

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: LUMARK

Report Number: P12487

Luminaire Tested: **MPWP-FC-400-XX-SGL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P12487
Test Lab: COOPER LIGHTING INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: MPWP-FC-400-XX-SGL
Description: LUMARK WAL-PAK HID WALL FIXTURE FULL-CUTOFF DOOR WITH OPTIONAL SOLITE GLASS LENS
Light Source: MOGUL BASE CLEAR QUARTZ ED37 400W PULSE START METAL HALIDE LAMP 400 WATTS
Ballast/Driver: -

Summary

Lumens per Lamp: 44000 (1 lamp)
Luminaire Lumens: 19939.1 lumens
Efficiency: 45.3%
Efficacy: 49.8 lumens/watt
Luminous Opening: Rectangular (W 1.15' x L: 0.73' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B4 - U0 - G3

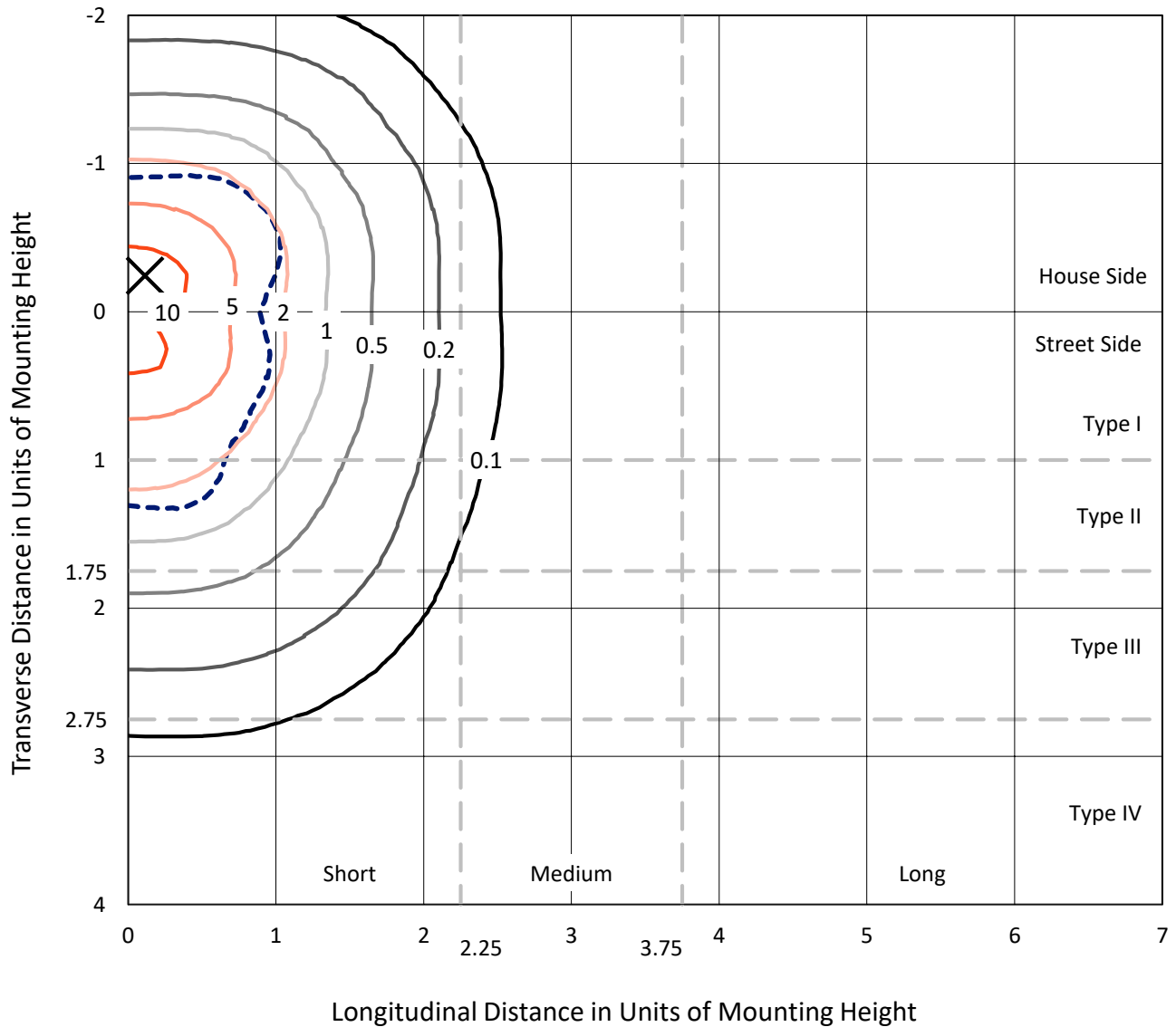
Input Watts (W): 400
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

