

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: ITL52704

Luminaire Tested: **GSM-XX-400-HPS-XX-2S-FG**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: ITL52704  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GSM-XX-400-HPS-XX-2S-FG  
Description: ARCHITECTURAL AREA LUMINAIRE - TYPE II DISTRIBUTION  
Light Source: 400-WATT CLEAR E-18 HIGH PRESSURE SODIUM  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 50000 (1 lamp)  
Luminaire Lumens: 34236.3 lumens  
Efficiency: 68.5%  
Efficacy: 85.6 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

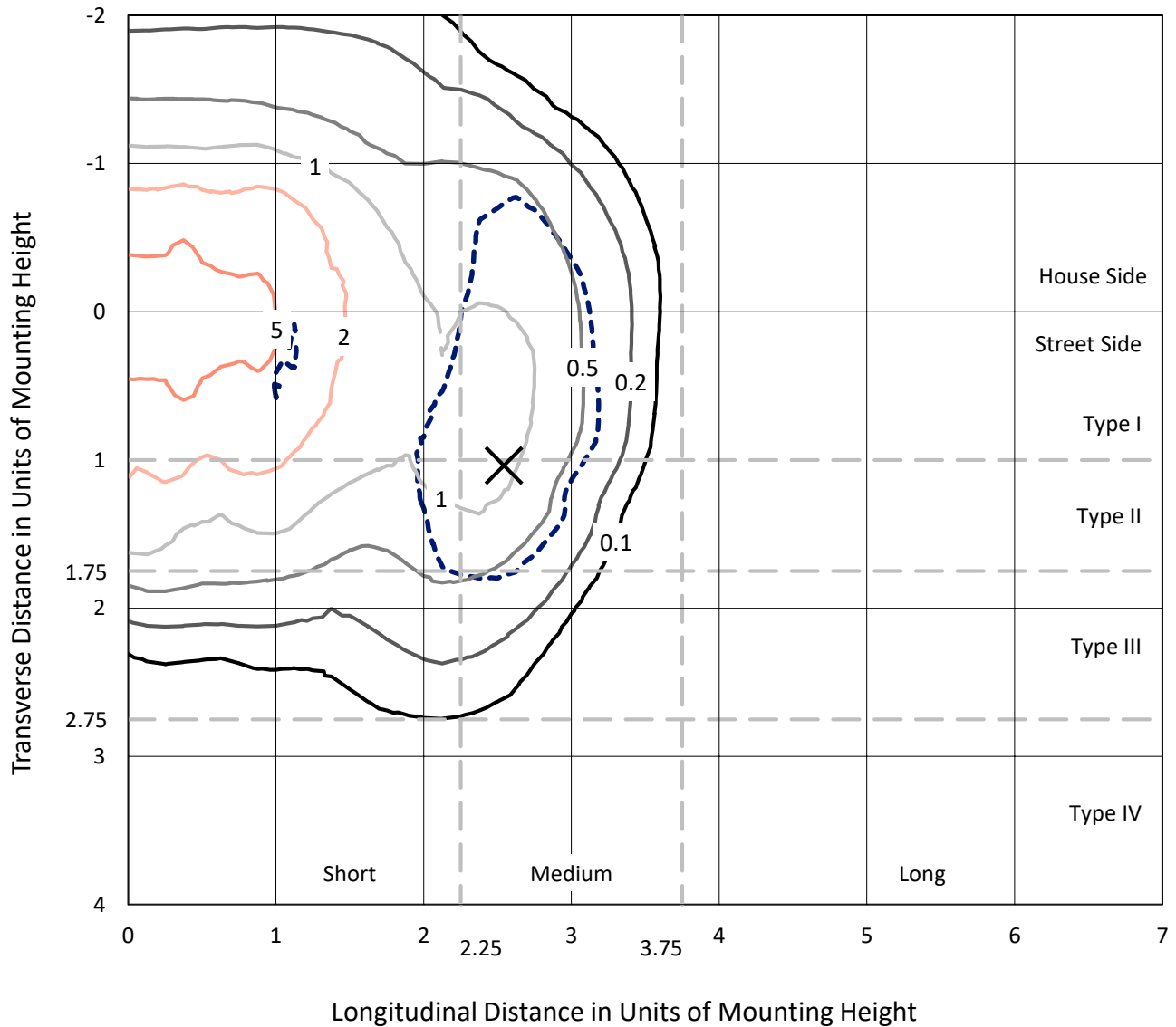


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### Iso-Footcandle Lines of Horizontal Illumination

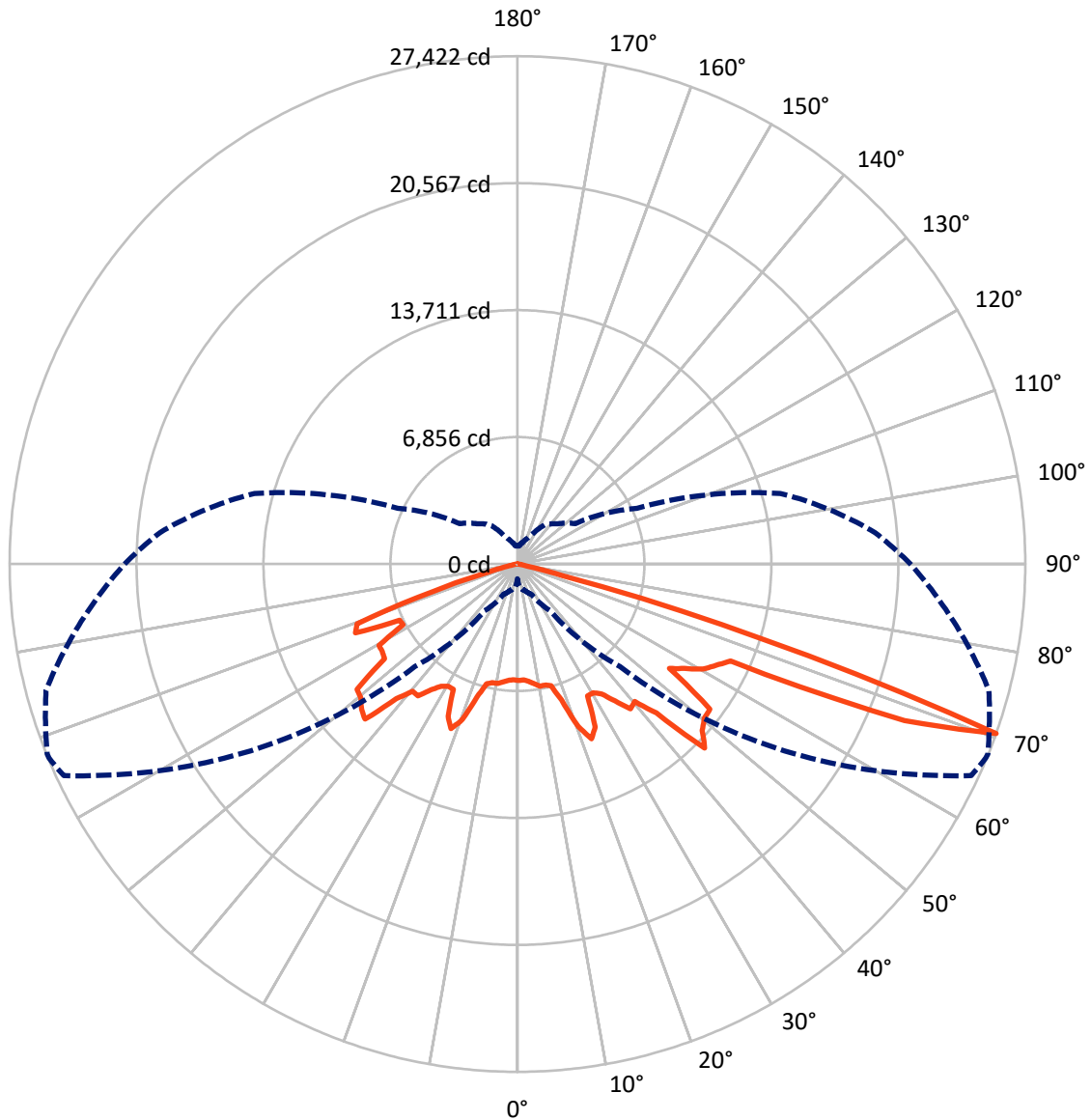
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.1 fc  
 Type III - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67.8-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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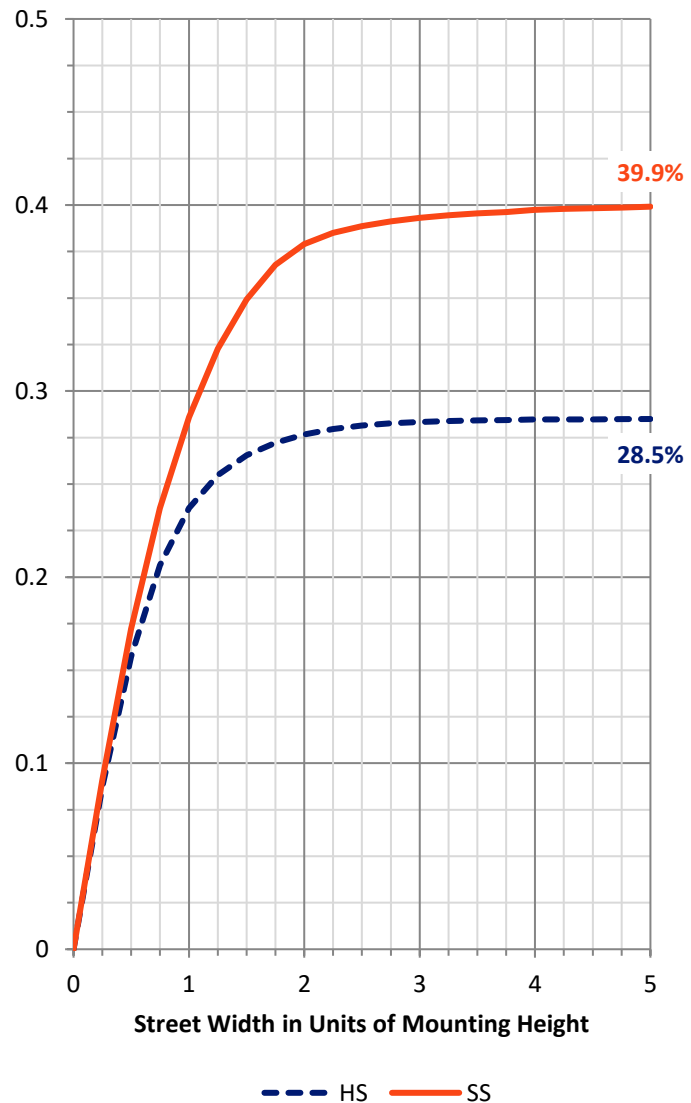
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	14317.1	0.0	14317.1
	% Lamp	28.6	0.0	28.6
<b>Street Side</b>	Lumens	19919.3	0.0	19919.3
	% Lamp	39.8	0.0	39.8
<b>Total</b>	Lumens	34236.3	0.0	34236.3
	% Lamp	68.5	0.0	68.5

