

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: P257107

Luminaire Tested: **HGL-S-UF-80L835-UNV-12**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P257107  
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-80L835-UNV-12  
Description: HUGO 12 FOOT LINEAR LED LUMINAIRE WITH FROSTED LENS WITH UPLIGHT  
Light Source: (504) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24662.0 lumens  
Efficiency: N/A  
Efficacy: 116.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.32 / 1.4  
Luminous Opening: Rectangular w/ Sides (W: 0.23' x L: 12' x H: 0.1')  
CIE Type: Semi-Direct

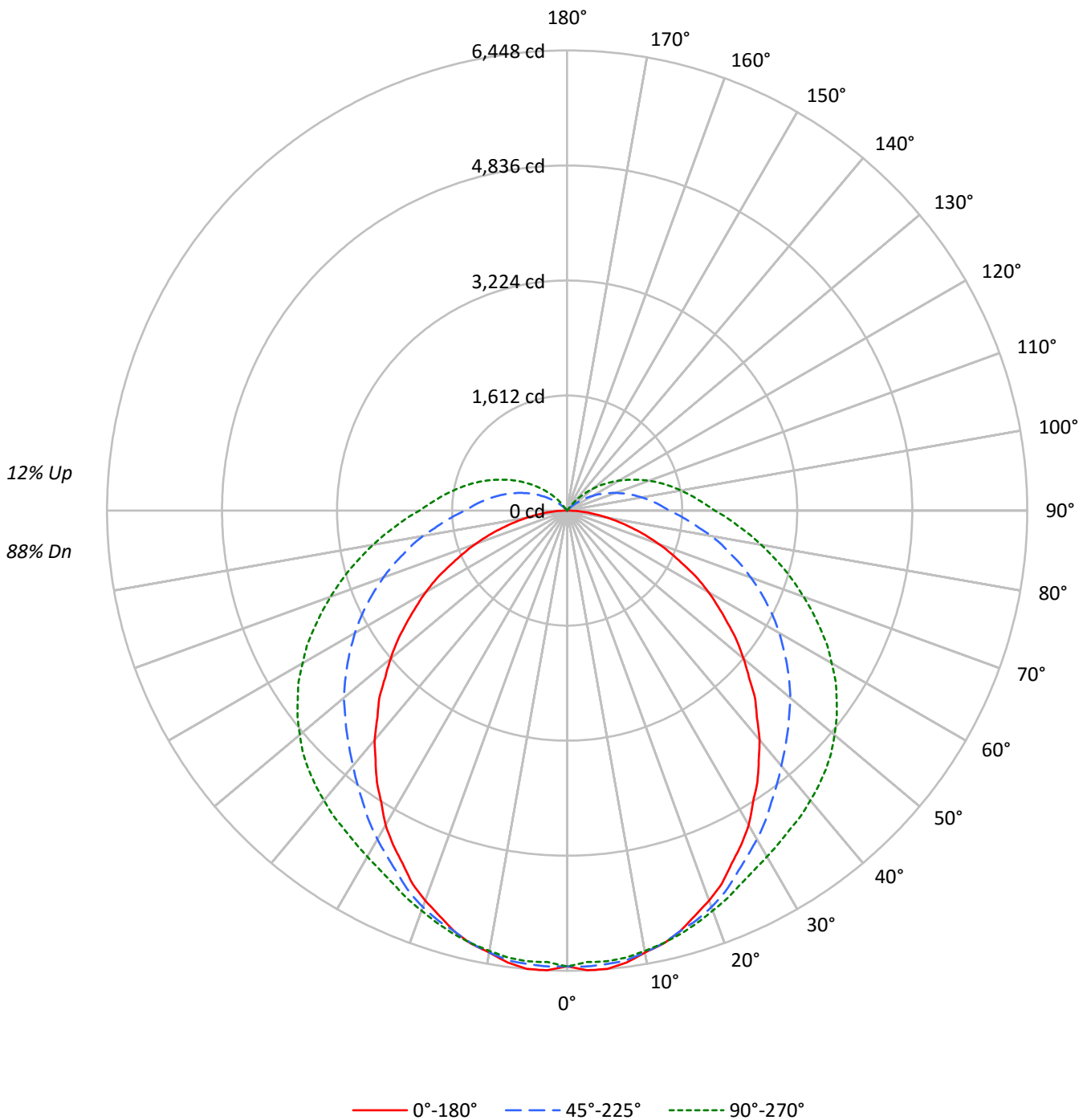
Input Watts (W): 212  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P257107

