

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: P23469

Luminaire Tested: **MQSB81207LEDEUSN**

Test Date: 03/26/13



Test Information

Test Method: LM-79-08
Report Number: P23469
Test Lab: INNOVATION CENTER P2
Test Date: 03/26/13
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: MQSB81207LEDEUSN
Description: STREETWORKS SIGNLIGHTER FIXTURE STANDARD NARROW OPTIC DIST
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19690.9 lumens
Efficiency: N/A
Efficacy: 75.4 lumens/watt
Luminous Opening: Rectangular (W 1.62' x L: 2' x H: 0')
IES Classification: Type - Short - Non-Cutoff
BUG Rating: B0 - U5 - G2

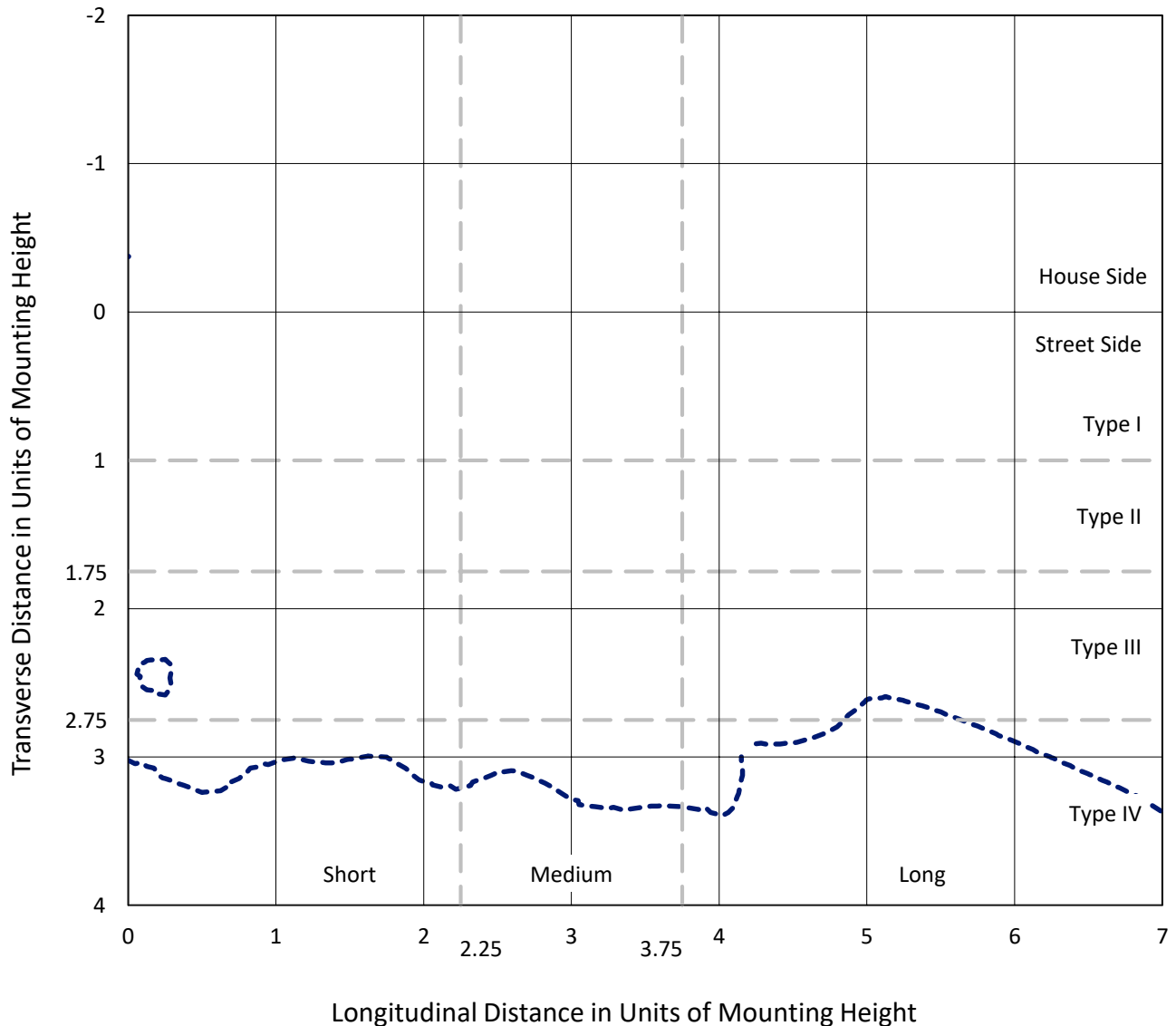
Input Watts (W): 261
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