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	605.4	1.8	1.2
10°-20°	1905.4	5.6	3.8
20°-30°	3466.1	10.1	6.9
30°-40°	4569.5	13.3	9.1
40°-50°	6347.2	18.5	12.7
50°-60°	6817.3	19.9	13.6
60°-70°	7021.8	20.5	14.0
70°-80°	3406.5	9.9	6.8
80°-90°	97.0	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°	34236.3	100.0	68.5
0°-180°	34236.3	100.0	68.5



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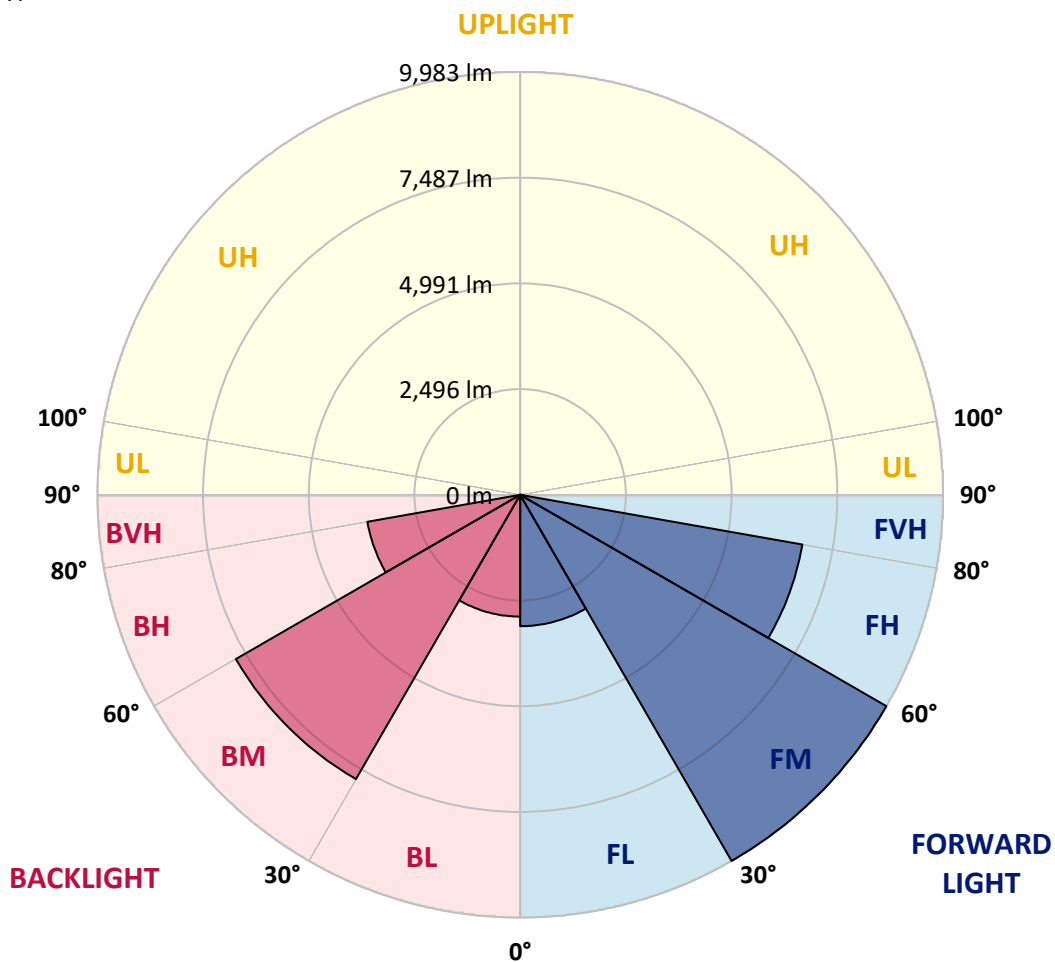
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3101.3	6.2			
FM	(30°-60°)	9982.9	20.0			
FH	(60°-80°)	6765.4	13.5			G3/7500
FVH	(80°-90°)	69.7	0.1			G1/100
BL	(0°-30°)	2875.7	5.8	B4/5000		
BM	(30°-60°)	7751.2	15.5	B4/8500		
BH	(60°-80°)	3662.9	7.3	B4/5000		G4/5000
BVH	(80°-90°)	27.3	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		15763.7	31.5			

**BUG Rating: B4-U0-G4**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67.8°	75°	85°
0°	6291	6291	6291	6291	6291	6291	6291	6291	6291	6291	6291
2.5°	6374	6301	6328	6264	6273	6273	6273	6273	6264	6264	6264
5°	6410	6337	6282	6310	6346	6374	6392	6383	6365	6365	6346
7.5°	6465	6410	6319	6365	6410	6429	6465	6492	6529	6538	6520
10°	6483	6365	6337	6410	6511	6584	6639	6693	6712	6693	6693
12.5°	6374	6319	6310	6429	6575	6693	6776	6757	6703	6693	6648
15°	6319	6264	6356	6511	6657	6748	6712	6748	6821	6931	7013
