

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: P257101

Luminaire Tested: **HGL-S-UF-60L830-UNV-12**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257101
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-60L830-UNV-12
Description: HUGO 12 FOOT LINEAR LED LUMINAIRE WITH FROSTED LENS WITH UPLIGHT
Light Source: (504) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

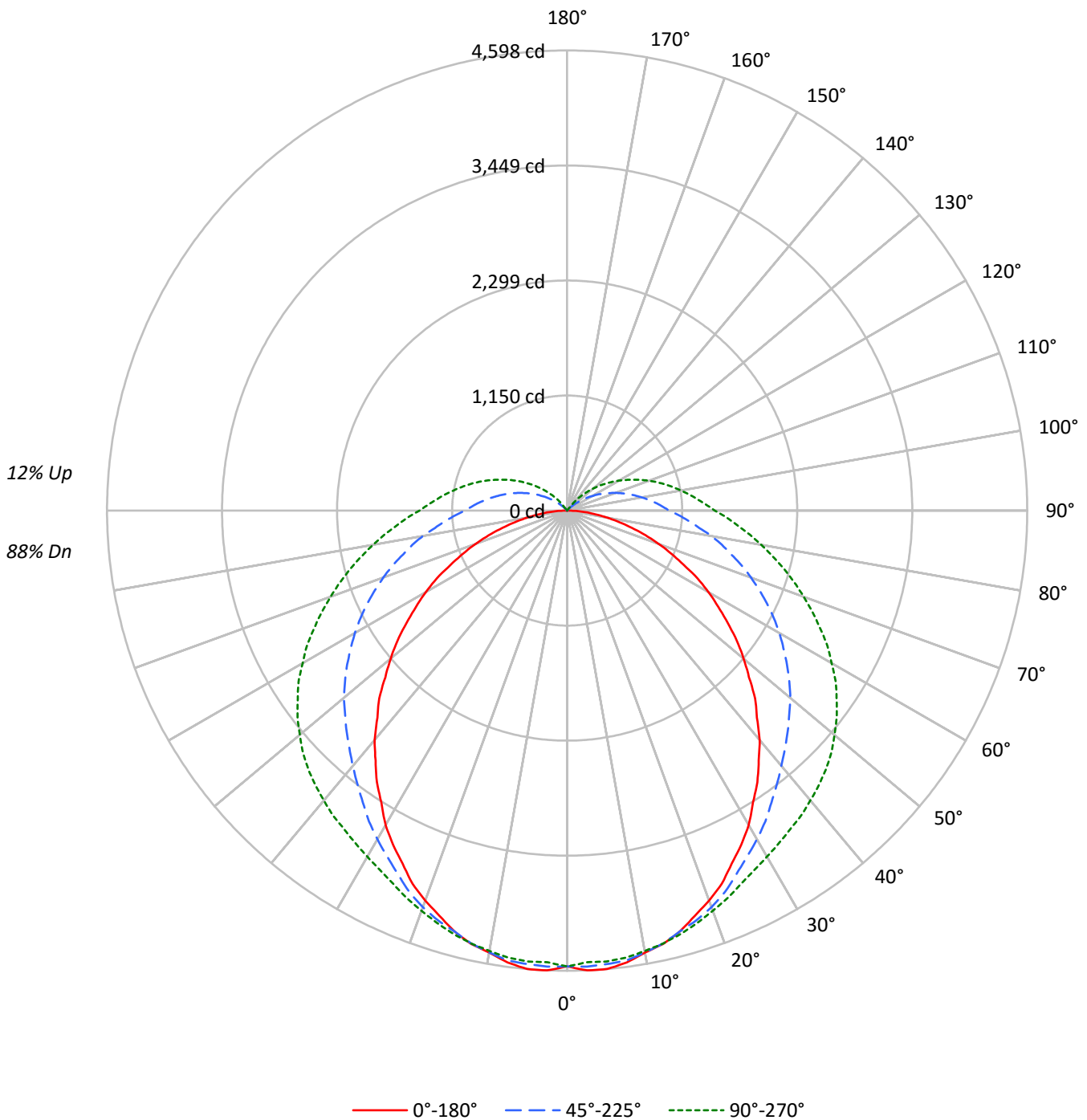
Lumens per Lamp: N/A
Luminaire Lumens: 17588.6 lumens
Efficiency: N/A
Efficacy: 123.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.32 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 0.23' x L: 12' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 142
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: P257101
CATALOG NUMBER: HGL-S-UF-60L830-UNV-12

