

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: STREETWORKS

Report Number: P214669

Luminaire Tested: **ARCH-AF16-50-D-U-T2R-7050-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214669  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF16-50-D-U-T2R-7050-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4631.9 lumens  
Efficiency: N/A  
Efficacy: 87.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B0 - U0 - G1

Input Watts (W): 53  
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: 28.75 FT

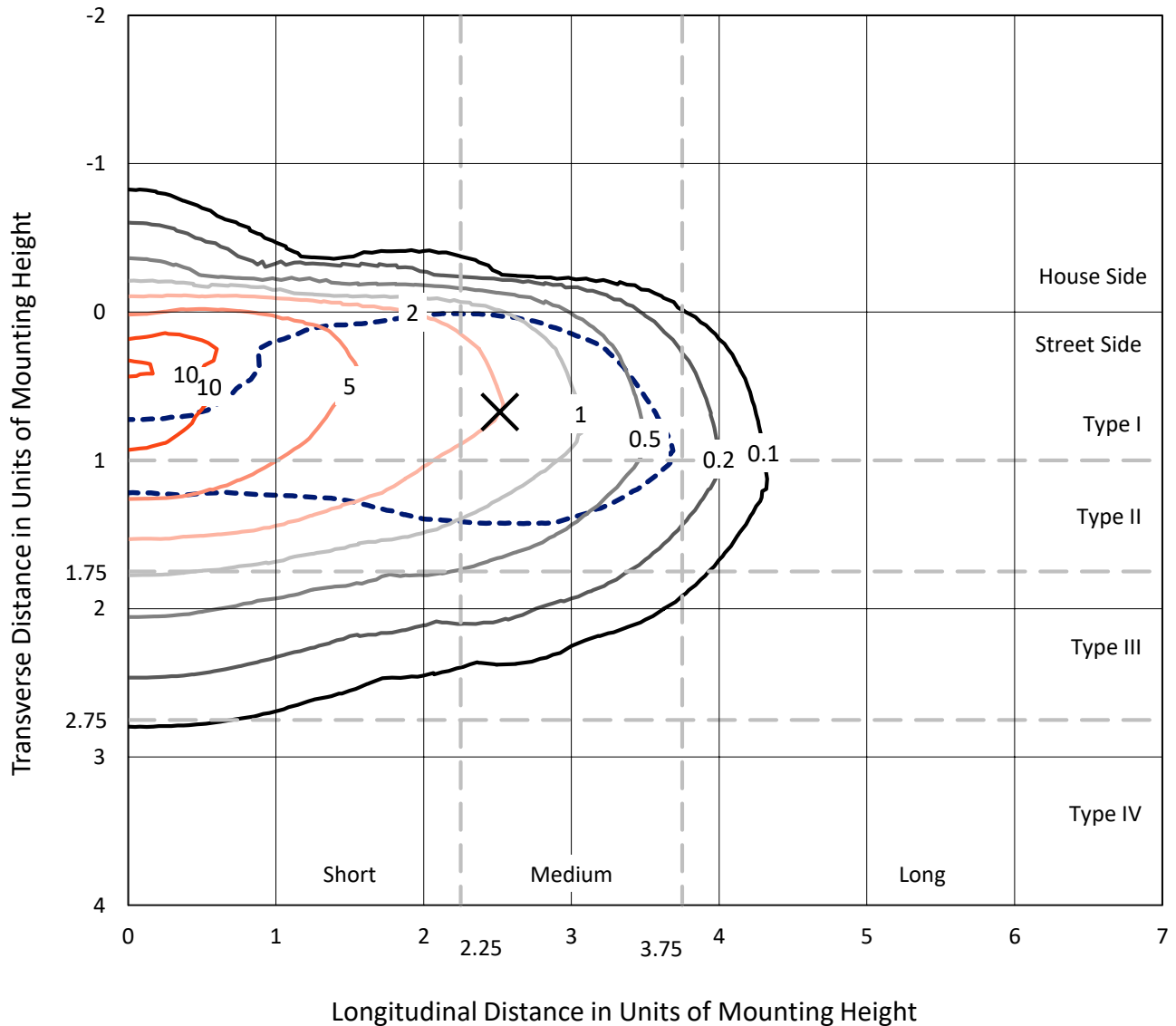


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

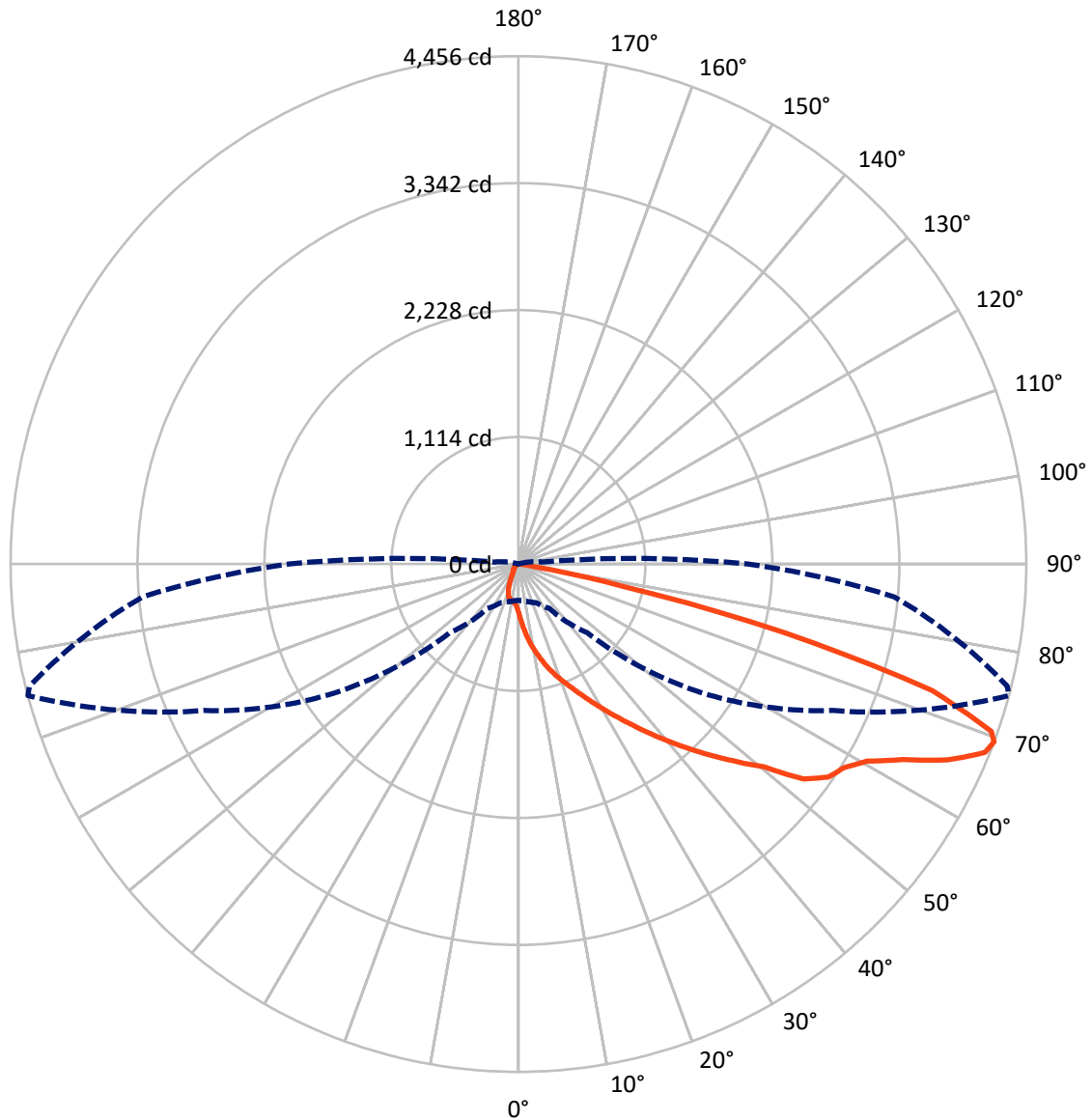


Based on 10 foot mounting height. Maximum calculated value = 11.8 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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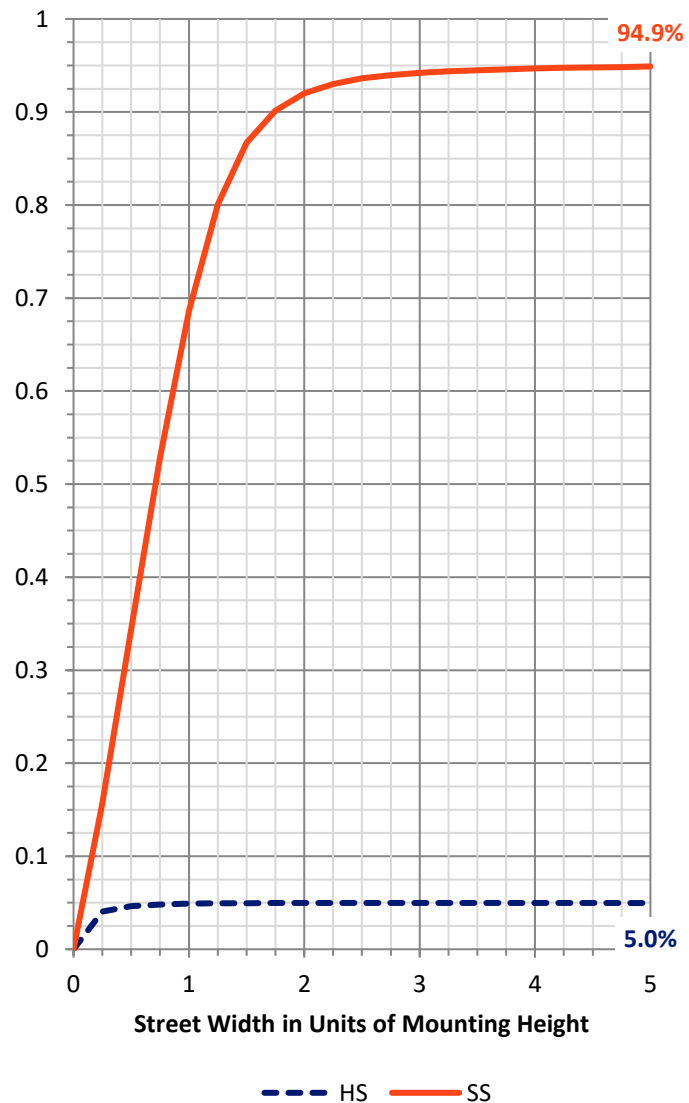
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	231.1	0.0	231.1
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	4400.8	0.0	4400.8
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	4631.9	0.0	4631.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.3	1.1
10°-20°	179.7	3.9
20°-30°	343.0	7.4
30°-40°	615.3	13.3
40°-50°	942.7	20.4
50°-60°	1095.6	23.7
60°-70°	970.2	20.9
70°-80°	418.5	9.0
80°-90°	16.8	0.4
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°	4631.9	100.0
0°-180°	4631.9	100.0

