

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: CORELITE

Report Number: P257071

Luminaire Tested: **HGL-S-UF-60L940-UNV-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257071
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1708-204-13)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: HGL-S-UF-60L940-UNV-4
Description: HUGO 4 FOOT LINEAR LED LUMINAIRE WITH FROSTED LENS WITH UPLIGHT
Light Source: (168) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4659.2 lumens
Efficiency: N/A
Efficacy: 97.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.32 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 0.23' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

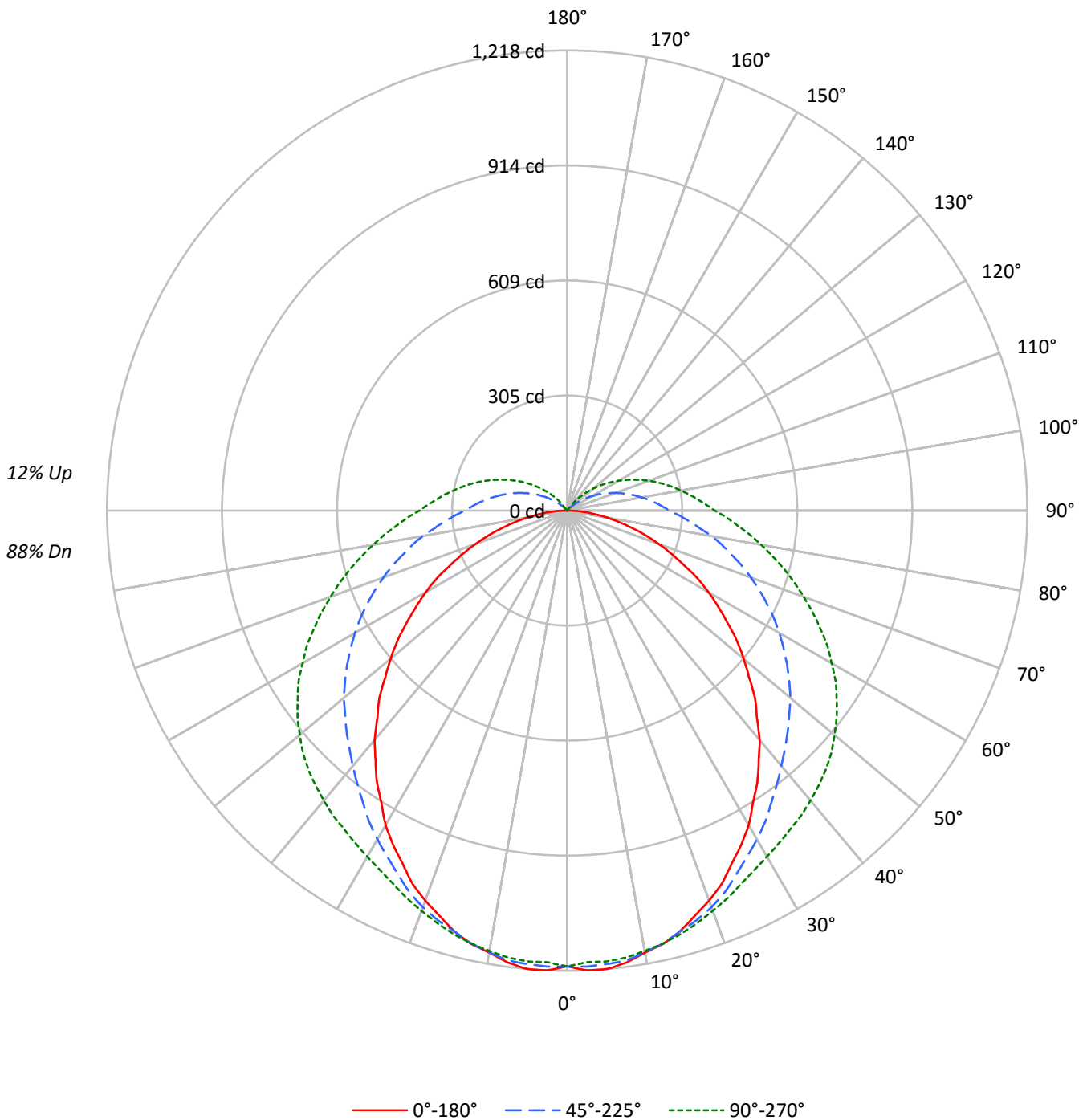
Input Watts (W): 47.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	116	116	116	116	112	112	112	112	105	105	105	98	98	98	91	91	91	88
1	103	97	92	87	99	94	89	85	87	84	80	81	78	75	76	73	71	68
2	93	84	76	69	89	81	73	67	75	69	64	70	65	61	65	61	58	55
3	84	73	64	56	81	70	62	55	65	58	53	61	55	50	57	52	48	45
4	77	64	54	47	73	62	53	46	58	50	44	54	48	42	50	45	41	38
5	70	57	47	40	67	55	46	39	51	44	38	48	42	36	45	39	35	32
6	65	51	42	35	62	49	41	34	46	39	33	43	37	32	41	35	31	28
7	60	46	37	31	58	45	36	30	42	34	29	39	33	28	37	31	27	25
8	56	42	33	27	54	41	32	27	38	31	26	36	30	25	34	28	24	22
9	52	38	30	24	50	37	29	24	35	28	23	33	27	22	31	26	22	20
10	49	35	27	22	47	34	27	22	33	26	21	31	25	20	29	24	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14167	14167	14167
5°	14325	13795	13580
10°	14098	13362	13064
15°	13922	12849	12575
20°	13597	12424	12087
25°	13194	11866	11650
30°	12844	11388	11364
35°	12359	10916	11191
40°	11893	10522	11117
45°	11386	10238	11059
50°	10804	10027	10949
55°	10242	9796	10809
60°	9719	9590	10626
65°	8952	9383	10405
70°	8266	9188	10168
75°	7331	8997	9993
80°	6287	8958	9862
85°	4942	8946	9842



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.3	2.5
10°-20°	325.0	7.0
20°-30°	487.6	10.5
30°-40°	592.0	12.7
40°-50°	639.4	13.7
50°-60°	626.2	13.4
60°-70°	555.5	11.9
70°-80°	444.9	9.5
80°-90°	322.5	6.9
90°-100°	227.3	4.9
100°-110°	158.5	3.4
110°-120°	98.1	2.1
120°-130°	49.9	1.1
130°-140°	17.3	0.4