17.5°	6209	6200	6319	6502	6675	6675	6812	7415	7716	8063	8410
20°	6100	6191	6255	6419	6648	6739	7661	8885	9360	9634	9926
22.5°	6045	6054	6200	6401	6511	7479	9241	10172	10246	10328	10172
25°	5954	5972	6100	6319	6712	8721	10309	10136	9752	9278	8648
27.5°	5844	5890	5954	6209	7424	9862	10063	8547	8054	7935	7917
30°	5680	5817	5835	6054	8346	10172	8529	7871	8063	8374	8410
32.5°	5497	5515	5643	6091	9141	9205	7698	8301	8364	8492	8794
35°	5205	5232	5470	6429	9205	7734	7999	8648	9077	9606	9990
37.5°	4968	5031	5625	6821	8374	7232	8273	9661	9917	10054	9972
40°	4876	5022	5835	7132	7141	7433	9013	9798	9752	9999	10501
42.5°	4949	5159	5981	6867	6538	7552	9396	10145	10994	12419	13597
45°	5278	5406	6219	6009	6237	8054	10182	13259	14181	13670	12793
47.5°	6027	5662	6639	5762	6072	8529	12693	14181	13423	12748	13003
50°	6191	5963	6958	5817	7123	10017	13807	12748	13085	13989	14437
52.5°	6520	6365	6794	5826	8437	11597	11789	12766	13012	12738	11241
55°	7305	6821	5525	5305	8301	10410	10775	10757	9953	9716	9241
57.5°	6794	6821	4958	5305	8090	8839	8730	10136	10638	10373	10757
60°	5351	6009	5324	6027	8200	8337	8821	10994	11524	11497	11634
62.5°	3397	4337	4328	5808	8054	7725	9259	11597	12035	11287	11844
65°	1790	2301	2511	3899	5872	6657	9533	12108	12638	12309	11652
67.5°	1205	1498	1507	2621	3324	6319	12510	20637	22546	18802	16747