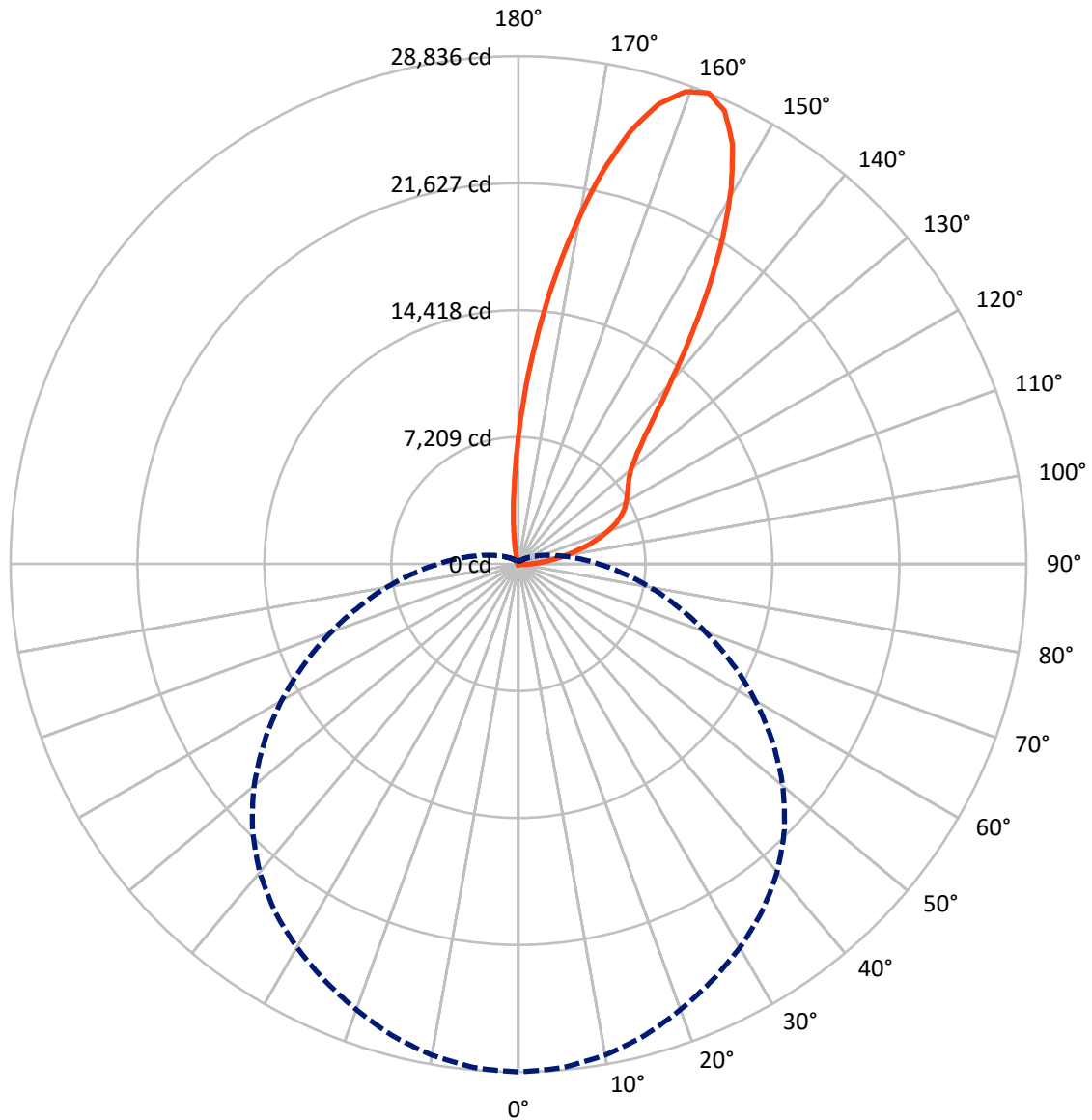


Based on 25 foot mounting height. Maximum calculated value = 0.1 fc
 Type - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 157.5-Deg Vertical