140°-150°	0.8	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	926.8	19.9
0°-40°	1518.8	32.6
0°-60°	2784.4	59.8
0°-90°	4107.3	88.2
90°-120°	483.9	10.4
90°-150°	551.9	11.8
90°-180°	552.0	11.8
0°-180°	4659.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1206	1206	1206	1206	1206	
5°	1218	1206	1205	1199	1198	115
15°	1153	1145	1153	1163	1160	324
25°	1031	1034	1061	1078	1090	476
35°	878	884	943	999	1029	548
45°	704	722	826	928	969	540
55°	519	562	711	827	871	465
65°	340	421	584	696	740	340
75°	177	290	450	558	594	189
85°	48	177	324	421	453	51
90°	1	130	270	359	391	4
95°	0	102	235	319	346	0
105°	0	55	169	244	268	0
115°	0	17	107	172	193	0
125°	0	0	52	105	124	0
135°	0	0	9	46	60	1
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1206.5	1206.5	1206.5	1206.5	1206.5	1206.5	1206.5	1206.5	1206.5	1206.5	1206.5
2.5°	1218.1	1216.6	1212.3	1208.0	1206.5	1206.5	1205.1	1203.7	1203.7	1202.2	1208.0
5°	1218.1	1216.6	1212.3	1206.5	1205.1	1206.5	1205.1	1202.2	1202.2	1200.8	1205.1
7.5°	1206.5	1203.7	1200.8	1196.5	1195.0	1195.0	1193.6	1193.6	1193.6	1193.6	1200.8
10°	1187.8	1186.4	1183.5	1179.2	1179.2	1177.7	1177.7	1179.2	1179.2	1180.6	1187.8
12.5°	1174.8	1171.9	1167.6	1163.3	1161.9	1161.9	1160.4	1159.0	1160.4	1161.9	1173.4
15°	1153.2	1151.8	1148.9	1144.6	1144.6	1144.6	1144.6	1143.1	1143.1	1144.6	1153.2
17.5°	1124.4	1121.5	1120.1	1117.2	1118.6	1120.1	1121.5	1120.1	1122.9	1127.3	1137.4
20°	1098.4	1095.5	1092.7	1088.3	1088.3	1089.8	1091.2	1091.2	1098.4	1104.2	1117.2
22.5°	1069.6	1068.2	1065.3	1063.8	1063.8	1065.3	1065.3	1062.4	1066.7	1075.4	1092.7
25°	1030.7	1029.2	1027.8	1027.8	1030.7	1033.6	1035.0	1036.4	1040.8	1046.5	1061.0
27.5°	997.5	996.1	993.2	990.3	993.2	996.1	997.5	1000.4	1009.1	1020.6	1032.1
30°	961.5	960.0	958.6	958.6	961.5	962.9	964.4	962.9	974.5	991.8	1004.7
32.5°	915.4	913.9	915.4	915.4	922.6	926.9	929.8	931.2	941.3	957.2	975.9
35°	877.9	877.9	876.4	879.3	880.8	883.6	886.5	893.7	908.2	924.0	942.7
37.5°	833.2	833.2	833.2	840.4	846.2	847.6	849.1	857.7	876.4	892.3	912.5
40°	792.8	792.8	792.8	795.7	800.0	804.4	810.1	820.2	839.0	862.0	882.2
42.5°	743.8	745.3	748.1	755.4	761.1	764.0	768.3	784.2	804.4	831.8	853.4
45°	703.5	702.0	704.9	710.7	716.4	722.2	729.4	746.7	771.2	801.5	826.0
