

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: ITL53977

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: ITL53977  
Test Lab: INDEPENDENT TESTING LABORATORIES, INC.  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GSM-XX-400-HPS-XX-4S-XX-FG-HS  
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE - TYPE IV DISTRIBUTION WITH HOUSE SIDE SHIELD  
Light Source: 400 WATT HPS CLEAR E-18  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 50000 (1 lamp)  
Luminaire Lumens: 20124.9 lumens  
Efficiency: 40.2%  
Efficacy: 50.3 lumens/watt  
Luminous Opening: Circular (Dia: 1.74' x H: 0')  
IES Classification: Type IV - Short - Full Cutoff  
BUG Rating: B3 - 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

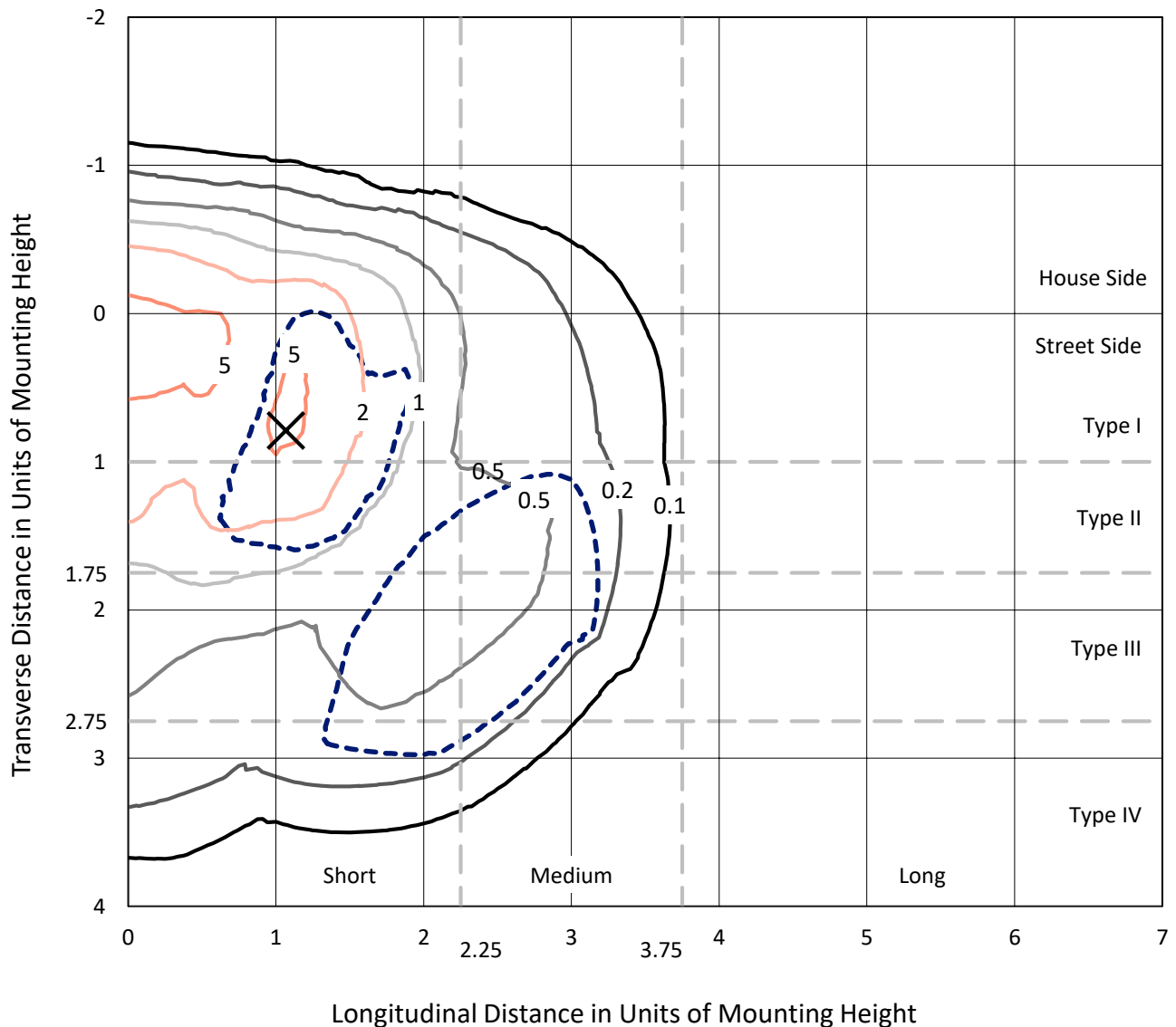


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

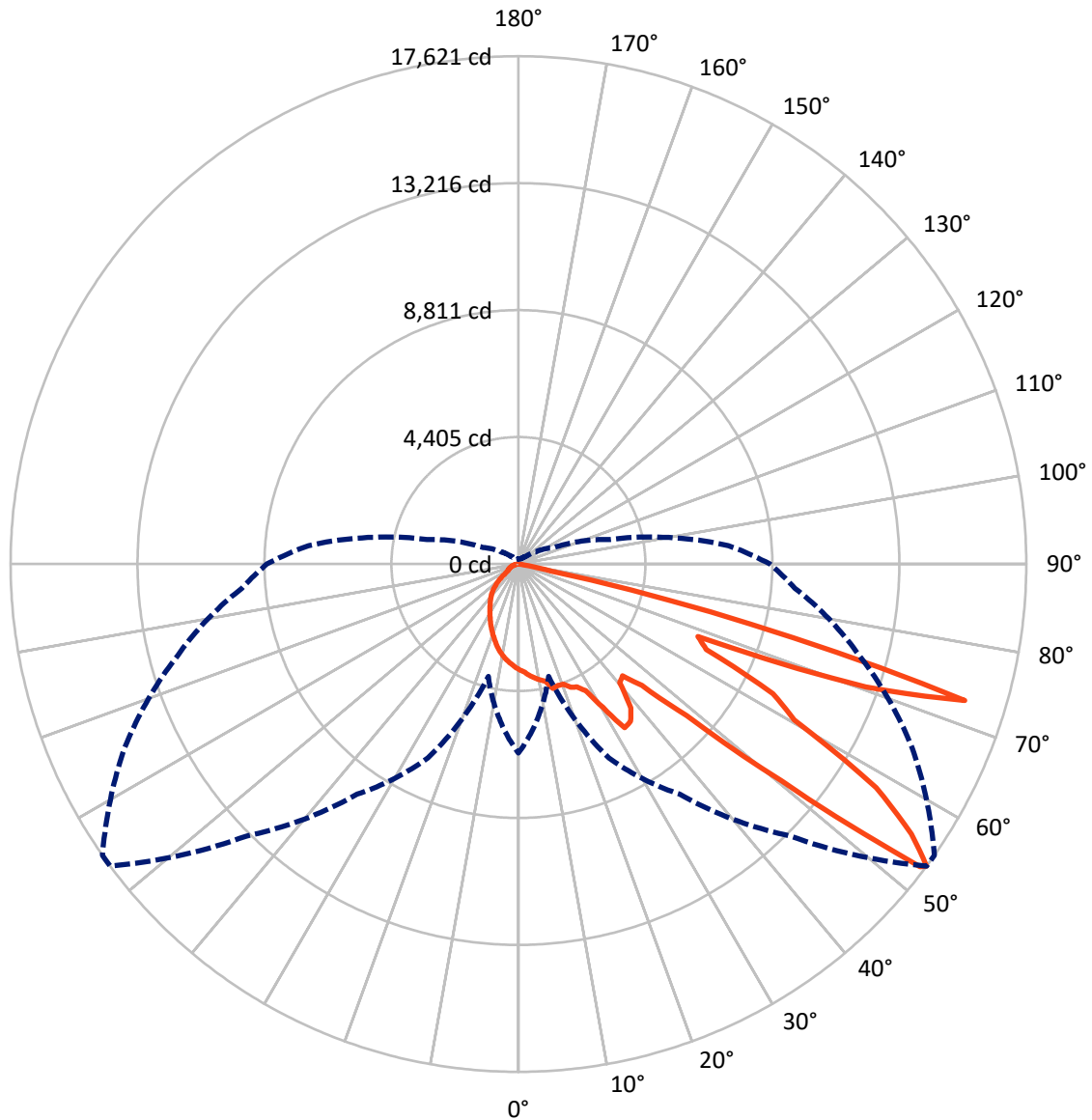


Based on 25 foot mounting height. Maximum calculated value = 6.8 fc  
 Type IV - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 53.5-Deg Lateral    - - - Horizontal Cone Through 53-Deg Vertical