Luminous Intensity Polar Plot





TEST NUMBER: P257101

CATALOG NUMBER: HGL-S-UF-60L830-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°	17828	17828	17828
5°	18053	17377	17088
10°	17795	16849	16439
15°	17600	16218	15824
20°	17218	15696	15209
25°	16736	15005	14660
30°	16323	14416	14300
35°	15740	13833	14083
40°	15182	13348	13989
45°	14573	13001	13917
50°	13874	12751	13777
55°	13205	12473	13601
60°	12590	12231	13371
65°	11677	11990	13093
70°	10888	11767	12794
75°	9804	11553	12575
80°	8651	11546	12410
85°	7338	11591	12386



TEST NUMBER: P257101

CATALOG NUMBER: HGL-S-UF-60L830-UNV-12

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	431.4	2.5
10°-20°	1226.7	7.0
20°-30°	1840.6	10.5
30°-40°	2234.8	12.7
40°-50°	2413.8	13.7
50°-60°	2364.0	13.4
60°-70°	2096.9	11.9
70°-80°	1679.6	9.5
80°-90°	1217.3	6.9
90°-100°	857.9	4.9
100°-110°	598.4	3.4
110°-120°	370.5	2.1
120°-130°	188.4	1.1
130°-140°	65.3	0.4
140°-150°	3.1	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	3498.7	19.9
0°-40°	5733.5	32.6
0°-60°	10511.3	59.8
0°-90°	15505.0	88.2
90°-120°	1826.9	10.4
90°-150°	2083.6	11.8
90°-180°	2084.0	11.8
0°-180°	17588.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4555	4555	4555	4555	4555	
5°	4598	4555	4549	4528	4522	435
15°	4353	4321	4353	4392	4381	1224
25°	3891	3902	4005	4070	4114	1796
35°	3314	3336	3559	3771	3885	2069
45°	2656	2726	3118	3504	3657	2040
55°	1959	2122	2683	3124	3287	1756
65°	1284	1589	2204	2628	2792	1282
75°	669	1094	1698	2106	2242	715
85°	180	669	1224	1589	1709	194
90°	5	490	1018	1355	1475	13
95°	0	386	887	1203	1306	0
105°	0	207	637	920	1012	0
115°	0	65	403	648	729	0
125°	0	0	196	397	468	0
135°	0	0	33	174	229	3
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