47.5°	653.0	654.4	657.3	667.4	674.6	681.8	690.5	710.7	739.5	769.8	797.2
50°	609.8	611.2	618.4	624.2	631.4	640.0	650.1	676.1	707.8	738.1	771.2
52.5°	566.5	568.0	573.7	578.0	589.6	599.7	612.6	641.5	674.6	707.8	740.9
55°	518.9	521.8	526.2	536.2	550.7	562.2	576.6	608.3	641.5	677.5	710.7
57.5°	474.3	475.7	482.9	493.0	510.3	524.7	542.0	575.2	611.2	645.8	679.0
60°	432.5	435.3	439.7	452.6	475.7	490.1	507.4	542.0	579.5	614.1	648.7
62.5°	389.2	392.1	397.9	412.3	439.7	455.5	474.3	510.3	547.8	582.4	617.0
65°	340.2	343.1	351.7	370.5	403.6	420.9	439.7	477.1	513.2	549.2	583.8
67.5°	298.4	299.8	311.4	331.5	366.1	387.8	407.9	444.0	480.0	516.1	550.7
70°	258.0	260.9	269.6	297.0	334.4	351.7	373.4	412.3	448.3	484.3	517.5
72.5°	217.7	220.6	233.5	263.8	302.7	321.5	338.8	380.6	416.6	451.2	484.3
75°	177.3	181.6	198.9	233.5	271.0	289.7	308.5	346.0	384.9	418.0	449.8
77.5°	141.3	145.6	167.2	203.3	240.7	259.5	278.2	314.2	350.3	386.3	419.5
80°	106.7	112.4	138.4	174.4	211.9	230.6	247.9	285.4	320.0	353.2	387.8
82.5°	76.4	83.6	113.9	148.5	186.0	203.3	220.6	256.6	291.2	322.9	353.2
85°	47.6	60.5	90.8	124.0	160.0	177.3	194.6	230.6	263.8	295.5	324.3
87.5°	23.1	40.4	69.2	100.9	135.5	152.8	170.1	204.7	236.4	268.1	297.0
90°	1.4	23.1	49.0	79.3	113.9	129.7	147.0	180.2	211.9	242.2	269.6
92.5°	0.0	14.4	38.9	67.8	99.5	116.8	132.6	165.8	196.0	226.3	252.3
95°	0.0	7.2	30.3	57.7	87.9	102.3	118.2	149.9	180.2	209.0	235.0
97.5°	0.0	1.4	21.6	46.1	75.0	90.8	105.2	135.5	165.8	193.2	217.7
100°	0.0	0.0	14.4	37.5	63.4	77.8	92.3	121.1	149.9	175.9	200.4
102.5°	0.0	0.0	7.2	28.8	53.3	66.3	79.3	108.1	135.5	161.4	184.5
105°	0.0	0.0	1.4	20.2	43.2	54.8	67.8	93.7	121.1	145.6	168.7
107.5°	0.0	0.0	0.0	11.5	33.2	44.7	56.2	80.7	106.7	129.7	151.4
110°	0.0	0.0	0.0	5.8	24.5	34.6	46.1	69.2	92.3	115.3	136.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	0.0	0.0	1.4	15.9	25.9	36.0	57.7	79.3	100.9	121.1
115°	0.0	0.0	0.0	0.0	8.6	17.3	25.9	46.1	66.3	87.9	106.7
117.5°	0.0	0.0	0.0	0.0	2.9	10.1	17.3	36.0	54.8	73.5	92.3
120°	0.0	0.0	0.0	0.0	0.0	4.3	10.1	25.9	43.2	60.5	77.8
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	15.9	31.7	49.0	64.9
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6	21.6	37.5	51.9