CATALOG NUMBER: HGL-S-UF-80L835-UNV-12

### Luminous Intensity Polar Plot





TEST NUMBER: P257107

CATALOG NUMBER: HGL-S-UF-80L835-UNV-12

**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	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°	24998	24998	24998
5°	25314	24365	23960
10°	24951	23625	23051
15°	24678	22740	22188
20°	24142	22008	21326
25°	23467	21040	20556
30°	22887	20214	20051
35°	22070	19396	19747
40°	21288	18716	19615
45°	20434	18230	19513
50°	19453	17879	19318
55°	18516	17489	19070
60°	17654	17150	18748
65°	16373	16811	18358
70°	15266	16499	17939
75°	13748	16199	17631
80°	12129	16190	17401
85°	10288	16253	17367



TEST NUMBER: P257107

CATALOG NUMBER: HGL-S-UF-80L835-UNV-12

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	604.8	2.5
10°-20°	1720.1	7.0
20°-30°	2580.9	10.5
30°-40°	3133.5	12.7
40°-50°	3384.5	13.7
50°-60°	3314.7	13.4
60°-70°	2940.1	11.9
70°-80°	2355.1	9.5
80°-90°	1706.8	6.9
90°-100°	1202.9	4.9
100°-110°	839.1	3.4
110°-120°	519.5	2.1
120°-130°	264.2	1.1
130°-140°	91.5	0.4
140°-150°	4.3	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	4905.8	19.9
0°-40°	8039.3	32.6
0°-60°	14738.4	59.8
0°-90°	21740.5	88.2
90°-120°	2561.5	10.4
90°-150°	2921.6	11.8
90°-180°	2922.0	11.8
0°-180°	24662.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6386	6386	6386	6386	6386	
5°	6448	6386	6379	6348	6341	610
15°	6104	6058	6104	6158	6142	1717
25°	5456	5471	5616	5707	5768	2518
35°	4647	4677	4990	5288	5448	2902
45°	3724	3823	4372	4914	5128	2861
55°	2747	2976	3762	4380	4609	2462
65°	1801	2228	3090	3685	3914	1798
75°	938	1534	2381	2953	3144	1003
85°	252	938	1717	2228	2396	272
90°	8	687	1427	1900	2068	19
95°	0	542	1244	1686	1831	0
105°	0	290	893	1290	1419	0
115°	0	92	565	908	1022	0
125°	0	0	275	557	656	0
135°	0	0	46	244	320	4
145°	0	0	0	0	0	1
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



