

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: NEO-RAY

Report Number: P333227-935

Luminaire Tested: **S125DIP-S850D810U935-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333227-935  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIP-S850D810U935-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5241.0 lumens  
Efficiency: N/A  
Efficacy: 114.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

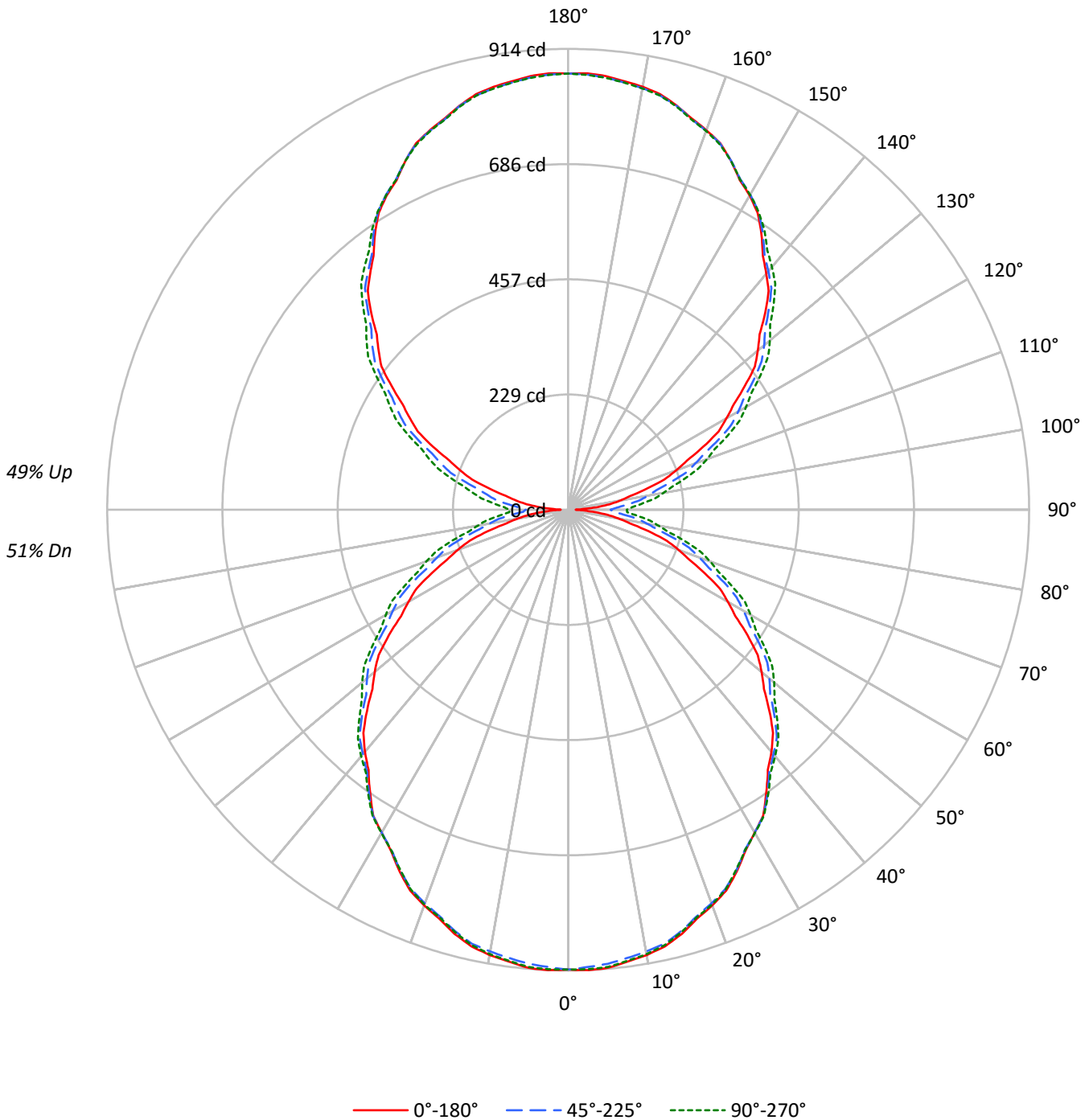
Input Watts (W): 45.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333227-935

