

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: P232798

Luminaire Tested: **CTN-10-9-D-E1-T2**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232798
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-7)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-10-9-D-E1-T2
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 4000K LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 92395.9 lumens
Efficiency: N/A
Efficacy: 121.6 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B5 - U0 - G5

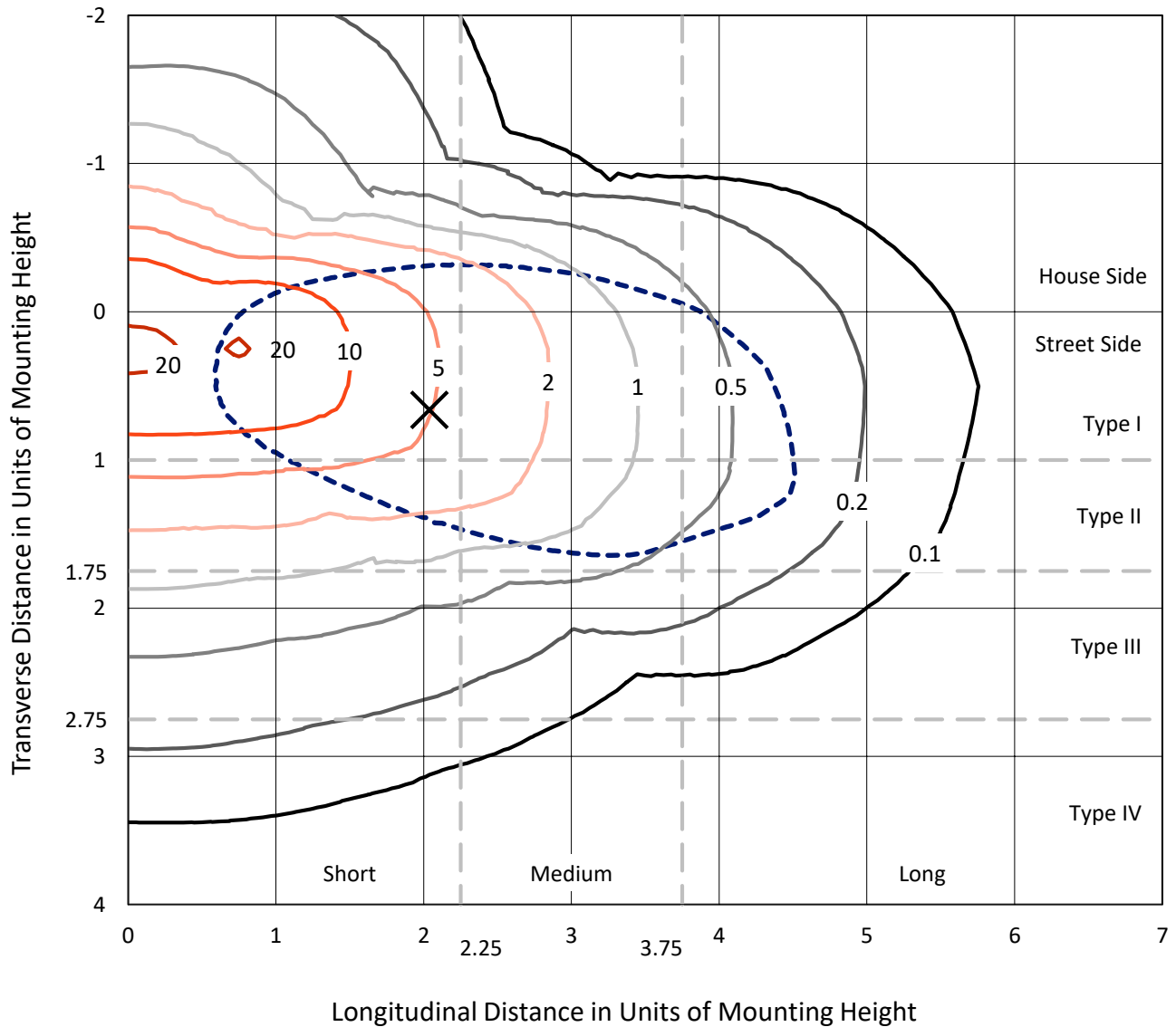
Input Watts (W): 760
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

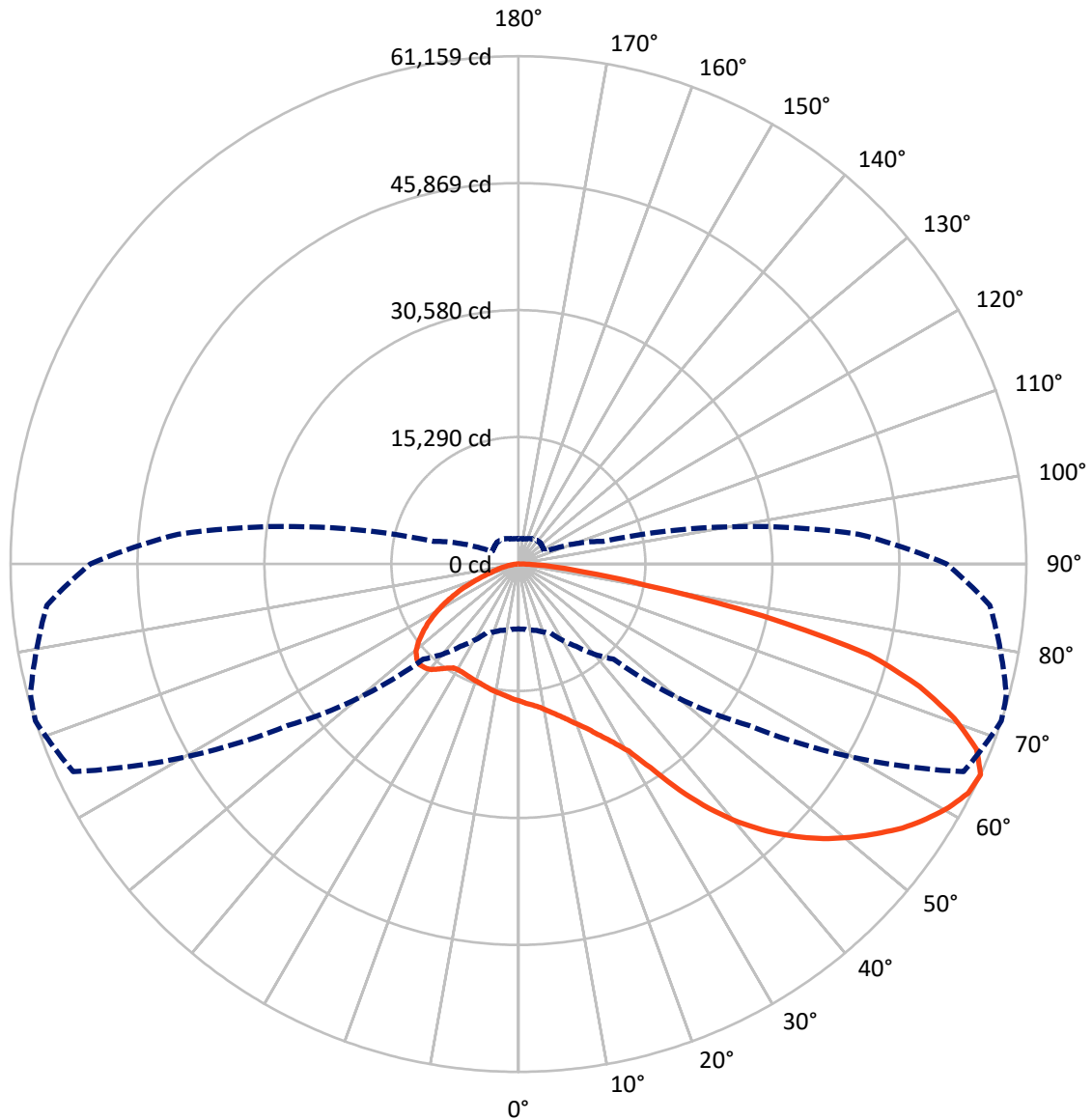
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 21.4 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 72-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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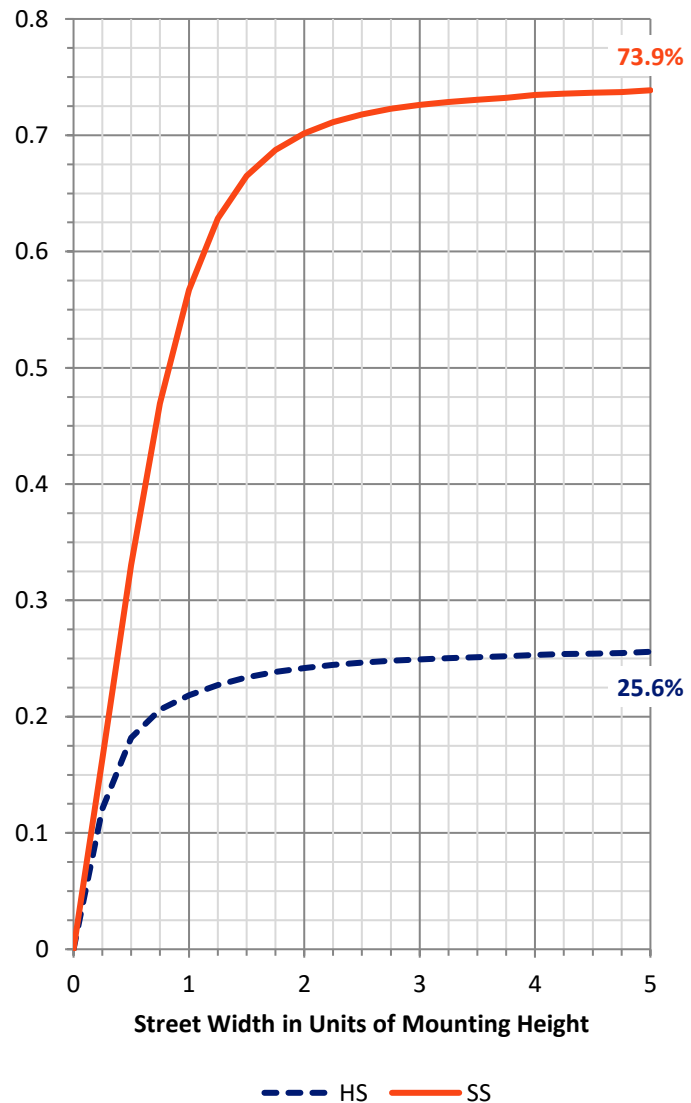
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	24068.3	0.0	24068.3
	% Fixture	26.0	0.0	26.0
Street Side	Lumens	68327.7	0.0	68327.7
	% Fixture	74.0	0.0	74.0
Total	Lumens	92395.9	0.0	92395.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1585.8	1.7
10°-20°	4833.5	5.2
20°-30°	8096.2	8.8
30°-40°	11751.7	12.7
40°-50°	15890.7	17.2
50°-60°	18548.8	20.1
60°-70°	18468.5	20.0
70°-80°	11199.1	12.1