TEST NUMBER: P257107

CATALOG NUMBER: HGL-S-UF-80L835-UNV-12

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	6386.5	6386.5	6386.5	6386.5	6386.5	6386.5	6386.5	6386.5	6386.5	6386.5	6386.5
2.5°	6447.5	6439.9	6417.0	6394.1	6386.5	6386.5	6378.8	6371.2	6371.2	6363.6	6394.1
5°	6447.5	6439.9	6417.0	6386.5	6378.8	6386.5	6378.8	6363.6	6363.6	6355.9	6378.8
7.5°	6386.5	6371.2	6355.9	6333.1	6325.4	6325.4	6317.8	6317.8	6317.8	6317.8	6355.9
10°	6287.3	6279.6	6264.4	6241.5	6241.5	6233.9	6233.9	6241.5	6241.5	6249.1	6287.3
12.5°	6218.6	6203.3	6180.5	6157.6	6149.9	6149.9	6142.3	6134.7	6142.3	6149.9	6211.0
15°	6104.2	6096.5	6081.3	6058.4	6058.4	6058.4	6058.4	6050.7	6050.7	6058.4	6104.2
17.5°	5951.5	5936.3	5928.7	5913.4	5921.0	5928.7	5936.3	5928.7	5943.9	5966.8	6020.2
20°	5814.2	5798.9	5783.7	5760.8	5760.8	5768.4	5776.1	5776.1	5814.2	5844.7	5913.4
22.5°	5661.6	5654.0	5638.7	5631.1	5631.1	5638.7	5638.7	5623.4	5646.3	5692.1	5783.7
25°	5455.6	5448.0	5440.3	5440.3	5455.6	5470.8	5478.5	5486.1	5509.0	5539.5	5615.8
27.5°	5280.1	5272.5	5257.2	5241.9	5257.2	5272.5	5280.1	5295.4	5341.1	5402.2	5463.2
30°	5089.3	5081.7	5074.1	5074.1	5089.3	5097.0	5104.6	5097.0	5158.0	5249.6	5318.2
32.5°	4845.2	4837.5	4845.2	4845.2	4883.3	4906.2	4921.5	4929.1	4982.5	5066.4	5165.6
35°	4646.8	4646.8	4639.2	4654.4	4662.0	4677.3	4692.6	4730.7	4807.0	4891.0	4990.1
37.5°	4410.2	4410.2	4410.2	4448.4	4478.9	4486.6	4494.2	4540.0	4639.2	4723.1	4829.9
40°	4196.6	4196.6	4196.6	4211.9	4234.8	4257.6	4288.2	4341.6	4440.8	4562.9	4669.7
42.5°	3937.2	3944.8	3960.1	3998.2	4028.7	4044.0	4066.9	4150.8	4257.6	4402.6	4517.1
45°	3723.5	3715.9	3731.2	3761.7	3792.2	3822.7	3860.9	3952.4	4082.2	4242.4	4372.1
47.5°	3456.5	3464.1	3479.4	3532.8	3570.9	3609.1	3654.9	3761.7	3914.3	4074.5	4219.5
50°	3227.6	3235.2	3273.4	3303.9	3342.0	3387.8	3441.2	3578.6	3746.4	3906.7	4082.2
52.5°	2998.7	3006.3	3036.8	3059.7	3120.7	3174.2	3242.8	3395.4	3570.9	3746.4	3921.9
55°	2746.9	2762.1	2785.0	2838.4	2914.7	2975.8	3052.1	3219.9	3395.4	3586.2	3761.7
57.5°	2510.3	2518.0	2556.1	2609.5	2701.1	2777.4	2869.0	3044.4	3235.2	3418.3	3593.8
60°	2289.1	2304.3	2327.2	2395.9	2518.0	2594.3	2685.8	2869.0	3067.3	3250.5	3433.6
62.5°	2060.2	2075.4	2105.9	2182.2	2327.2	2411.1	2510.3	2701.1	2899.5	3082.6	3265.7
65°	1800.7	1816.0	1861.8	1961.0	2136.5	2228.0	2327.2	2525.6	2716.3	2907.1	3090.2
67.5°	1579.4	1587.1	1648.1	1754.9	1938.1	2052.5	2159.3	2350.1	2540.9	2731.6	2914.7
70°	1365.8	1381.1	1426.8	1571.8	1770.2	1861.8	1976.2	2182.2	2373.0	2563.7	2739.2
72.5°	1152.2	1167.4	1236.1	1396.3	1602.3	1701.5	1793.1	2014.4	2205.1	2388.2	2563.7
75°	938.5	961.4	1053.0	1236.1	1434.5	1533.7	1632.9	1831.2	2037.3	2212.8	2380.6
77.5°	747.8	770.6	885.1	1075.9	1274.2	1373.4	1472.6	1663.4	1854.1	2044.9	2220.4
80°	564.6	595.2	732.5	923.3	1121.6	1220.8	1312.4	1510.8	1693.9	1869.4	2052.5
82.5°	404.4	442.6	602.8	785.9	984.3	1075.9	1167.4	1358.2	1541.3	1709.2	1869.4
85°	251.8	320.5	480.7	656.2	847.0	938.5	1030.1	1220.8	1396.3	1564.2	1716.8
87.5°	122.1	213.6	366.2	534.1	717.2	808.8	900.4	1083.5	1251.4	1419.2	1571.8
90°	7.6	122.1	259.4	419.7	602.8	686.7	778.3	953.8	1121.6	1281.9	1426.8
92.5°	0.0	76.3	206.0	358.6	526.5	618.0	702.0	877.5	1037.7	1197.9	1335.3
95°	0.0	38.2	160.2	305.2	465.4	541.7	625.7	793.5	953.8	1106.4	1243.7
97.5°	0.0	7.6	114.5	244.2	396.8	480.7	557.0	717.2	877.5	1022.4	1152.2
100°	0.0	0.0	76.3	198.4	335.7	412.0	488.3	640.9	793.5	930.9	1060.6
102.5°	0.0	0.0	38.2	152.6	282.3	351.0	419.7	572.3	717.2	854.6	976.7
105°	0.0	0.0	7.6	106.8	228.9	289.9	358.6	496.0	640.9	770.6	892.7
107.5°	0.0	0.0	0.0	61.0	175.5	236.5	297.6	427.3	564.6	686.7	801.2
110°	0.0	0.0	0.0	30.5	129.7	183.1	244.2	366.2	488.3	610.4	724.9