TEST NUMBER: P257101

CATALOG NUMBER: HGL-S-UF-60L830-UNV-12

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	4554.7	4554.7	4554.7	4554.7	4554.7	4554.7	4554.7	4554.7	4554.7	4554.7	4554.7
2.5°	4598.3	4592.8	4576.5	4560.2	4554.7	4554.7	4549.3	4543.9	4543.9	4538.4	4560.2
5°	4598.3	4592.8	4576.5	4554.7	4549.3	4554.7	4549.3	4538.4	4538.4	4533.0	4549.3
7.5°	4554.7	4543.9	4533.0	4516.7	4511.2	4511.2	4505.8	4505.8	4505.8	4505.8	4533.0
10°	4484.0	4478.6	4467.7	4451.4	4451.4	4445.9	4445.9	4451.4	4451.4	4456.8	4484.0
12.5°	4435.0	4424.1	4407.8	4391.5	4386.1	4386.1	4380.6	4375.2	4380.6	4386.1	4429.6
15°	4353.4	4348.0	4337.1	4320.7	4320.7	4320.7	4320.7	4315.3	4315.3	4320.7	4353.4
17.5°	4244.6	4233.7	4228.2	4217.4	4222.8	4228.2	4233.7	4228.2	4239.1	4255.4	4293.5
20°	4146.6	4135.7	4124.8	4108.5	4108.5	4114.0	4119.4	4119.4	4146.6	4168.4	4217.4
22.5°	4037.8	4032.3	4021.5	4016.0	4016.0	4021.5	4021.5	4010.6	4026.9	4059.5	4124.8
25°	3890.9	3885.4	3880.0	3880.0	3890.9	3901.7	3907.2	3912.6	3928.9	3950.7	4005.1
27.5°	3765.7	3760.2	3749.4	3738.5	3749.4	3760.2	3765.7	3776.6	3809.2	3852.8	3896.3
30°	3629.6	3624.2	3618.8	3618.8	3629.6	3635.1	3640.5	3635.1	3678.6	3743.9	3792.9
32.5°	3455.5	3450.1	3455.5	3455.5	3482.7	3499.0	3509.9	3515.4	3553.5	3613.3	3684.1
35°	3314.0	3314.0	3308.6	3319.5	3324.9	3335.8	3346.7	3373.9	3428.3	3488.2	3558.9
37.5°	3145.3	3145.3	3145.3	3172.5	3194.3	3199.7	3205.2	3237.8	3308.6	3368.4	3444.6
40°	2993.0	2993.0	2993.0	3003.8	3020.2	3036.5	3058.3	3096.4	3167.1	3254.2	3330.4
42.5°	2807.9	2813.4	2824.3	2851.5	2873.2	2884.1	2900.5	2960.3	3036.5	3139.9	3221.5
45°	2655.6	2650.1	2661.0	2682.8	2704.5	2726.3	2753.5	2818.8	2911.3	3025.6	3118.1
47.5°	2465.1	2470.6	2481.4	2519.5	2546.7	2573.9	2606.6	2682.8	2791.6	2905.9	3009.3
50°	2301.9	2307.3	2334.5	2356.3	2383.5	2416.1	2454.2	2552.2	2671.9	2786.2	2911.3
52.5°	2138.6	2144.0	2165.8	2182.1	2225.7	2263.8	2312.7	2421.6	2546.7	2671.9	2797.1
55°	1959.0	1969.9	1986.2	2024.3	2078.7	2122.3	2176.7	2296.4	2421.6	2557.6	2682.8
57.5°	1790.3	1795.8	1823.0	1861.1	1926.4	1980.8	2046.1	2171.3	2307.3	2437.9	2563.1
60°	1632.5	1643.4	1659.7	1708.7	1795.8	1850.2	1915.5	2046.1	2187.6	2318.2	2448.8
62.5°	1469.3	1480.2	1501.9	1556.3	1659.7	1719.6	1790.3	1926.4	2067.9	2198.5	2329.1
65°	1284.3	1295.1	1327.8	1398.5	1523.7	1589.0	1659.7	1801.2	1937.3	2073.3	2203.9
67.5°	1126.4	1131.9	1175.4	1251.6	1382.2	1463.8	1540.0	1676.1	1812.1	1948.1	2078.7
70°	974.1	985.0	1017.6	1121.0	1262.5	1327.8	1409.4	1556.3	1692.4	1828.4	1953.6
72.5°	821.7	832.6	881.6	995.8	1142.8	1213.5	1278.8	1436.6	1572.7	1703.3	1828.4
75°	669.3	685.7	751.0	881.6	1023.0	1093.8	1164.5	1306.0	1452.9	1578.1	1697.8
77.5°	533.3	549.6	631.2	767.3	908.8	979.5	1050.3	1186.3	1322.3	1458.4	1583.5
80°	402.7	424.5	522.4	658.5	799.9	870.7	936.0	1077.5	1208.1	1333.2	1463.8
82.5°	288.4	315.6	429.9	560.5	702.0	767.3	832.6	968.6	1099.2	1219.0	1333.2
85°	179.6	228.6	342.8	468.0	604.0	669.3	734.6	870.7	995.8	1115.6	1224.4
87.5°	87.1	152.4	261.2	380.9	511.5	576.8	642.1	772.7	892.4	1012.2	1121.0
90°	5.4	87.1	185.0	299.3	429.9	489.8	555.1	680.2	799.9	914.2	1017.6
92.5°	0.0	54.4	146.9	255.8	375.5	440.8	500.6	625.8	740.1	854.4	952.3
95°	0.0	27.2	114.3	217.7	331.9	386.4	446.2	565.9	680.2	789.1	887.0
97.5°	0.0	5.4	81.6	174.1	283.0	342.8	397.2	511.5	625.8	729.2	821.7
100°	0.0	0.0	54.4	141.5	239.4	293.9	348.3	457.1	565.9	663.9	756.4
102.5°	0.0	0.0	27.2	108.8	201.3	250.3	299.3	408.1	511.5	609.5	696.5
105°	0.0	0.0	5.4	76.2	163.3	206.8	255.8	353.7	457.1	549.6	636.7
107.5°	0.0	0.0	0.0	43.5	125.2	168.7	212.2	304.7	402.7	489.8	571.4
110°	0.0	0.0	0.0	21.8	92.5	130.6	174.1	261.2	348.3	435.3	517.0