**Coefficient of Utilization**



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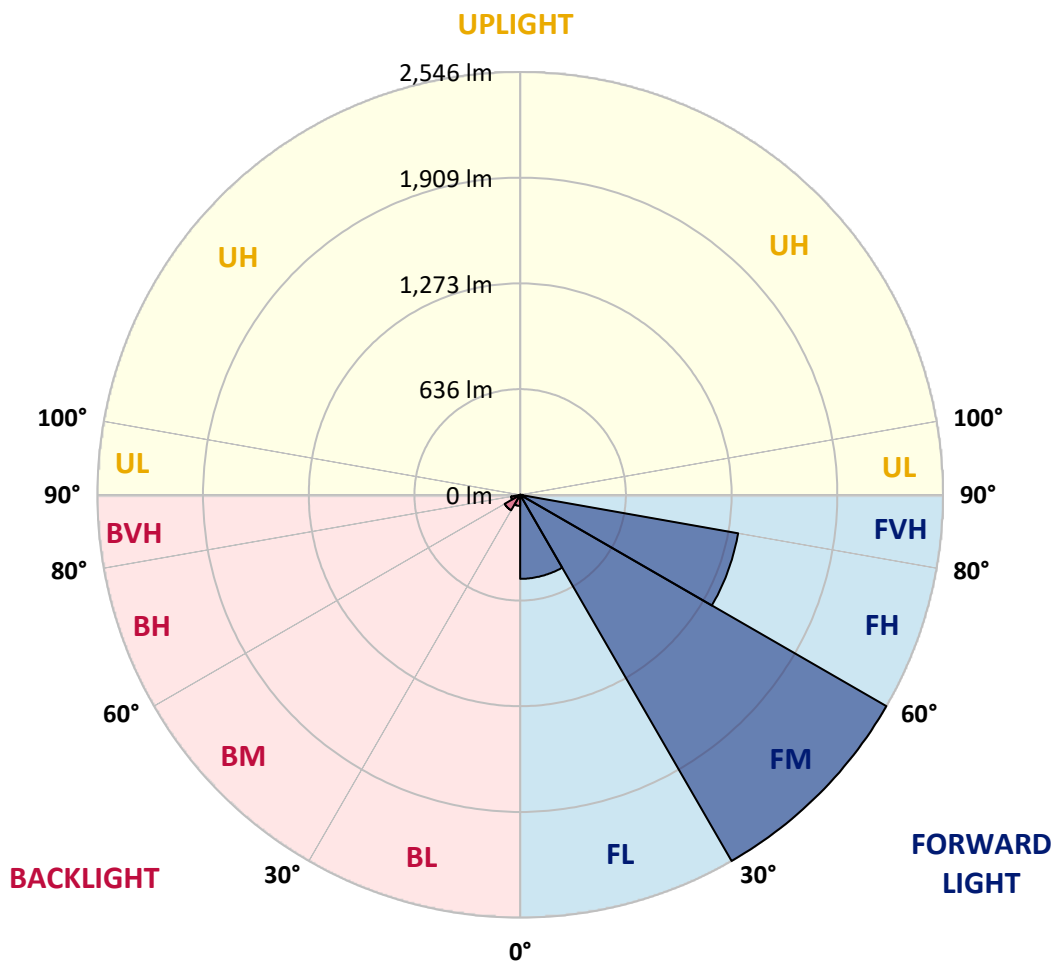
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	505.8	10.9			
FM	(30°-60°)	2545.8	55.0			
FH	(60°-80°)	1332.7	28.8			G1/1800
FVH	(80°-90°)	16.5	0.4			G1/100
BL	(0°-30°)	67.1	1.4	B0/110		
BM	(30°-60°)	107.7	2.3	B0/220		
BH	(60°-80°)	56.0	1.2	B0/110		G0/110
BVH	(80°-90°)	0.2	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	431	431	431	431	431	431	431	431	431	431	431
2.5°	710	703	696	688	670	639	600	558	506	497	455
5°	862	859	852	841	821	787	743	681	594	579	490
7.5°	969	967	961	948	930	896	850	783	682	665	534
10°	1065	1064	1059	1047	1029	992	943	873	766	747	585
12.5°	1152	1153	1151	1145	1132	1097	1041	965	847	826	646
15°	1203	1206	1214	1226	1230	1202	1144	1060	930	912	716
17.5°	1186	1189	1214	1255	1294	1298	1246	1150	1012	994	785
20°	1145	1149	1175	1231	1307	1360	1339	1248	1090	1068	851
22.5°	1191	1191	1199	1233	1302	1385	1413	1346	1170	1143	917
25°	1349	1346	1329	1315	1337	1411	1469	1446	1264	1233	987
27.5°	1549	1563	1531	1480	1430	1462	1519	1545	1368	1336	1059
30°	1773	1779	1741	1673	1585	1554	1578	1630	1481	1446	1134
32.5°	1975	1970	1938	1867	1758	1691	1654	1698	1604	1564	1211
35°	2154	2158	2119	2037	1930	1859	1771	1775	1742	1696	1300
37.5°	2315	2308	2271	2189	2092	2015	1922	1855	1893	1845	1400
40°	2446	2439	2400	2320	2229	2166	2093	1962	2052	1997	1507
42.5°	2550	2542	2509	2432	2344	2288	2253	2094	2222	2167	1627
45°	2601	2594	2574	2516	2439	2390	2407	2246	2404	2358	1759
47.5°	2541	2538	2561	2551	2507	2481	2540	2412	2595	2550	1911
50°	2359	2364	2431	2514	2535	2566	2649	2587	2800	2752	2086
52.5°	1910	1944	2146	2346	2501	2618	2777	2837	3134	3087	2359
55°	1426	1440	1660	2002	2364	2614	2872	2984	3299	3251	2431
57.5°	1131	1136	1245	1594	2082	2524	2922	3037	3371	3331	2538
60°	888	894	973	1213	1685	2281	2850	3083	3512	3480	2725
62.5°	691	697	745	886	1264	1907	2705	3157	3780	3765	3031
65°	535	537	570	636	893	1502	2528	3226	4142	4129	3279