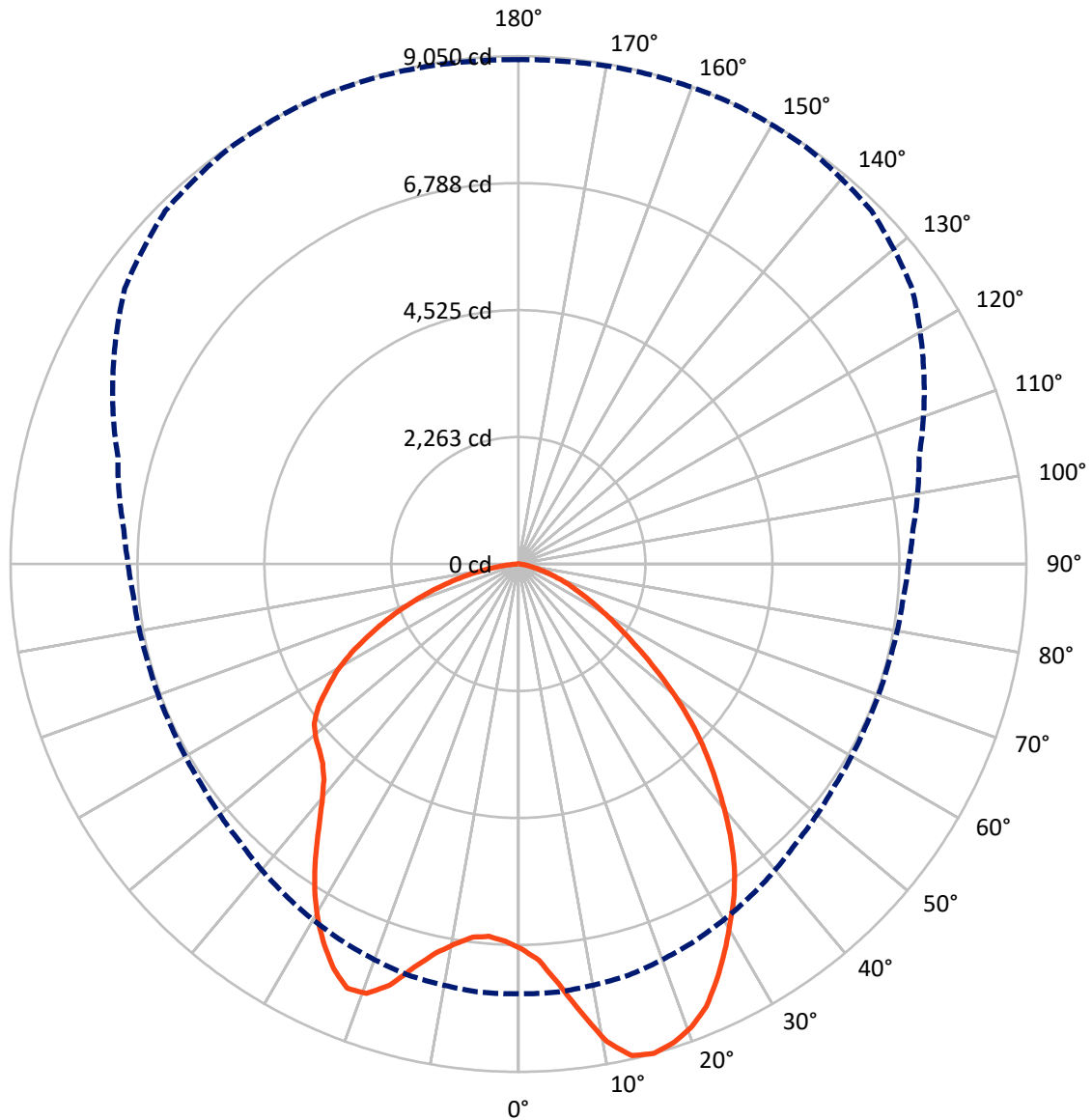
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.2 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 155-Deg Lateral - - - Horizontal Cone Through 15-Deg Vertical