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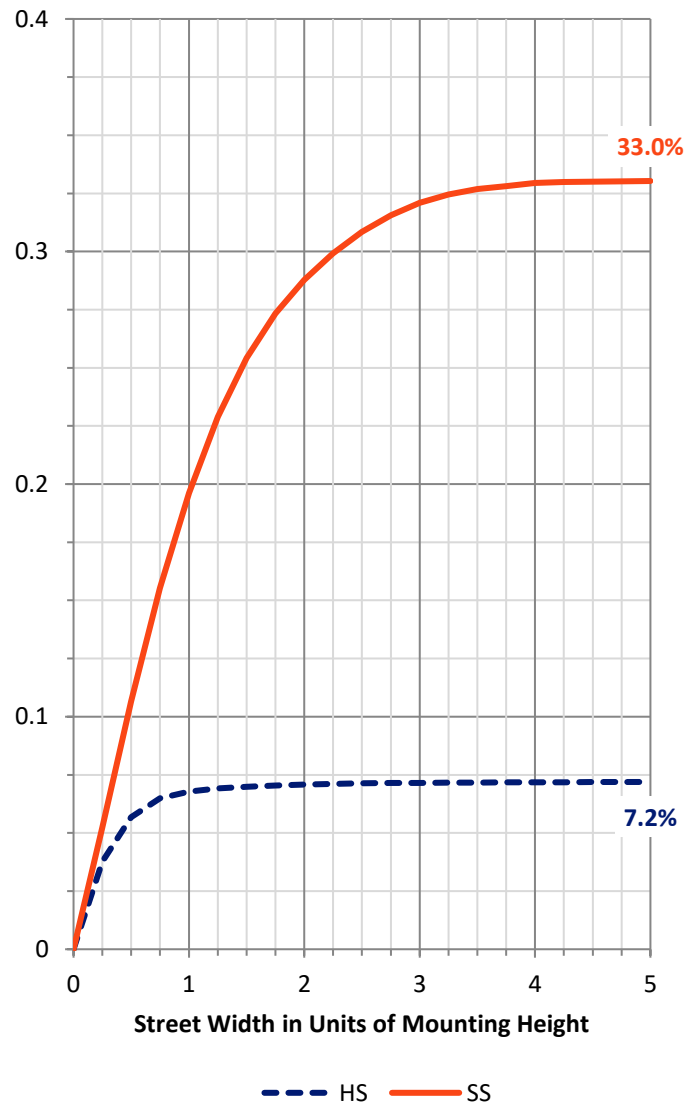
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3625.4	0.0	3625.4
	% Lamp	7.3	0.0	7.3
<b>Street Side</b>	Lumens	16499.5	0.0	16499.5
	% Lamp	33.0	0.0	33.0
<b>Total</b>	Lumens	20124.9	0.0	20124.9
	% Lamp	40.2	0.0	40.2

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	351.1	1.7	0.7
10°-20°	1025.3	5.1	2.1
20°-30°	1670.7	8.3	3.3
30°-40°	2243.6	11.1	4.5
40°-50°	3078.3	15.3	6.2
50°-60°	5059.8	25.1	10.1
60°-70°	3899.9	19.4	7.8
70°-80°	2749.8	13.7	5.5
80°-90°	46.4	0.2	0.1
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°	20124.9	100.0	40.2
0°-180°	20124.9	100.0	40.2