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	13.0	25.9	38.9
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	15.9	27.4
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	8.6	17.3
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	8.6
137.5°	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
140°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1206.5	1206.5	1206.5	1206.5	1206.5	1206.5	1206.5	1206.5	1206.5	1206.5
2.5°	1212.3	1206.5	1206.5	1205.1	1203.7	1202.2	1199.3	1197.9	1195.0	1196.5
5°	1209.4	1203.7	1203.7	1200.8	1199.3	1199.3	1197.9	1197.9	1196.5	1197.9
7.5°	1205.1	1197.9	1197.9	1195.0	1193.6	1192.1	1192.1	1192.1	1192.1	1193.6
10°	1193.6	1189.2	1189.2	1187.8	1186.4	1183.5	1182.0	1183.5	1182.0	1183.5
12.5°	1177.7	1173.4	1176.3	1176.3	1176.3	1173.4	1171.9	1173.4	1171.9	1173.4
15°	1157.5	1156.1	1160.4	1161.9	1163.3	1161.9	1160.4	1160.4	1160.4	1160.4
17.5°	1137.4	1135.9	1141.7	1144.6	1144.6	1144.6	1144.6	1143.1	1143.1	1144.6
20°	1120.1	1114.3	1117.2	1122.9	1124.4	1124.4	1125.8	1127.3	1127.3	1127.3
22.5°	1095.5	1092.7	1094.1	1098.4	1101.3	1102.8	1107.1	1107.1	1108.5	1110.0
25°	1066.7	1071.0	1072.5	1076.8	1078.3	1081.1	1086.9	1089.8	1089.8	1089.8
27.5°	1036.4	1045.1	1050.9	1053.7	1056.6	1059.5	1066.7	1072.5	1072.5	1072.5
30°	1007.6	1016.3	1027.8	1033.6	1036.4	1039.3	1049.4	1056.6	1058.1	1058.1
32.5°	977.3	988.9	1006.2	1014.8	1016.3	1020.6	1033.6	1042.2	1043.7	1043.7
35°	951.4	965.8	984.6	996.1	999.0	1003.3	1017.7	1027.8	1029.2	1029.2
37.5°	928.3	942.7	962.9	978.8	981.7	987.4	1001.9	1014.8	1016.3	1017.7
40°	902.4	919.7	939.9	958.6	964.4	970.1	986.0	999.0	1001.9	1001.9
42.5°	876.4	898.1	918.2	939.9	947.1	952.8	970.1	983.1	986.0	986.0
45°	849.1	876.4	896.6	919.7	928.3	934.1	950.0	964.4	968.7	968.7
47.5°	824.5	853.4	873.6	896.6	905.3	913.9	928.3	942.7	947.1	948.5
50°	797.2	828.9	849.1	870.7	882.2	890.9	905.3	921.1	925.5	924.0
52.5°	769.8	800.0	821.7	844.7	856.3	864.9	877.9	895.2	899.5	899.5
55°	740.9	771.2	794.3	815.9	827.4	839.0	851.9	866.3	872.1	870.7
57.5°	712.1	739.5	764.0	787.1	797.2	808.7	821.7	836.1	840.4	843.3
60°	681.8	706.3	733.7	755.4	765.4	777.0	789.9	802.9	810.1	808.7