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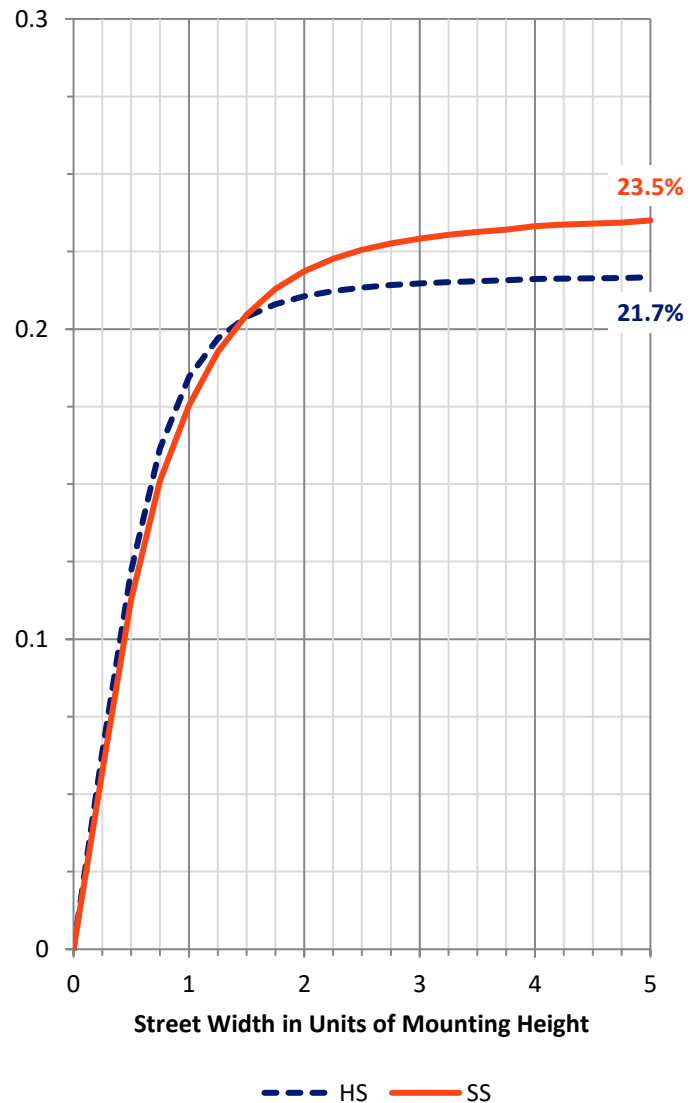
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9591.1	0.0	9591.1
	% Lamp	21.8	0.0	21.8
Street Side	Lumens	10348.0	0.0	10348.0
	% Lamp	23.5	0.0	23.5
Total	Lumens	19939.1	0.0	19939.1
	% Lamp	45.3	0.0	45.3

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	683.5	3.4	1.6
10°-20°	2209.1	11.1	5.0
20°-30°	3557.3	17.8	8.1
30°-40°	4037.0	20.2	9.2
40°-50°	3660.0	18.4	8.3
50°-60°	2888.9	14.5	6.6
60°-70°	1871.2	9.4	4.3
70°-80°	873.8	4.4	2.0
80°-90°	158.2	0.8	0.4
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°	19939.1	100.0	45.3
0°-180°	19939.1	100.0	45.3