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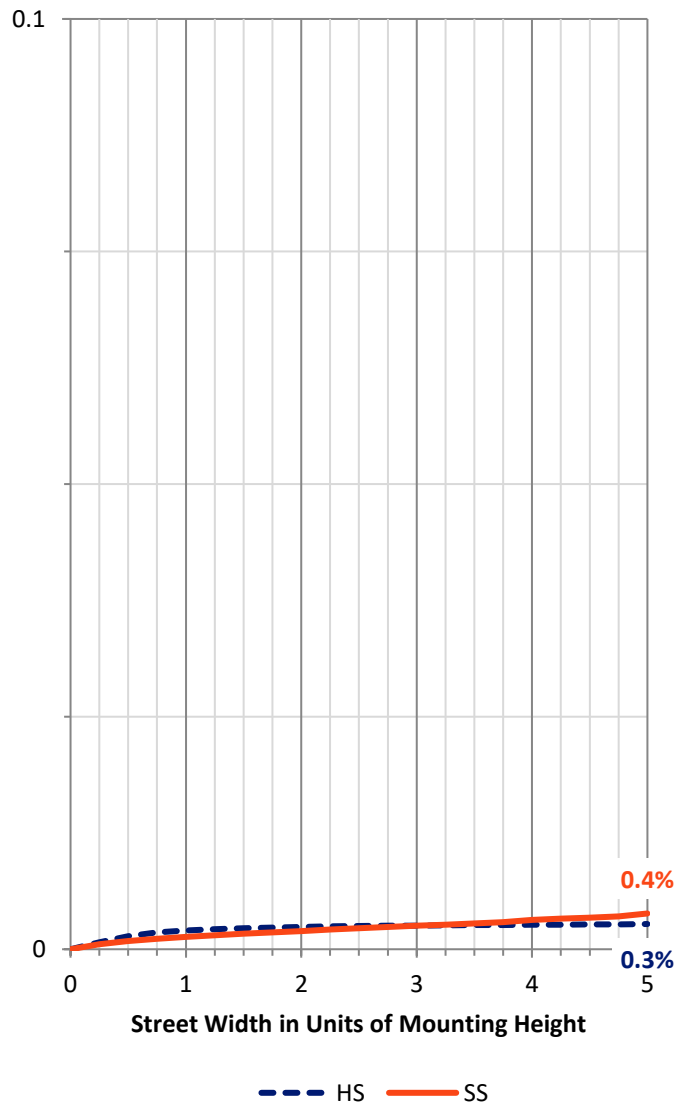
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	57.3	755.9	813.2
	% Fixture	0.3	3.8	4.1
Street Side	Lumens	181.4	18696.3	18877.7
	% Fixture	0.9	94.9	95.9
Total	Lumens	238.7	19452.2	19690.9
	% Fixture	1.2	98.8	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.5	0.0
10°-20°	8.5	0.0
20°-30°	10.8	0.1
30°-40°	12.2	0.1
40°-50°	11.0	0.1
50°-60°	14.1	0.1
60°-70°	20.8	0.1
70°-80°	32.5	0.2
80°-90°	126.4	0.6
90°-100°	466.5	2.4
100°-110°	1033.3	5.2
110°-120°	1472.4	7.5
120°-130°	1776.2	9.0
130°-140°	2654.3	13.5
140°-150°	4151.4	21.1
150°-160°	4438.8	22.5
160°-170°	2731.4	13.9
170°-180°	727.9	3.7
0°-90°	238.7	1.2
0°-180°	19690.9	100.0