TEST NUMBER: P257107

CATALOG NUMBER: HGL-S-UF-80L835-UNV-12

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	0.0	0.0	7.6	83.9	137.3	190.8	305.2	419.7	534.1	640.9
115°	0.0	0.0	0.0	0.0	45.8	91.6	137.3	244.2	351.0	465.4	564.6
117.5°	0.0	0.0	0.0	0.0	15.3	53.4	91.6	190.8	289.9	389.1	488.3
120°	0.0	0.0	0.0	0.0	0.0	22.9	53.4	137.3	228.9	320.5	412.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	15.3	83.9	167.9	259.4	343.4
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.8	114.5	198.4	274.7
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.3	68.7	137.3	206.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.5	83.9	145.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	45.8	91.6
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.3	45.8
137.5°	7.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.3
140°	7.6	7.6	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



TEST NUMBER: P257107

CATALOG NUMBER: HGL-S-UF-80L835-UNV-12

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	6386.5	6386.5	6386.5	6386.5	6386.5	6386.5	6386.5	6386.5	6386.5	6386.5
2.5°	6417.0	6386.5	6386.5	6378.8	6371.2	6363.6	6348.3	6340.7	6325.4	6333.1
5°	6401.7	6371.2	6371.2	6355.9	6348.3	6348.3	6340.7	6340.7	6333.1	6340.7
7.5°	6378.8	6340.7	6340.7	6325.4	6317.8	6310.2	6310.2	6310.2	6310.2	6317.8
10°	6317.8	6294.9	6294.9	6287.3	6279.6	6264.4	6256.8	6264.4	6256.8	6264.4
12.5°	6233.9	6211.0	6226.2	6226.2	6226.2	6211.0	6203.3	6211.0	6203.3	6211.0
15°	6127.0	6119.4	6142.3	6149.9	6157.6	6149.9	6142.3	6142.3	6142.3	6142.3
17.5°	6020.2	6012.6	6043.1	6058.4	6058.4	6058.4	6058.4	6050.7	6050.7	6058.4
20°	5928.7	5898.1	5913.4	5943.9	5951.5	5951.5	5959.2	5966.8	5966.8	5966.8
22.5°	5798.9	5783.7	5791.3	5814.2	5829.5	5837.1	5860.0	5860.0	5867.6	5875.2
25°	5646.3	5669.2	5676.9	5699.8	5707.4	5722.6	5753.2	5768.4	5768.4	5768.4
27.5°	5486.1	5531.9	5562.4	5577.7	5592.9	5608.2	5646.3	5676.9	5676.9	5676.9
30°	5333.5	5379.3	5440.3	5470.8	5486.1	5501.4	5554.8	5592.9	5600.6	5600.6
32.5°	5173.3	5234.3	5325.9	5371.7	5379.3	5402.2	5470.8	5516.6	5524.3	5524.3
35°	5035.9	5112.2	5211.4	5272.5	5287.7	5310.6	5386.9	5440.3	5448.0	5448.0
37.5°	4913.8	4990.1	5097.0	5180.9	5196.2	5226.7	5303.0	5371.7	5379.3	5386.9
40°	4776.5	4868.1	4974.9	5074.1	5104.6	5135.1	5219.0	5287.7	5303.0	5303.0
42.5°	4639.2	4753.6	4860.4	4974.9	5013.0	5043.6	5135.1	5203.8	5219.0	5219.0
45°	4494.2	4639.2	4746.0	4868.1	4913.8	4944.4	5028.3	5104.6	5127.5	5127.5
47.5°	4364.5	4517.1	4623.9	4746.0	4791.8	4837.5	4913.8	4990.1	5013.0	5020.7
50°	4219.5	4387.4	4494.2	4608.6	4669.7	4715.5	4791.8	4875.7	4898.6	4891.0
52.5°	4074.5	4234.8	4349.2	4471.3	4532.3	4578.1	4646.8	4738.3	4761.2	4761.2
55°	3921.9	4082.2	4204.2	4318.7	4379.7	4440.8	4509.4	4585.7	4616.3	4608.6
57.5°	3769.3	3914.3	4044.0	4166.1	4219.5	4280.5	4349.2	4425.5	4448.4	4463.7
60°	3609.1	3738.8	3883.8	3998.2	4051.6	4112.7	4181.3	4250.0	4288.2	4280.5
62.5°	3433.6	3578.6	3715.9	3822.7	3876.1	3937.2	4005.8	4066.9	4097.4	4112.7
65°	3258.1	3395.4	3525.1	3639.6	3685.4	3746.4	3822.7	3868.5	3906.7	3914.3
67.5°	3075.0	3212.3	3342.0	3464.1	3509.9	3563.3	3632.0	3677.8	3715.9	3723.5
70°	2891.8	3036.8	3166.5	3281.0	3326.8	3372.5	3441.2	3487.0	3525.1	3525.1
72.5°	2716.3	2861.3	2983.4	3097.9	3143.6	3181.8	3250.5	3296.2	3326.8	3334.4
75°	2540.9	2678.2	2800.3	2914.7	2952.9	2998.7	3059.7	3105.5	3136.0	3143.6
77.5°	2365.4	2510.3	2624.8	2731.6	2769.8	2807.9	2876.6	2914.7	2945.3	2945.3
80°	2197.5	2334.8	2449.3	2548.5	2579.0	2624.8	2685.8	2724.0	2746.9	2762.1
82.5°	2037.3	2167.0	2273.8	2365.4	2411.1	2441.7	2502.7	2540.9	2563.7	2579.0
85°	1861.8	1999.1	2105.9	2197.5	2228.0	2273.8	2327.2	2365.4	2388.2	2395.9
87.5°	1701.5	1823.6	1930.4	2037.3	2075.4	2105.9	2159.3	2197.5	2220.4	2235.6
90°	1564.2	1678.6	1777.8	1861.8	1899.9	1938.1	1999.1	2037.3	2060.2	2067.8
92.5°	1465.0	1579.4	1671.0	1754.9	1793.1	1823.6	1877.0	1915.2	1938.1	1945.7
95°	1373.4	1480.3	1571.8	1655.8	1686.3	1716.8	1770.2	1800.7	1816.0	1831.2
97.5°	1274.2	1388.7	1472.6	1548.9	1587.1	1610.0	1663.4	1693.9	1716.8	1724.4
100°	1182.7	1289.5	1373.4	1457.4	1487.9	1510.8	1564.2	1594.7	1610.0	1617.6
102.5°	1091.1	1197.9	1281.9	1358.2	1388.7	1411.6	1457.4	1487.9	1510.8	1518.4
105°	999.6	1098.7	1182.7	1259.0	1289.5	1312.4	1358.2	1388.7	1411.6	1419.2
107.5°	915.6	1007.2	1091.1	1159.8	1190.3	1213.2	1259.0	1289.5	1312.4	1320.0
110°	831.7	915.6	999.6	1068.2	1098.7	1121.6	1167.4	1190.3	1213.2	1220.8