62.5°	648.7	676.1	702.0	722.2	732.3	743.8	756.8	768.3	774.1	777.0
65°	615.5	641.5	666.0	687.6	696.3	707.8	722.2	730.8	738.1	739.5
67.5°	580.9	606.9	631.4	654.4	663.1	673.2	686.2	694.8	702.0	703.5
70°	546.3	573.7	598.2	619.9	628.5	637.1	650.1	658.8	666.0	666.0
72.5°	513.2	540.6	563.6	585.3	593.9	601.1	614.1	622.7	628.5	629.9
75°	480.0	506.0	529.0	550.7	557.9	566.5	578.0	586.7	592.5	593.9
77.5°	446.9	474.3	495.9	516.1	523.3	530.5	543.5	550.7	556.4	556.4
80°	415.2	441.1	462.7	481.5	487.2	495.9	507.4	514.6	518.9	521.8
82.5°	384.9	409.4	429.6	446.9	455.5	461.3	472.8	480.0	484.3	487.2
85°	351.7	377.7	397.9	415.2	420.9	429.6	439.7	446.9	451.2	452.6
87.5°	321.5	344.5	364.7	384.9	392.1	397.9	407.9	415.2	419.5	422.4
90°	295.5	317.1	335.9	351.7	358.9	366.1	377.7	384.9	389.2	390.6
92.5°	276.8	298.4	315.7	331.5	338.8	344.5	354.6	361.8	366.1	367.6
95°	259.5	279.7	297.0	312.8	318.6	324.3	334.4	340.2	343.1	346.0
97.5°	240.7	262.4	278.2	292.6	299.8	304.2	314.2	320.0	324.3	325.8
100°	223.4	243.6	259.5	275.3	281.1	285.4	295.5	301.3	304.2	305.6
102.5°	206.1	226.3	242.2	256.6	262.4	266.7	275.3	281.1	285.4	286.9
105°	188.8	207.6	223.4	237.8	243.6	247.9	256.6	262.4	266.7	268.1
107.5°	173.0	190.3	206.1	219.1	224.9	229.2	237.8	243.6	247.9	249.4
110°	157.1	173.0	188.8	201.8	207.6	211.9	220.6	224.9	229.2	230.6



TEST NUMBER: P257071

CATALOG NUMBER: HGL-S-UF-60L940-UNV-4

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	139.8	157.1	171.5	184.5	188.8	194.6	201.8	207.6	210.5	211.9
115°	125.4	141.3	154.2	167.2	171.5	175.9	184.5	188.8	193.2	193.2
117.5°	109.6	124.0	138.4	149.9	154.2	158.6	167.2	171.5	174.4	175.9
120°	95.1	108.1	121.1	132.6	138.4	141.3	149.9	154.2	157.1	158.6
122.5°	80.7	93.7	106.7	116.8	121.1	125.4	132.6	136.9	139.8	141.3
125°	66.3	79.3	90.8	100.9	105.2	109.6	115.3	119.6	122.5	124.0
127.5°	53.3	64.9	76.4	85.0	89.4	93.7	99.5	103.8	106.7	108.1
130°	40.4	50.5	62.0	70.6	75.0	77.8	83.6	87.9	90.8	92.3
132.5°	27.4	37.5	47.6	56.2	60.5	63.4	69.2	72.1	75.0	76.4
135°	17.3	25.9	34.6	41.8	46.1	49.0	54.8	57.7	60.5	60.5
137.5°	8.6	15.9	23.1	28.8	31.7	36.0	40.4	43.2	44.7	46.1
140°	2.9	7.2	13.0	17.3	20.2	23.1	27.4	30.3	31.7	33.2
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)