TEST NUMBER: P257101

CATALOG NUMBER: HGL-S-UF-60L830-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	5.4	59.9	98.0	136.0	217.7	299.3	380.9	457.1
115°	0.0	0.0	0.0	0.0	32.7	65.3	98.0	174.1	250.3	331.9	402.7
117.5°	0.0	0.0	0.0	0.0	10.9	38.1	65.3	136.0	206.8	277.5	348.3
120°	0.0	0.0	0.0	0.0	0.0	16.3	38.1	98.0	163.3	228.6	293.9
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	10.9	59.9	119.7	185.0	244.9
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.7	81.6	141.5	195.9
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9	49.0	98.0	146.9
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.8	59.9	103.4
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	32.7	65.3
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9	32.7
137.5°	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9
140°	5.4	5.4	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



TEST NUMBER: P257101

CATALOG NUMBER: HGL-S-UF-60L830-UNV-12

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	4554.7	4554.7	4554.7	4554.7	4554.7	4554.7	4554.7	4554.7	4554.7	4554.7
2.5°	4576.5	4554.7	4554.7	4549.3	4543.9	4538.4	4527.5	4522.1	4511.2	4516.7
5°	4565.6	4543.9	4543.9	4533.0	4527.5	4527.5	4522.1	4522.1	4516.7	4522.1
7.5°	4549.3	4522.1	4522.1	4511.2	4505.8	4500.3	4500.3	4500.3	4500.3	4505.8
10°	4505.8	4489.4	4489.4	4484.0	4478.6	4467.7	4462.2	4467.7	4462.2	4467.7
12.5°	4445.9	4429.6	4440.5	4440.5	4440.5	4429.6	4424.1	4429.6	4424.1	4429.6
15°	4369.7	4364.3	4380.6	4386.1	4391.5	4386.1	4380.6	4380.6	4380.6	4380.6
17.5°	4293.5	4288.1	4309.9	4320.7	4320.7	4320.7	4320.7	4315.3	4315.3	4320.7
20°	4228.2	4206.5	4217.4	4239.1	4244.6	4244.6	4250.0	4255.4	4255.4	4255.4
22.5°	4135.7	4124.8	4130.3	4146.6	4157.5	4162.9	4179.3	4179.3	4184.7	4190.1
25°	4026.9	4043.2	4048.7	4065.0	4070.4	4081.3	4103.1	4114.0	4114.0	4114.0
27.5°	3912.6	3945.3	3967.0	3977.9	3988.8	3999.7	4026.9	4048.7	4048.7	4048.7
30°	3803.8	3836.4	3880.0	3901.7	3912.6	3923.5	3961.6	3988.8	3994.2	3994.2
32.5°	3689.5	3733.0	3798.3	3831.0	3836.4	3852.8	3901.7	3934.4	3939.8	3939.8
35°	3591.6	3646.0	3716.7	3760.2	3771.1	3787.5	3841.9	3880.0	3885.4	3885.4
37.5°	3504.5	3558.9	3635.1	3694.9	3705.8	3727.6	3782.0	3831.0	3836.4	3841.9
40°	3406.5	3471.8	3548.0	3618.8	3640.5	3662.3	3722.2	3771.1	3782.0	3782.0
42.5°	3308.6	3390.2	3466.4	3548.0	3575.2	3597.0	3662.3	3711.3	3722.2	3722.2
45°	3205.2	3308.6	3384.8	3471.8	3504.5	3526.3	3586.1	3640.5	3656.9	3656.9
47.5°	3112.7	3221.5	3297.7	3384.8	3417.4	3450.1	3504.5	3558.9	3575.2	3580.7
50°	3009.3	3129.0	3205.2	3286.8	3330.4	3363.0	3417.4	3477.3	3493.6	3488.2
52.5°	2905.9	3020.2	3101.8	3188.9	3232.4	3265.1	3314.0	3379.3	3395.7	3395.7
55°	2797.1	2911.3	2998.4	3080.0	3123.6	3167.1	3216.1	3270.5	3292.3	3286.8
57.5°	2688.2	2791.6	2884.1	2971.2	3009.3	3052.8	3101.8	3156.2	3172.5	3183.4
60°	2573.9	2666.5	2769.9	2851.5	2889.6	2933.1	2982.1	3031.1	3058.3	3052.8
62.5°	2448.8	2552.2	2650.1	2726.3	2764.4	2807.9	2856.9	2900.5	2922.2	2933.1
65°	2323.6	2421.6	2514.1	2595.7	2628.4	2671.9	2726.3	2759.0	2786.2	2791.6
67.5°	2193.0	2291.0	2383.5	2470.6	2503.2	2541.3	2590.3	2622.9	2650.1	2655.6
70°	2062.4	2165.8	2258.3	2340.0	2372.6	2405.3	2454.2	2486.9	2514.1	2514.1
72.5°	1937.3	2040.7	2127.7	2209.4	2242.0	2269.2	2318.2	2350.8	2372.6	2378.0
75°	1812.1	1910.1	1997.1	2078.7	2106.0	2138.6	2182.1	2214.8	2236.6	2242.0
77.5°	1686.9	1790.3	1872.0	1948.1	1975.4	2002.6	2051.5	2078.7	2100.5	2100.5
80°	1567.2	1665.2	1746.8	1817.5	1839.3	1872.0	1915.5	1942.7	1959.0	1969.9
82.5°	1452.9	1545.5	1621.6	1686.9	1719.6	1741.4	1784.9	1812.1	1828.4	1839.3
85°	1327.8	1425.7	1501.9	1567.2	1589.0	1621.6	1659.7	1686.9	1703.3	1708.7
87.5°	1213.5	1300.6	1376.8	1452.9	1480.2	1501.9	1540.0	1567.2	1583.5	1594.4
90°	1115.6	1197.2	1267.9	1327.8	1355.0	1382.2	1425.7	1452.9	1469.3	1474.7
92.5°	1044.8	1126.4	1191.7	1251.6	1278.8	1300.6	1338.7	1365.9	1382.2	1387.6
95°	979.5	1055.7	1121.0	1180.9	1202.6	1224.4	1262.5	1284.3	1295.1	1306.0
97.5°	908.8	990.4	1050.3	1104.7	1131.9	1148.2	1186.3	1208.1	1224.4	1229.8
100°	843.5	919.7	979.5	1039.4	1061.1	1077.5	1115.6	1137.3	1148.2	1153.7
102.5°	778.2	854.4	914.2	968.6	990.4	1006.7	1039.4	1061.1	1077.5	1082.9
105°	712.9	783.6	843.5	897.9	919.7	936.0	968.6	990.4	1006.7	1012.2
107.5°	653.0	718.3	778.2	827.1	848.9	865.2	897.9	919.7	936.0	941.4
110°	593.2	653.0	712.9	761.8	783.6	799.9	832.6	848.9	865.2	870.7