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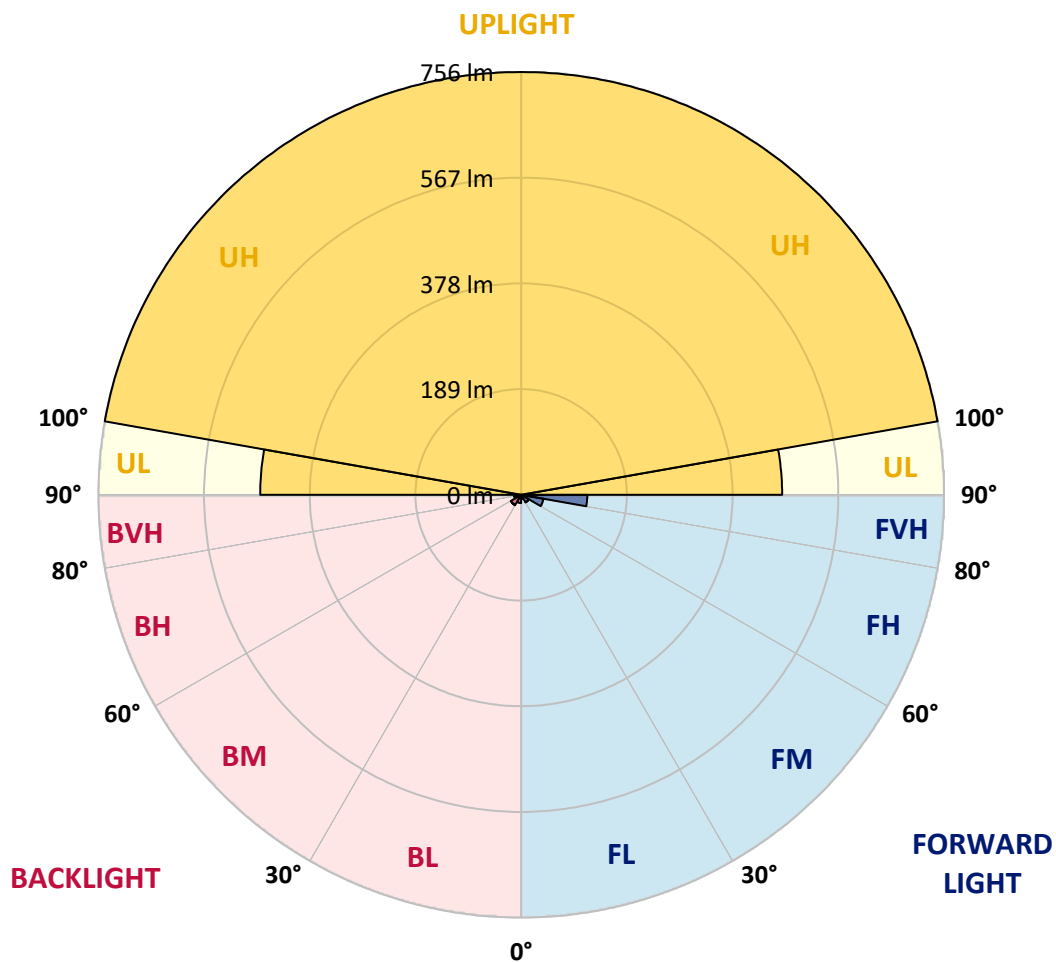
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	7.1	0.0			
FM (30°-60°)	15.7	0.1			
FH (60°-80°)	40.3	0.2			G0/660
FVH (80°-90°)	118.2	0.6			G2/225
BL (0°-30°)	14.7	0.1	B0/110		
BM (30°-60°)	21.5	0.1	B0/220		
BH (60°-80°)	12.9	0.1	B0/110		G0/110
BVH (80°-90°)	8.2	0.0			G0/10
UL (90°-100°)	466.5	2.4		U3/500	
UH (100°-180°)	755.9	3.8		U4/1000	