80°-90°	2021.6	2.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	92395.9	100.0
0°-180°	92395.9	100.0



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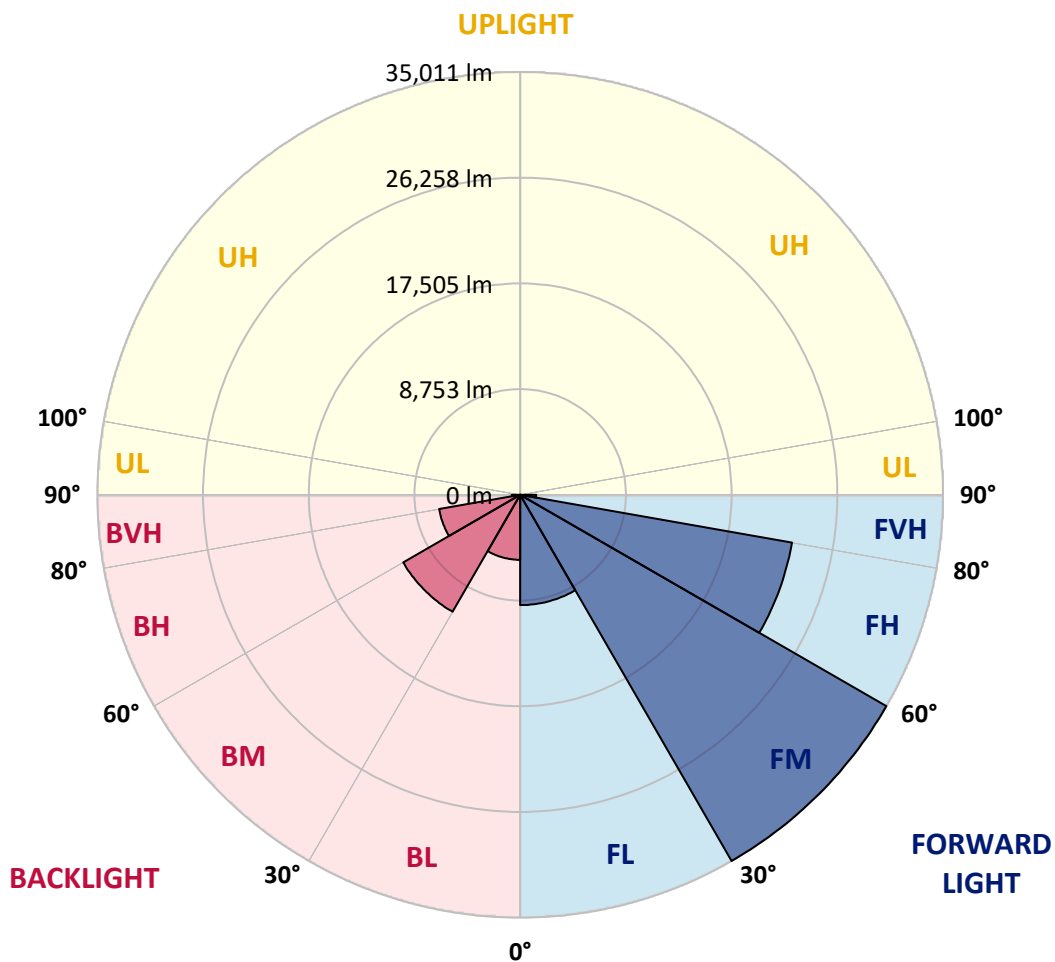
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	9132.0	9.9			
FM	(30°-60°)	35010.9	37.9			
FH	(60°-80°)	22854.9	24.7			G5
FVH	(80°-90°)	1329.8	1.4			G5
BL	(0°-30°)	5383.5	5.8	B5		
BM	(30°-60°)	11180.3	12.1	B5		
BH	(60°-80°)	6812.7	7.4	B5		G5
BVH	(80°-90°)	691.8	0.7			G4/750
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	72°	75°	85°
0°	16492	16492	16492	16492	16492	16492	16492	16492	16492	16492	16492
2.5°	17350	17317	17328	17344	17147	17114	16951	16868	16777	16713	16569
5°	18243	18240	18169	18170	17861	17742	17441	17219	17026	16926	16626
7.5°	19053	18969	18962	18942	18593	18403	18004	17667	17372	17218	16753
10°	19814	19755	19756	19732	19374	19137	18657	18233	17839	17640	16963
12.5°	20626	20559	20548	20464	20135	19907	19382	18861	18384	18159	17281
15°	21459	21395	21363	21266	20899	20656	20216	19572	19029	18749	17699
17.5°	22227	22188	22134	22059	21738	21472	21032	20420	19771	19413	18180
20°	22701	22667	22703	22703	22518	22325	21882	21357	20656	20213	18733
22.5°	23064	23029	23189	23270	23289	23246	22811	22353	21623	21166	19417
25°	23153	23157	23428	23792	24062	24188	23853	23516	22886	22314	20352
27.5°	23127	23153	23500	24150	24797	25103	24982	24786	24287	23800	21601