70°	804	1278	1470	1817	3077	7826	17587	27029	27422	26353	22893
72.5°	493	1041	1370	1817	3863	8136	13012	15916	13734	16729	13332
75°	292	785	1224	1342	3370	4429	3059	3059	2520	3068	2045
77.5°	201	566	941	950	2365	1863	1023	676	594	530	575
80°	110	219	475	493	1187	1214	749	310	265	274	292
82.5°	37	37	110	137	310	347	256	146	110	119	137
85°	18	18	18	27	46	46	55	55	37	46	46
87.5°	0	0	0	9	9	9	18	27	0	18	27
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°	6291	6291	6291	6291	6291	6291	6291	6291	6291	6291	6291
2.5°	6264	6273	6255	6255	6228	6219	6209	6200	6164	6191	6282
5°	6346	6337	6319	6292	6264	6228	6219	6145	6109	6127	6246
7.5°	6520	6511	6456	6410	6319	6237	6182	6109	6063	6109	6502
10°	6675	6657	6593	6511	6401	6273	6182	6063	5999	6145	6118
12.5°	6629	6620	6584	6538	6438	6319	6164	6045	5926	5890	5990
15°	7059	7068	6885	6602	6419	6328	6155	5972	5835	5762	5862
17.5°	8483	8428	7972	7333	6703	6255	6127	5872	5698	5643	5716
20°	9962	9889	9524	8666	7524	6474	5981	5762	5607	5506	5588
22.5°	10099	10017	9816	9497	8556	7104	5926	5616	5470	5360	5479
25°	8547	8520	8739	9150	9004	7826	6109	5479	5251	5168	5278
27.5°	7871	7771	7552	7616	8374	8200	6629	5351	5050	4940	5041
30°	8346	8255	8063	7406	7113	7826	7022	5305	4876	4730	4840
32.5°	8784	8648	8090	7661	6867	6940	7104	5342	4648	4520	4602