BUG Rating: B0-U5-G2

Type Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	19	19	19	19	19	19	19	19	19	19	19
2.5°	8	18	8	24	10	16	24	6	16	24	18
5°	8	8	4	14	4	16	6	6	28	22	14
7.5°	4	8	12	8	16	16	26	16	22	22	20
10°	0	2	2	10	4	8	16	8	12	14	12
12.5°	8	0	0	2	2	12	10	12	16	20	10
15°	4	4	2	0	0	12	16	4	20	12	12
17.5°	4	18	12	16	14	16	22	16	26	18	22
20°	8	10	6	10	16	14	22	20	18	24	18
22.5°	12	12	14	16	8	16	8	22	18	32	26
25°	0	0	4	0	4	6	12	4	10	18	8
27.5°	0	0	0	0	0	2	0	4	12	8	4
30°	0	10	8	12	4	4	10	12	16	12	12
32.5°	0	20	8	10	14	12	12	22	18	24	14
35°	0	6	6	8	8	8	10	10	22	22	12
37.5°	0	0	0	2	0	0	0	8	0	2	2
40°	0	0	0	0	0	0	0	8	0	4	4
42.5°	0	10	8	4	4	16	12	18	14	20	8
45°	4	10	4	8	2	8	12	12	14	16	10
47.5°	0	4	0	0	2	10	8	8	10	14	6
50°	0	2	0	0	0	10	10	4	18	12	2
52.5°	0	2	0	10	4	4	18	8	16	14	20
55°	0	0	0	2	0	10	6	12	14	14	8
57.5°	8	6	4	14	14	28	14	30	28	22	22
60°	0	2	0	16	20	26	26	20	24	20	20
62.5°	0	2	4	12	12	22	18	18	14	18	8
65°	16	38	18	28	26	28	32	34	24	24	24
67.5°	53	61	41	43	45	43	51	41	43	38	45
70°	41	47	43	47	36	36	34	34	28	26	34
72.5°	57	51	47	49	51	38	41	38	34	20	22
75°	61	75	63	83	79	77	61	38	45	41	34
77.5°	105	99	107	103	105	107	97	85	61	43	38
80°	134	150	160	172	170	166	148	118	99	79	57
82.5°	199	209	229	249	261	249	221	182	140	103	71
85°	308	326	353	387	395	381	344	276	211	138	103
87.5°	494	521	553	598	614	585	517	417	310	221	146
90°	750	784	825	891	899	867	772	608	464	314	215
92.5°	1090	1122	1181	1262	1254	1207	1090	871	667	460	312
95°	1564	1594	1633	1714	1700	1635	1495	1224	946	656	427
97.5°	2103	2121	2160	2228	2184	2095	1937	1623	1270	891	598
100°	2743	2753	2751	2745	2690	2575	2393	2058	1641	1177	786
102.5°	3444	3438	3381	3306	3189	3027	2836	2510	2068	1542	1029
105°	4177	4117	3979	3801	3618	3426	3209	2927	2504	1951	1333
107.5°	4862	4767	4544	4264	4029	3782	3535	3276	2883	2324	1667
110°	5510	5381	5071	4694	4378	4096	3813	3543	3173	2688	2008



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	6049	5920	5559	5111	4747	4380	4080	3760	3401	2980	2346
115°	6495	6390	6023	5529	5065	4657	4309	3971	3594	3217	2640
117.5°	6860	6775	6426	5907	5334	4897	4518	4167	3770	3408	2885
120°	7123	7064	6777	6201	5571	5085	4720	4370	3957	3588	3110
122.5°	7382	7354	7099	6535	5895	5393	5032	4700	4275	3863	3381
125°	7650	7648	7445	6945	6329	5830	5478	5125	4682	4212	3715
127.5°	7970	7994	7875	7465	6941	6463	6134	5764	5281	4751	4196
130°	8444	8513	8495	8191	7798	7374	7103	6742	6185	5553	4846
132.5°	9218	9301	9390	9238	8971	8628	8428	8045	7421	6649	5784
135°	10283	10415	10603	10640	10512	10245	10087	9649	8965	8095	7010
137.5°	11847	12015	12232	12467	12415	12293	12169	11669	10895	9870	8626
140°	13825	14015	14289	14596	14765	14572	14438	13891	13043	11876	10429
142.5°	16308	16444	16667	16951	17013	16928	16752	16177	15233	13966	12332
145°	19092	19171	19313	19450	19560	19299	19039	18431	17433	16037	14268
147.5°	21912	21967	21963	21971	21914	21547	21219	20504	19475	17953	16055
150°	24529	24564	24406	24236	24011	23500	23002	22214	21069	19542	17554
152.5°	26762	26715	26460	26065	25583	25003	24302	23441	22208	20660	18713
155°	28241	28105	27773	27250	26634	25838	25022	24067	22803	21278	19404
157.5°	28836	28701	28316	27716	26924	26067	25145	24096	22846	21353	19594
160°	28447	28364	27961	27315	26511	25658	24625	23529	22301	20903	19254
162.5°	27321	27195	26770	26164	25471	24580	23547	22451	21280	19949	18454
165°	25360	25232	24817	24238	23539	22872	21859	20854	19777	18600	17289
167.5°	22653	22536	22157	21659	21055	20536	19623	18743	17826	16805	15731
170°	19400	19345	19005	18604	18101	17739	16995	16286	15589	14781	13912
172.5°	16065	16008	15711	15393	15006	14811	14264	13729	13257	12672	12036
175°	12654	12619	12400	12176	11910	11868	11485	11154	10857	10496	10101
177.5°	9509	9465	9345	9187	9167	9118	8877	8730	8608	8438	8280
180°	6643	6643	6643	6643	6643	6643	6643	6643	6643	6643	6643