30°	23089	23157	23615	24414	25350	25956	26077	26374	26129	25797	23582
32.5°	22617	22678	23334	24512	25821	26921	27572	28831	29230	29165	26648
35°	21512	21632	22605	24255	26184	27904	29449	32085	33466	33355	30185
37.5°	20386	20533	21700	23776	26348	28950	31503	35723	37392	37230	33584
40°	19365	19534	20712	23058	26304	29928	33661	39142	40888	40600	36615
42.5°	18185	18430	19503	22101	25961	30617	35796	42409	43990	43550	39373
45°	17086	17283	18314	20790	25438	31124	37749	45436	46811	46298	41914
47.5°	15895	16145	17181	19441	24399	31238	39537	48125	49419	48885	44284
50°	12753	13156	15496	18121	22786	30824	41125	50647	51763	51341	46736
52.5°	11119	11198	12382	16606	20822	29741	42271	53121	53967	53537	48906
55°	10388	10410	10940	14055	18917	27678	42826	55490	56126	55530	50960
57.5°	9637	9760	10293	11861	17126	24701	42441	57562	57941	57270	52846
60°	9016	9116	9648	10713	15161	21240	40647	59213	59547	58862	54616
62.5°	8453	8526	8938	9936	13386	18171	37299	59655	60776	60231	56252
65°	7814	7881	8263	9153	12087	16207	33931	59158	61159	60829	56988
67.5°	7055	7145	7490	8257	10749	14516	29955	57897	59525	59018	55401
70°	6058	6205	6596	7261	9186	12337	23896	53752	55686	55107	51163
72.5°	4776	4808	5091	5644	7275	9814	16127	45483	50534	50370	45258
75°	3561	3670	4124	4550	5315	7041	9803	33150	43629	43629	38142