35°	9935	9762	9068	7899	7031	6145	6657	5451	4447	4292	4383
37.5°	9908	9807	9524	8684	7086	6200	5963	5525	4255	4064	4146
40°	10501	10291	9542	8657	7524	6036	5251	5369	4045	3826	3908
42.5°	13597	13268	11606	9068	7479	6018	4995	4940	3817	3543	3616
45°	12693	12674	12638	11396	7880	6200	4858	4401	3598	3287	3342
47.5°	12985	12748	11834	11387	9177	6209	4639	3872	3379	3050	3123
50°	14309	14199	13158	10328	9688	6629	4484	3488	3077	2831	2886
52.5°	10894	10958	11204	10912	8547	6976	4484	3251	2849	2612	2648
55°	9095	9250	8775	8830	8072	5762	4365	3059	2648	2402	2429
57.5°	11076	11213	10401	8036	6839	4721	3735	2867	2438	2192	2192
60°	11195	11067	9506	8346	6191	4383	3278	2676	2228	1982	1972
62.5°	10702	9488	8237	6502	5041	4009	3105	2493	2000	1762	1735
65°	11213	9780	8739	6392	4484	3771	3041	2255	1762	1507	1498
67.5°	16519	15067	13186	8072	4264	3744	2767	2000	1525	1242	1224
70°	21212	19386	14702	7123	3799	3068	2584	1653	1242	977	968
72.5°	12684	11816	7771	3616	1799	1982	1425	1050	794	685	712
75°	2529	2940	2182	1306	648	676	438	420	338	338	384
77.5°	749	959	575	484	438	347	164	155	137	119	164
80°	338	301	265	265	228	164	100	91	82	73	91
82.5°	128	128	100	110	100	64	46	46	37	37	37
85°	55	46	37	46	37	27	18	18	18	18	18
87.5°	9	18	18	18	18	9	0	0	0	0	18
90°	0	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)