67.5°	395	398	421	462	603	1079	2238	3173	4415	4377	3369
69°	319	322	342	375	476	850	1973	3042	4456	4420	3312
70°	273	275	295	323	406	722	1763	2929	4402	4367	3182
72.5°	175	185	205	223	269	478	1190	2429	3798	3738	2492
75°	97	100	136	158	179	311	662	1515	2416	2374	1333
77.5°	80	82	96	120	120	174	250	597	919	829	361
80°	56	58	73	79	86	98	81	131	142	126	54
82.5°	39	41	50	65	69	46	30	39	41	41	21
85°	7	10	37	54	41	14	17	14	13	14	5
87.5°	0	0	23	26	22	6	7	5	3	4	2
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°	431	431	431	431	431	431	431	431	431	431	431
2.5°	434	413	377	351	329	312	305	294	286	290	285
5°	446	409	351	314	288	266	248	234	223	221	219
7.5°	465	412	336	290	251	217	189	168	152	152	146
10°	491	420	327	266	208	162	134	114	106	105	103
12.5°	527	435	320	235	162	118	101	94	91	90	89
15°	576	457	312	197	123	97	90	84	81	80	79
17.5°	623	477	295	158	100	88	80	75	71	70	70
20°	667	494	266	123	90	79	71	65	61	60	60
22.5°	713	508	230	100	82	70	62	56	52	51	50
25°	762	518	189	89	74	62	53	48	45	44	43
27.5°	815	522	150	81	65	54	46	41	39	38	38
30°	863	518	116	72	57	47	40	36	34	33	33
32.5°	913	508	93	64	50	40	34	31	30	29	29
35°	966	495	80	57	43	35	30	28	27	26	26
37.5°	1028	479	73	51	38	31	26	25	24	24	24
40°	1098	459	68	46	34	27	23	22	21	21	21
42.5°	1172	436	63	41	30	23	20	20	19	19	18
45°	1255	413	58	36	26	20	17	16	16	15	15
47.5°	1353	392	53	32	23	17	15	14	13	12	12
50°	1491	390	47	28	21	14	12	11	10	9	9
52.5°	1628	372	40	23	17	12	9	8	7	7	6
55°	1659	342	35	20	13	9	7	5	5	4	4
57.5°	1727	328	30	16	10	7	4	3	3	3	3
60°	1861	324	26	14	7	5	3	2	2	1	1
62.5°	2046	320	22	12	5	3	2	1	0	0	0
65°	2148	293	18	9	4	3	1	0	0	0	0
67.5°	2121	242	16	6	3	2	1	0	0	0	0
69°	2008	204	13	5	3	2	1	0	0	0	0
70°	1872	176	12	4	2	1	1	0	0	0	0
72.5°	1329	92	8	3	2	1	0	0	0	0	0
75°	621	41	5	2	1	1	0	0	0	0	0
77.5°	137	19	3	2	1	0	0	0	0	0	0
80°	26	7	2	1	1	0	0	0	0	0	0
82.5°	9	3	1	1	0	0	0	0	0	0	0
85°	3	1	0	0	0	0	0	0	0	0	0
87.5°	1	0	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)