CATALOG NUMBER: S125DIP-S850D810U935-4F0-1E-UDD-D1

### 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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	97	93	88	85	89	85	82	79	72	70	67	60	58	56	49	48	46	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	47	43	40	38	34
3	80	70	63	57	74	65	58	53	55	50	46	46	42	39	38	35	32	28
4	73	62	54	48	67	58	50	45	49	43	39	41	37	33	33	30	28	24
5	67	55	47	41	62	51	44	38	44	38	33	37	32	29	30	27	24	21
6	62	49	41	35	57	46	39	33	39	33	29	33	28	25	27	24	21	18
7	57	45	36	31	53	42	34	29	36	30	26	30	25	22	25	21	19	16
8	53	40	33	27	49	38	31	26	32	27	23	27	23	20	23	19	17	14
9	49	37	29	24	45	34	28	23	30	24	20	25	21	18	21	18	15	13
10	46	34	27	22	43	32	25	20	27	22	18	23	19	16	19	16	14	12

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5891	5891	5891
5°	5902	5782	5800
10°	5860	5679	5670
15°	5791	5555	5505
20°	5697	5402	5339
25°	5585	5239	5135
30°	5449	5059	4950
35°	5322	4893	4780
40°	5194	4719	4609
45°	5048	4570	4458
50°	4910	4408	4325
55°	4742	4256	4166
60°	4560	4082	4006
65°	4369	3900	3826
70°	4153	3651	3640
75°	3809	3412	3412
80°	3363	3122	3163
85°	2945	2924	3085



TEST NUMBER: P333227-935

CATALOG NUMBER: S125DIP-S850D810U935-4F0-1E-UDD-D1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.2	1.6
10°-20°	244.8	4.7
20°-30°	364.1	6.9
30°-40°	431.3	8.2
40°-50°	445.9	8.5
50°-60°	410.8	7.8
60°-70°	332.0	6.3
70°-80°	222.4	4.2
80°-90°	117.2	2.2
90°-100°	122.6	2.3
100°-110°	218.8	4.2
110°-120°	321.8	6.1
120°-130°	399.6	7.6
130°-140°	435.3	8.3
140°-150°	420.5	8.0
150°-160°	351.8	6.7
160°-170°	233.9	4.5
170°-180°	81.8	1.6
0°-30°	695.2	13.3
0°-40°	1126.5	21.5
0°-60°	1983.2	37.8
0°-90°	2654.8	50.7
90°-120°	663.3	12.7
90°-150°	1918.7	36.6
90°-180°	2586.0	49.3
0°-180°	5241.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	912	912	912	912	912	
5°	912	910	904	911	910	86
15°	871	872	866	870	867	245
25°	791	794	789	792	788	364
35°	685	691	688	691	691	428
45°	564	574	578	584	586	435
55°	434	448	462	472	476	388
65°	299	319	341	354	358	296
75°	164	188	216	234	239	175
85°	49	79	110	129	137	52
90°	15	49	84	107	116	12
95°	55	81	117	141	149	56
105°	162	180	210	231	240	172
115°	296	305	329	344	349	292
125°	427	431	449	461	466	382
135°	552	556	563	574	576	426
145°	668	670	672	676	678	417
155°	763	763	764	766	763	351
165°	830	829	830	832	828	234
175°	863	861	860	864	860	82
180°	865	865	865	865	865	