77.5°	2906	2963	3265	3623	4145	4941	6232	18731	30072	33122	28669
80°	2271	2251	2272	2433	2926	3267	4143	9627	15536	17660	18780
82.5°	1244	1245	1381	1302	1614	1836	2513	5415	8118	9014	10061
85°	630	615	685	639	747	838	1141	2690	4143	4491	4741
87.5°	225	214	246	295	276	293	394	967	1601	1713	1679
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°	16492	16492	16492	16492	16492	16492	16492	16492	16492	16492	16492
2.5°	16528	16432	16316	16219	16014	15907	15822	15846	15754	15621	15619
5°	16517	16334	16085	15879	15549	15379	15219	15177	15040	14908	14901
7.5°	16555	16312	15908	15579	15149	14884	14636	14539	14378	14239	14232
10°	16660	16339	15786	15330	14792	14429	14108	13913	13727	13584	13582
12.5°	16848	16419	15679	15084	14445	13964	13554	13302	13042	12936	12930
15°	17113	16536	15540	14757	14018	13470	12963	12630	12342	12240	12262
17.5°	17453	16727	15428	14396	13547	12886	12359	12024	11600	11506	11532
20°	17875	17022	15404	14066	13031	12244	11597	11360	10823	10697	10680
22.5°	18421	17370	15394	13713	12426	11506	10739	10438	9987	9775	9727
25°	19097	17773	15377	13360	11752	10665	9732	9309	9027	8706	8699
27.5°	19987	18314	15417	13010	11017	9684	8651	8138	7976	7768	7660
30°	21521	19278	15526	12587	10213	8555	7467	7078	6879	6668	6632
32.5°	24096	21364	15863	12129	9318	7334	6498	6091	5761	5652	5623
35°	27321	23841	16729	11639	8350	6367	5700	5163	4848	4822	4820