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	19	19	19	19	19	19	19	19	19	19	19
2.5°	28	24	28	38	30	34	38	28	36	47	32
5°	20	28	24	20	28	30	34	20	32	38	41
7.5°	32	26	30	43	34	28	43	38	43	49	45
10°	20	18	24	30	34	24	34	36	32	41	43
12.5°	24	30	20	36	32	26	32	34	38	41	34
15°	20	22	14	24	26	10	30	32	43	28	32
17.5°	28	24	28	47	53	32	32	49	47	53	47
20°	28	36	26	41	38	36	34	43	43	53	41
22.5°	30	20	30	36	41	22	30	34	34	47	47
25°	12	10	16	24	20	22	18	24	24	28	30
27.5°	10	12	12	16	16	14	16	20	26	30	20
30°	18	18	28	28	24	28	16	30	30	41	34
32.5°	34	26	24	47	36	32	34	43	45	32	51
35°	20	32	28	34	24	24	30	43	28	41	28
37.5°	2	8	8	8	2	10	12	16	22	10	18
40°	0	12	20	6	10	10	18	18	24	12	20
42.5°	20	22	28	30	22	22	20	26	32	28	36
45°	12	16	22	14	14	24	14	18	20	12	22
47.5°	12	14	14	18	20	12	8	16	16	20	14
50°	14	14	28	22	20	14	22	26	20	22	18
52.5°	10	26	28	28	30	14	16	22	16	26	20
55°	14	16	18	18	22	10	16	18	18	24	18
57.5°	28	26	36	26	28	22	22	30	34	28	32
60°	26	26	32	22	32	14	20	24	24	20	26
62.5°	16	20	14	24	18	8	10	18	18	28	16
65°	30	30	22	30	28	12	20	22	22	20	24
67.5°	32	49	43	43	38	20	32	32	32	38	32
70°	26	22	32	30	26	10	14	22	24	16	24
72.5°	16	26	28	22	18	10	10	12	10	16	16
75°	32	38	30	30	22	14	14	16	22	14	4
77.5°	49	38	47	38	30	24	28	14	22	26	20
80°	55	53	51	43	51	26	26	20	24	28	20
82.5°	65	59	51	41	38	26	30	24	28	24	18
85°	79	63	45	41	32	38	22	28	24	28	20
87.5°	105	69	73	61	59	45	47	32	43	34	32
90°	132	95	85	67	63	55	38	38	49	45	30
92.5°	186	117	87	73	65	45	45	38	47	36	43
95°	255	150	111	97	63	49	59	57	45	49	38
97.5°	355	205	128	93	69	53	47	49	41	51	43
100°	472	278	152	107	69	53	43	45	43	43	49
102.5°	634	371	209	113	85	69	61	49	65	43	43
105°	831	496	280	158	113	83	79	79	59	57	53
107.5°	1041	636	367	199	132	99	85	81	75	77	63
110°	1286	784	458	251	142	99	93	81	77	73	63



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	1554	960	569	314	194	122	93	83	77	81	69
115°	1839	1153	675	379	219	134	103	83	79	89	63
117.5°	2119	1355	812	468	265	162	124	105	93	85	85
120°	2370	1552	914	539	292	168	113	95	87	71	69
122.5°	2656	1827	1106	654	385	231	158	136	107	97	85
125°	2964	2105	1315	774	460	247	170	136	107	107	83
127.5°	3375	2443	1586	936	543	302	182	150	120	103	85
130°	3920	2921	1941	1205	709	403	253	170	138	111	99
132.5°	4662	3541	2441	1556	960	571	342	225	178	150	130
135°	5664	4307	3063	2020	1270	766	442	278	197	156	128
137.5°	7052	5442	3916	2642	1756	1110	669	432	282	215	174
140°	8675	6835	5010	3474	2338	1538	972	612	403	271	207
142.5°	10417	8393	6353	4506	3100	2052	1361	875	561	377	267
145°	12163	10010	7820	5751	4066	2796	1858	1238	829	549	371
147.5°	13873	11612	9238	7105	5221	3703	2502	1692	1159	784	531
150°	15354	13051	10682	8403	6408	4722	3286	2277	1586	1088	768
152.5°	16523	14242	11857	9591	7557	5768	4202	2978	2111	1493	1064
155°	17303	15079	12806	10577	8537	6746	5103	3778	2741	1965	1438
157.5°	17613	15543	13399	11315	9351	7567	5920	4560	3450	2549	1906
160°	17463	15543	13622	11708	9894	8221	6623	5241	4102	3134	2411
162.5°	16865	15154	13488	11815	10180	8642	7170	5857	4737	3740	2966
165°	15950	14449	13022	11610	10178	8847	7524	6347	5296	4319	3535
167.5°	14631	13399	12210	11071	9905	8768	7668	6657	5699	4820	4078
170°	13012	12097	11177	10281	9347	8468	7573	6775	5964	5233	4572
172.5°	11481	10735	10079	9430	8756	8106	7431	6823	6197	5616	5093
175°	9785	9315	8912	8527	8087	7676	7212	6811	6367	5938	5559
177.5°	8164	7927	7743	7597	7370	7174	6943	6730	6493	6266	6065
180°	6643	6643	6643	6643	6643	6643	6643	6643	6643	6643	6643