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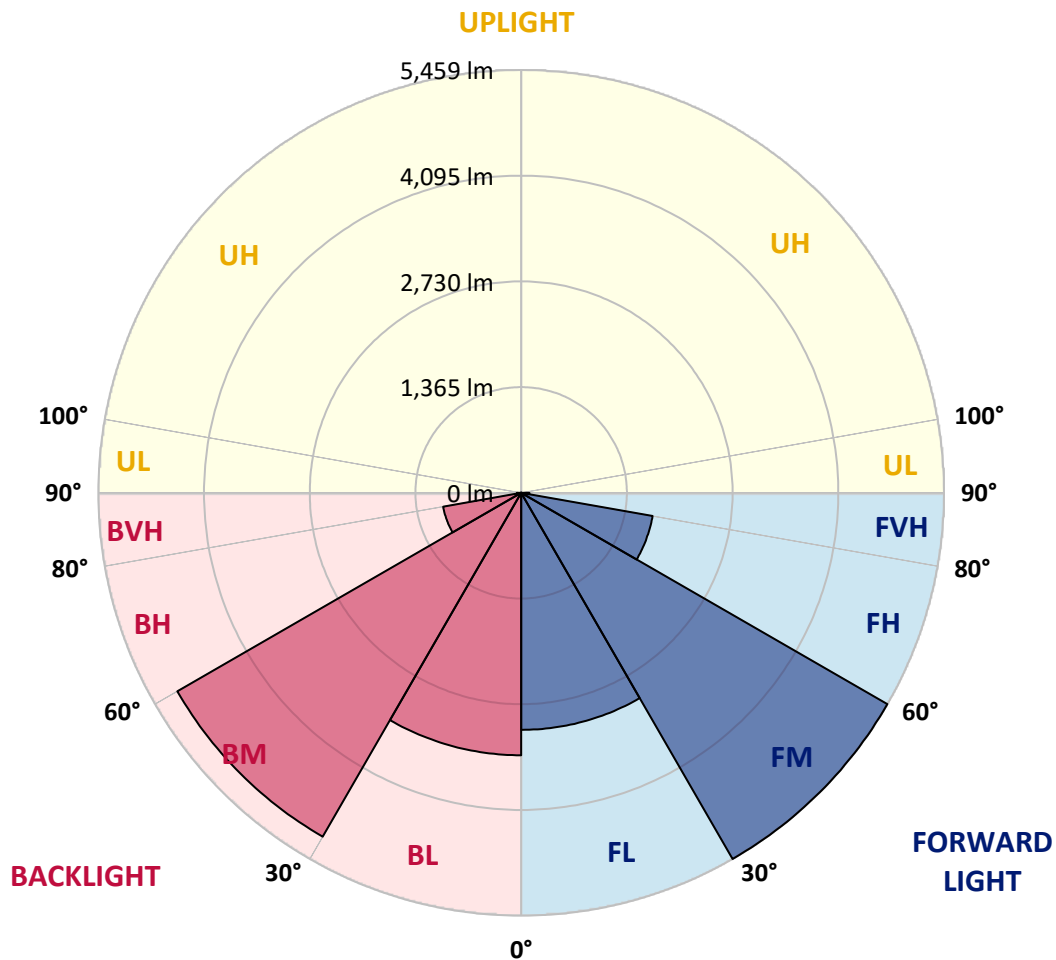
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3060.8	7.0			
FM	(30°-60°)	5459.4	12.4			
FH	(60°-80°)	1722.5	3.9			G1/1800
FVH	(80°-90°)	105.3	0.2			G2/225
BL	(0°-30°)	3389.1	7.7	B4/5000		
BM	(30°-60°)	5126.6	11.7	B4/8500		
BH	(60°-80°)	1022.5	2.3	B3/2500		G3/2500
BVH	(80°-90°)	52.9	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		24060.9	54.7			