TEST NUMBER: P257107

CATALOG NUMBER: HGL-S-UF-80L835-UNV-12

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	740.1	831.7	908.0	976.7	999.6	1030.1	1068.2	1098.7	1114.0	1121.6
115°	663.8	747.8	816.4	885.1	908.0	930.9	976.7	999.6	1022.4	1022.4
117.5°	579.9	656.2	732.5	793.5	816.4	839.3	885.1	908.0	923.3	930.9
120°	503.6	572.3	640.9	702.0	732.5	747.8	793.5	816.4	831.7	839.3
122.5°	427.3	496.0	564.6	618.0	640.9	663.8	702.0	724.9	740.1	747.8
125°	351.0	419.7	480.7	534.1	557.0	579.9	610.4	633.3	648.6	656.2
127.5°	282.3	343.4	404.4	450.2	473.1	496.0	526.5	549.4	564.6	572.3
130°	213.6	267.1	328.1	373.9	396.8	412.0	442.6	465.4	480.7	488.3
132.5°	145.0	198.4	251.8	297.6	320.5	335.7	366.2	381.5	396.8	404.4
135°	91.6	137.3	183.1	221.3	244.2	259.4	289.9	305.2	320.5	320.5
137.5°	45.8	83.9	122.1	152.6	167.9	190.8	213.6	228.9	236.5	244.2
140°	15.3	38.2	68.7	91.6	106.8	122.1	145.0	160.2	167.9	175.5
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)