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	19	19	19	19	19	19	19	19	19	19	19
2.5°	38	43	32	45	36	22	20	30	22	22	16
5°	36	45	30	28	24	32	22	26	16	20	4
7.5°	45	55	32	55	38	47	32	32	26	32	26
10°	36	38	34	45	41	41	32	41	30	20	20
12.5°	43	36	32	47	36	36	28	36	34	30	34
15°	51	43	36	49	38	43	36	45	41	26	34
17.5°	53	47	45	57	32	45	41	49	45	36	45
20°	49	61	45	53	38	51	45	45	47	34	41
22.5°	57	49	41	49	49	45	41	47	45	43	41
25°	34	36	26	30	22	28	20	32	22	22	18
27.5°	28	26	28	26	22	36	24	24	16	14	12
30°	32	38	34	30	30	38	28	32	34	20	22
32.5°	47	53	43	49	47	47	34	32	43	32	30
35°	45	43	28	34	30	36	22	32	30	32	28
37.5°	18	14	8	20	8	16	10	18	6	8	0
40°	20	16	10	22	18	16	8	14	8	6	0
42.5°	28	36	20	32	30	24	18	26	20	14	6
45°	32	26	28	36	24	16	14	20	16	8	6
47.5°	22	20	16	20	26	14	12	18	4	4	4
50°	24	22	18	30	16	16	12	14	12	6	8
52.5°	24	28	18	28	10	16	12	12	8	6	6
55°	14	20	18	20	12	12	12	12	2	4	4
57.5°	30	26	30	24	16	16	18	18	10	6	10
60°	24	24	16	28	18	18	16	20	12	6	6
62.5°	22	22	10	18	18	4	4	10	4	4	2
65°	26	24	16	18	10	2	6	12	8	2	4
67.5°	34	32	32	32	16	22	16	26	22	10	10
70°	16	20	6	20	10	8	8	10	4	8	0
72.5°	14	14	8	20	8	6	4	8	8	2	0
75°	14	14	6	20	10	8	8	4	10	0	6
77.5°	20	16	10	22	4	8	12	10	10	6	2
80°	24	22	18	24	16	10	12	12	8	14	6
82.5°	24	20	16	24	12	10	12	10	10	10	12
85°	28	16	8	16	4	4	8	14	4	4	4
87.5°	30	24	14	18	12	18	10	8	6	6	12
90°	28	26	14	18	16	22	22	12	14	10	14
92.5°	36	30	28	28	10	22	12	12	22	14	8
95°	30	32	20	30	16	20	16	12	18	6	6
97.5°	32	24	18	24	10	18	8	8	6	12	8
100°	32	26	16	20	10	12	2	2	4	0	0
102.5°	34	28	12	20	18	18	10	4	2	0	2
105°	47	38	32	34	22	22	20	14	4	2	8
107.5°	49	43	41	36	24	28	12	18	16	12	8
110°	51	49	45	45	24	26	12	12	4	8	8



