	3096	2703	2484	2465
57.5°	9816	9177	8200	6301	5534	4383	3479	2904	2493	2246	2228
60°	9488	9068	7196	6666	5013	4292	3306	2703	2283	2027	2009
62.5°	9460	8237	6438	5433	4493	3972	3141	2493	2045	1799	1772
65°	8474	7396	6072	5050	4191	3936	3114	2265	1790	1552	1516
67.5°	10291	9725	6931	5251	4100	3963	2785	1872	1452	1269	1260
70°	14044	12492	6620	3607	3132	2703	2228	1306	995	877	913
72.5°	10246	9177	3424	1589	1333	1881	1160	721	548	502	566
75°	3169	3187	1662	1004	794	749	457	265	219	219	274
77.5°	922	1041	502	502	484	402	310	155	146	128	128
80°	347	283	219	256	247	173	210	91	82	82	91
82.5°	110	110	91	110	100	73	82	37	46	37	37
85°	46	55	37	37	37	18	27	18	18	9	18
87.5°	9	18	18	18	9	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)