37.5°	30218	26483	17858	11035	7283	5677	4908	4445	4208	4232	4295
40°	33020	28827	19055	10433	6247	4947	4139	3917	3811	3897	3939
42.5°	35652	30968	19917	9616	5350	4163	3609	3740	3778	3849	3878
45°	38112	33162	20558	8632	4543	3610	3533	3759	3867	3922	3919
47.5°	40492	35259	20750	7331	3919	3549	3603	3732	3901	4002	3995
50°	42867	37167	20589	6009	3793	3667	3670	3649	3846	3928	3897
52.5°	44996	38949	19679	5029	3877	3791	3749	3643	3699	3756	3728
55°	46910	40436	18252	4546	3949	3871	3927	3721	3610	3562	3571
57.5°	48691	41583	16612	4246	3934	3852	3998	3700	3538	3336	3297
60°	50380	42336	14765	3987	3863	3824	3844	3701	3471	3209	3145
62.5°	51574	42376	12645	3756	3726	3781	3723	3672	3489	3290	3250
65°	51550	41131	10548	3491	3555	3666	3566	3397	3120	3061	3041
67.5°	49313	37980	8514	3098	3278	3511	3341	3066	2827	2757	2770
70°	44449	33525	6288	2511	2862	3247	3141	2835	2573	2518	2577
72.5°	38684	28799	4470	1991	2377	2873	2831	2567	2337	2360	2413
75°	32296	22925	3279	1713	1866	2449	2555	2386	2240	2313	2311
77.5°	24070	16930	2497	1437	1545	1906	2252	2188	2586	3143	3161
80°	15817	10992	1685	1180	1264	1430	1838	2108	2648	2295	2267
82.5°	8764	5834	1045	918	949	1037	1332	2201	1945	1805	1812
85°	3886	2259	617	616	618	629	855	1669	1368	1325	1347
87.5°	1346	595	194	154	174	218	445	1018	714	592	594
90°	0	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)