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REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°	
112.5°	55	51	45	38	18	22	14	16	14	16	4	0°
115°	63	55	45	45	28	30	22	22	16	0	2	2.5°
117.5°	69	57	49	47	20	34	26	20	10	10	8	5°
120°	59	47	32	32	24	10	8	8	4	0	0	7.5°
122.5°	77	63	57	53	34	32	30	20	16	2	2	10°
125°	79	61	53	53	28	36	22	20	8	4	4	12.5°
127.5°	79	69	49	53	32	24	18	8	12	4	0	15°
130°	87	81	53	53	38	45	22	16	16	4	2	17.5°
132.5°	120	95	85	79	73	55	47	32	30	30	18	20°
135°	109	85	73	59	53	45	26	24	12	16	6	22.5°
137.5°	148	132	111	103	87	81	71	53	51	47	32	25°
140°	164	136	122	113	95	85	79	63	63	59	36	27.5°
142.5°	190	158	126	111	95	91	67	71	63	55	43	30°
145°	265	197	158	148	115	111	85	79	79	71	49	32.5°
147.5°	369	267	203	190	154	132	124	105	97	93	71	35°
150°	533	373	269	225	182	156	144	130	115	103	97	37.5°
152.5°	756	517	375	304	225	203	168	146	138	130	115	40°
155°	1045	746	539	417	318	271	225	176	168	154	138	42.5°
157.5°	1424	1051	772	602	472	367	300	257	229	209	178	45°
160°	1846	1390	1055	825	654	508	417	334	290	263	227	47.5°
162.5°	2340	1815	1430	1151	914	739	594	486	409	363	322	50°
165°	2877	2322	1868	1536	1278	1060	879	754	636	561	498	52.5°
167.5°	3422	2861	2411	2064	1775	1491	1301	1137	999	889	800	55°
170°	3989	3446	2998	2666	2348	2083	1854	1686	1493	1372	1266	57.5°
172.5°	4607	4133	3730	3434	3132	2869	2632	2447	2255	2125	2008	60°
175°	5202	4830	4520	4295	4034	3823	3614	3456	3266	3160	3106	62.5°
177.5°	5863	5654	5460	5354	5198	5069	4947	4848	4694	4637	4619	65°
180°	6643	6643	6643	6643	6643	6643	6643	6643	6643	6643	6643	67.5°
												70°
												72.5°
												75°
												77.5°
												80°
												82.5°
												85°
												87.5°
												90°
												92.5°
												95°
												97.5°
												100°
												102.5°
												105°
												107.5°
												110°



NUMBER: P23469
 NUMBER: MQSB81207LEDEUSN

REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):

165°	170°	175°	180°
19	19	19	19
10	18	16	24
18	16	30	12
32	34	30	32
18	28	28	41
30	28	45	36
24	32	34	45
41	47	49	45
47	34	47	53
41	34	34	49
30	32	22	32
10	30	20	24
24	28	34	36
34	24	38	36
22	18	32	36
2	0	8	4
0	0	10	4
0	10	22	28
8	8	14	16
0	0	4	8
12	2	8	12
8	6	26	12
0	0	12	4
14	8	16	4
6	0	2	8
8	0	0	0
0	4	0	12
12	14	16	20
8	0	2	0
0	0	0	8
0	0	0	8
2	0	12	16
6	4	2	16
2	0	2	0
2	2	4	0
12	6	4	12
4	8	6	16
6	0	6	8
10	8	12	4
2	6	2	0
2	0	0	0
0	0	6	0
0	0	2	0
8	6	8	8
4	0	8	8

CANDELA DISTRIBUTION:

	165°
112.5°	4
115°	8
117.5°	4
120°	0
122.5°	14
125°	2
127.5°	4
130°	0
132.5°	38
135°	16
137.5°	51
140°	43
142.5°	38
145°	53
147.5°	73
150°	89
152.5°	101
155°	136
157.5°	176
160°	209
162.5°	294
165°	454
167.5°	756
170°	1203
172.5°	1959
175°	3006
177.5°	4538
180°	6643



'23469
MQSB81207LEDEUSN

TION (continued):

170°	175°	180°
2	6	0
4	4	0
6	2	12
0	0	0
0	0	8
0	0	0
0	0	0
4	0	0
16	14	12
10	8	0
34	36	41
41	38	41
34	38	36
55	53	45
77	71	81
89	83	105
113	103	113
130	128	142
174	182	170
207	205	203
288	271	267
454	411	417
719	697	705
1175	1120	1126
1921	1835	1856
2982	2887	2913
4514	4408	4477
6643	6643	6643

(END OF REPORT)