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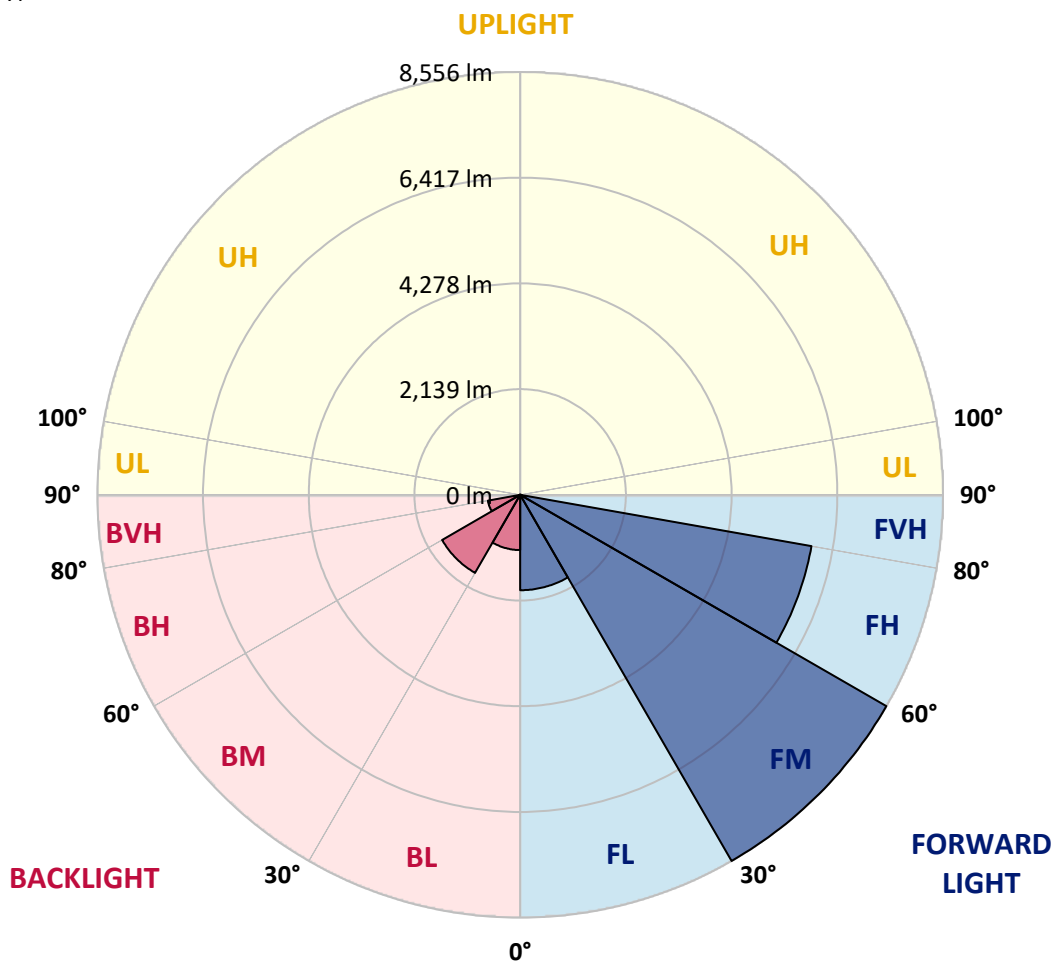
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1930.2	3.9			
FM	(30°-60°)	8556.4	17.1			
FH	(60°-80°)	5985.1	12.0			G3/7500
FVH	(80°-90°)	27.8	0.1			G1/100
BL	(0°-30°)	1116.9	2.2	B3/2500		
BM	(30°-60°)	1825.3	3.7	B2/2500		
BH	(60°-80°)	664.6	1.3	B2/1000		G2/1000
BVH	(80°-90°)	18.6	0.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		29875.1	59.8			