BUG Rating: B4-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6857	6857	6857	6857	6857	6857	6857	6857	6857	6857	6857
2.5°	6704	6720	6712	6726	6729	6751	6785	6813	6835	6874	6897
5°	6638	6651	6656	6656	6676	6696	6736	6763	6818	6909	6923
7.5°	6715	6728	6719	6698	6688	6685	6706	6726	6780	6857	6923
10°	6946	6947	6903	6864	6799	6752	6741	6745	6767	6853	6929
12.5°	7247	7257	7190	7085	6970	6856	6797	6775	6788	6864	6945
15°	7658	7661	7585	7419	7220	7012	6881	6830	6828	6883	6954
17.5°	8045	8041	7977	7845	7578	7262	7007	6865	6868	6907	6943
20°	8172	8181	8175	8117	7932	7585	7175	6911	6839	6822	6877
22.5°	8021	8054	8082	8152	8155	7911	7406	6931	6757	6703	6783
25°	7697	7739	7809	7930	8126	8121	7655	6989	6633	6537	6596
27.5°	7351	7385	7486	7619	7890	8105	7830	7014	6467	6318	6384
30°	6969	6993	7111	7262	7538	7862	7781	6973	6248	6056	6111
32.5°	6467	6500	6668	6848	7127	7435	7526	6804	6030	5784	5820
35°	5936	5980	6132	6387	6687	6929	7031	6506	5785	5481	5506
37.5°	5581	5600	5695	5910	6241	6415	6467	6176	5554	5190	5176
40°	5301	5318	5377	5498	5781	5899	5889	5748	5200	4854	4782
42.5°	5143	5148	5155	5178	5299	5403	5317	5226	4833	4480	4387
45°	5031	5053	5047	4976	4941	4925	4799	4713	4473	4086	3978
47.5°	4931	4958	4964	4849	4657	4523	4328	4268	4081	3711	3609
50°	4771	4799	4840	4753	4470	4190	3938	3873	3712	3369	3266
52.5°	4538	4576	4665	4616	4284	3932	3620	3507	3347	3038	2957
55°	4239	4281	4412	4377	4058	3685	3325	3163	2987	2725	2675
57.5°	3855	3884	4104	4060	3801	3409	3024	2825	2638	2403	2372
60°	3443	3479	3699	3745	3486	3079	2708	2481	2320	2115	2085
62.5°	3048	3060	3270	3367	3169	2805	2385	2151	2005	1832	1796
65°	2585	2623	2825	2940	2793	2478	2053	1809	1702	1552	1522
67.5°	2222	2250	2456	2549	2447	2191	1799	1566	1478	1350	1320
70°	1835	1884	2044	2129	2055	1843	1502	1312	1234	1140	1098
72.5°	1501	1517	1673	1735	1685	1501	1217	1065	989	924	899
75°	1159	1177	1290	1353	1304	1164	953	823	772	714	698
77.5°	848	868	955	1004	967	854	700	619	576	538	524
80°	581	587	657	677	655	579	487	421	396	374	369
82.5°	341	354	391	412	401	348	295	265	253	235	243
85°	144	149	167	175	171	150	129	118	115	114	113
87.5°	45	45	39	47	37	27	28	31	29	33	38
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6857	6857	6857	6857	6857	6857	6857	6857	6857	6857
2.5°	6918	6948	6980	7011	7031	7052	7070	7081	7089	7087
5°	6978	7058	7174	7272	7347	7437	7517	7557	7582	7589
7.5°	6986	7143	7330	7527	7721	7911	8070	8164	8210	8204
10°	7008	7231	7521	7857	8180	8466	8656	8760	8804	8804
12.5°	7038	7310	7735	8217	8613	8882	8990	9032	9023	9027
15°	7058	7390	7973	8562	8898	9023	9050	9031	8994	8989
17.5°	7055	7508	8242	8799	8956	9002	8966	8941	8896	8890
20°	7015	7573	8407	8808	8874	8852	8807	8732	8690	8684
22.5°	6898	7617	8428	8708	8721	8653	8569	8460	8374	8358
25°	6770	7551	8274	8507	8517	8385	8207	8044	7940	7919
27.5°	6577	7423	8009	8274	8243	8073	7826	7649	7535	7519
30°	6307	7172	7731	7997	7931	7698	7430	7274	7163	7154
32.5°	6010	6862	7387	7663	7556	7298	7054	6868	6733	6739
35°	5680	6504	6988	7239	7122	6909	6630	6354	6180	6168
37.5°	5333	6070	6643	6827	6715	6518	6129	5801	5610	5591
40°	4911	5597	6201	6358	6268	6038	5603	5238	5031	5017
42.5°	4489	5143	5720	5869	5780	5522	5100	4688	4442	4430
45°	4072	4700	5257	5341	5280	5009	4596	4152	3842	3815
47.5°	3683	4282	4781	4847	4741	4553	4067	3528	3232	3195
50°	3342	3840	4277	4347	4210	4072	3526	2958	2698	2673
52.5°	3024	3459	3801	3859	3722	3576	2979	2467	2222	2206
55°	2723	3081	3347	3341	3276	3052	2484	2049	1850	1815
57.5°	2409	2713	2907	2853	2842	2557	2078	1706	1525	1501
60°	2118	2382	2507	2401	2449	2120	1725	1414	1261	1247
62.5°	1831	2045	2151	2039	2062	1753	1426	1171	1036	1017
65°	1538	1703	1783	1679	1673	1421	1155	929	808	802
67.5°	1334	1475	1510	1429	1374	1187	956	755	652	645
70°	1109	1217	1233	1172	1093	941	730	569	493	482
72.5°	910	986	1001	935	839	719	545	428	371	363
75°	703	764	770	712	605	515	377	300	274	285
77.5°	528	571	576	504	430	340	250	209	199	199
80°	370	391	394	329	271	202	164	145	131	129
82.5°	238	264	241	201	159	118	100	99	85	89
85°	117	124	111	73	56	40	35	44	33	27
87.5°	37	35	39	23	6	13	0	15	3	0
90°	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)