TEST NUMBER: P257101

CATALOG NUMBER: HGL-S-UF-60L830-UNV-12

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	527.8	593.2	647.6	696.5	712.9	734.6	761.8	783.6	794.5	799.9
115°	473.4	533.3	582.3	631.2	647.6	663.9	696.5	712.9	729.2	729.2
117.5°	413.6	468.0	522.4	565.9	582.3	598.6	631.2	647.6	658.5	663.9
120°	359.2	408.1	457.1	500.6	522.4	533.3	565.9	582.3	593.2	598.6
122.5°	304.7	353.7	402.7	440.8	457.1	473.4	500.6	517.0	527.8	533.3
125°	250.3	299.3	342.8	380.9	397.2	413.6	435.3	451.7	462.5	468.0
127.5°	201.3	244.9	288.4	321.1	337.4	353.7	375.5	391.8	402.7	408.1
130°	152.4	190.5	234.0	266.6	283.0	293.9	315.6	331.9	342.8	348.3
132.5°	103.4	141.5	179.6	212.2	228.6	239.4	261.2	272.1	283.0	288.4
135°	65.3	98.0	130.6	157.8	174.1	185.0	206.8	217.7	228.6	228.6
137.5°	32.7	59.9	87.1	108.8	119.7	136.0	152.4	163.3	168.7	174.1
140°	10.9	27.2	49.0	65.3	76.2	87.1	103.4	114.3	119.7	125.2
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)