**BUG Rating: B3-U0-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	53.5°	55°	65°	75°	85°
0°	3666	3666	3666	3666	3666	3666	3666	3666	3666	3666	3666
2.5°	3819	3810	3782	3782	3773	3773	3745	3763	3745	3736	3708
5°	4060	4032	4004	3986	3967	3930	3875	3884	3838	3800	3736
7.5°	4264	4236	4208	4181	4143	4069	3986	3986	3912	3828	3736
10°	4449	4412	4384	4329	4264	4208	4088	4097	3977	3884	3782
12.5°	4579	4542	4477	4422	4394	4264	4171	4181	4143	4079	3940
15°	4690	4663	4570	4524	4440	4366	4486	4477	4292	4051	3847
17.5°	4727	4727	4625	4579	4468	4635	4431	4440	4236	4079	3875
20°	4783	4820	4700	4616	4616	4625	4449	4449	4412	4273	4023
22.5°	4802	4885	4755	4635	4829	4598	4644	4663	4533	4366	4134
25°	4820	4848	4792	4690	4774	4755	4727	4718	4792	4839	4635
27.5°	4820	4885	4839	4792	4802	4866	4978	5006	5589	5682	4931
30°	4783	4839	4820	4885	4904	4996	5775	5830	6294	6183	5673
32.5°	4802	4783	4774	4913	4987	5386	6776	6720	6785	6776	5691
35°	4653	4727	4820	4876	5070	6359	6702	6720	6674	5506	4449
37.5°	4468	4505	4672	4811	5200	6461	6331	6442	5293	4486	4079
40°	4227	4292	4533	5061	5460	5960	5413	5413	4959	5098	5061
42.5°	3986	4069	4635	4820	5562	5719	5302	5237	5710	6776	6433
45°	4876	4644	4635	4310	5636	6090	6007	5960	7314	7962	6906
47.5°	5747	5729	4505	4588	6331	7267	7861	7759	9028	9835	8852
50°	5747	5617	4422	5098	7490	8018	11828	11587	13904	12273	9965
52.5°	6229	5423	4051	7073	9186	12124	17454	17529	14970	12467	9687
53°	6563	5756	4041	7425	9751	13348	17621	17621	15072	12236	9631
55°	6526	6201	4922	8435	9677	15925	16546	16416	13487	10938	8685
57.5°	5284	5460	6081	8899	9325	13302	14636	15026	12291	9177	7453
60°	4375	4551	6563	8426	9566	13329	10994	10901	10104	8185	7638
62.5°	3819	4737	6099	6387	8862	10827	9918	10159	9585	9631	6554
65°	4839	5200	5348	6211	6461	7462	7156	7851	6489	5738	4774
67.5°	6618	5654	4338	4922	5830	7175	6720	6220	5404	4653	4941
70°	6600	5821	3986	5877	9529	11383	12783	11550	8000	5793	5145
72.5°	6192	5525	4468	8769	12421	14154	16194	15999	11457	5432	4079
75°	3133	3374	2225	4690	7749	8250	8296	9492	6359	3708	3050
77.5°	260	426	463	686	751	1159	1149	1891	1520	983	1622
80°	111	102	74	139	139	204	167	204	232	269	695
82.5°	37	46	9	37	37	65	46	74	93	102	222
85°	0	0	0	0	0	9	0	19	28	28	56
87.5°	0	0	0	0	0	0	0	0	0	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°	3666	3666	3666	3666	3666	3666	3666	3666	3666	3666	3666
2.5°	3689	3680	3634	3597	3569	3541	3504	3485	3476	3467	3504
5°	3708	3671	3606	3532	3467	3420	3383	3356	3328	3337	3356
7.5°	3689	3643	3541	3448	3365	3309	3226	3179	3161	3152	3170
10°	3717	3643	3495	3365	3244	3142	3077	3003	2948	2938	2966
12.5°	3856	3763	3541	3300	3115	2975	2874	2772	2716	2707	2744
15°	3745	3634	3402	3179	2975	2790	2651	2549	2484	2466	2521
17.5°	3763	3634	3337	3059	2809	2605	2438	2327	2243	2215	2243
20°	3875	3717	3337	2957	2660	2429	2243	2095	2002	1993	2021
22.5°	3958	3745	3281	2855	2503	2252	2058	1900	1789	1780	1798
25°	4394	4051	3346	2734	2354	2095	1882	1706	1604	1567	1613
27.5°	4561	4162	3365	2614	2188	1937	1715	1520	1400	1353	1390
30°	5219	4625	3420	2447	2049	1770	1548	1335	1196	1149	1186
32.5°	5098	4496	3356	2308	1910	1613	1372	1140	992	955	983
35°	4088	3717	2938	2215	1780	1474	1177	955	806	751	797
37.5°	3828	3495	2716	2095	1669	1316	992	760	621	565	593
40°	4598	4060	2790	1993	1557	1168	806	584	454	417	445
42.5°	5738	4829	2864	1891	1446	1020	612	417	343	324	334
45°	6173	5237	2929	1789	1316	862	463	315	287	269	297
47.5°	7888	6452	3050	1678	1149	686	343	278	250	232	241
50°	8732	7100	3217	1548	973	501	297	241	213	195	204
52.5°	8732	7304	3291	1390	779	389	260	213	185	176	185
53°	8723	7314	3291	1353	742	380	260	204	176	176	185
55°	7731	6544	3235	1214	593	343	232	185	176	167	185
57.5°	7036	6136	3077	1038	473	315	213	185	176	158	167
60°	6989	5979	2855	816	417	278	204	176	167	158	167
62.5°	5729	5089	2429	603	389	269	204	176	158	148	148
65°	4607	4218	1928	463	371	250	195	167	139	139	148
67.5°	4690	4023	1511	408	315	232	176	139	139	121	130
70°	4329	3485	1094	352	278	204	148	121	121	102	111
72.5°	3356	2688	751	306	241	167	130	102	83	83	93
75°	2503	1919	538	241	195	130	93	74	65	65	74
77.5°	1427	1085	343	185	148	93	65	56	46	46	56
80°	649	510	176	111	93	56	37	37	28	28	37
82.5°	232	204	83	65	56	28	19	9	9	9	19
85°	74	56	37	37	28	0	0	0	0	0	0
87.5°	19	9	0	9	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)