TEST NUMBER: P333227-935

CATALOG NUMBER: S125DIP-S850D810U935-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1
2.5°	914.2	914.0	913.6	913.3	912.9	912.2	911.1	910.0	908.9	907.8	908.9
5°	912.1	911.7	911.3	910.9	910.5	909.6	908.2	906.8	905.4	904.0	905.6
7.5°	904.0	903.9	903.7	903.5	903.4	902.6	901.2	899.7	898.3	896.9	898.3
10°	896.9	896.9	896.9	896.9	896.9	896.1	894.5	892.9	891.3	889.8	891.1
12.5°	886.8	887.0	887.2	887.3	887.5	886.9	885.7	884.4	883.1	881.8	883.0
15°	871.0	871.2	871.3	871.5	871.8	871.2	869.8	868.4	866.9	865.6	866.8
17.5°	850.2	850.6	851.0	851.4	851.8	851.3	849.9	848.5	847.1	845.8	846.6
20°	835.2	835.6	835.9	836.4	836.8	836.3	834.9	833.5	832.1	830.7	831.3
22.5°	818.0	818.7	819.4	820.2	820.9	820.4	818.9	817.3	815.8	814.2	815.0
25°	791.3	791.9	792.6	793.2	793.8	793.4	792.3	791.1	789.9	788.7	789.5
27.5°	761.6	762.6	763.4	764.3	765.2	764.9	763.6	762.2	760.9	759.6	760.1
30°	739.5	740.7	741.9	743.0	744.2	744.2	743.0	741.9	740.7	739.5	739.9
32.5°	719.5	720.5	721.5	722.6	723.6	723.7	722.8	721.9	721.1	720.2	720.6
35°	684.9	686.4	687.8	689.1	690.5	691.0	690.3	689.7	689.1	688.5	689.1
37.5°	650.4	651.7	653.0	654.3	655.6	656.1	655.8	655.7	655.5	655.3	656.1
40°	626.8	628.4	630.0	631.6	633.2	633.9	633.7	633.5	633.3	633.1	633.9
42.5°	601.1	603.1	605.2	607.3	609.3	610.6	611.1	611.5	611.9	612.3	613.3
45°	564.2	566.5	568.6	570.8	573.0	574.5	575.6	576.5	577.6	578.5	580.0
47.5°	526.5	528.6	530.5	532.6	534.6	536.5	538.2	539.9	541.6	543.3	545.4
50°	500.8	502.9	505.1	507.3	509.5	511.7	513.8	516.1	518.2	520.4	522.6
52.5°	473.6	476.2	478.9	481.6	484.2	486.9	489.6	492.2	494.9	497.6	499.9
55°	433.7	436.9	440.1	443.2	446.4	449.6	452.8	456.0	459.1	462.3	464.5
57.5°	392.9	396.7	400.5	404.3	408.2	411.9	415.6	419.2	422.8	426.5	429.0
60°	365.8	369.7	373.7	377.6	381.6	385.6	389.6	393.6	397.5	401.5	404.5
62.5°	339.2	343.2	347.2	351.2	355.2	359.3	363.6	367.9	372.1	376.4	379.8
65°	298.7	303.2	307.8	312.4	316.9	321.6	326.4	331.1	336.0	340.7	343.7
67.5°	260.4	264.8	269.2	273.6	278.0	282.7	287.5	292.4	297.2	302.0	305.7
70°	232.5	237.0	241.6	246.2	250.8	255.6	260.8	266.0	271.1	276.3	280.1
72.5°	205.3	210.0	214.7	219.5	224.2	229.4	235.1	240.7	246.3	252.0	256.1
75°	164.5	169.7	174.9	180.0	185.2	191.0	197.3	203.7	210.0	216.4	220.3
77.5°	125.4	131.3	137.3	143.3	149.2	155.2	161.4	167.5	173.6	179.8	184.1
80°	101.1	107.0	113.0	118.9	124.9	131.2	138.0	144.7	151.5	158.3	162.6
82.5°	78.9	85.2	91.4	97.7	104.0	110.6	117.5	124.4	131.3	138.3	142.5
85°	49.2	55.7	62.3	68.9	75.4	82.1	89.1	96.1	103.1	109.9	114.3
87.5°	28.1	34.6	41.2	47.8	54.4	61.2	68.2	75.2	82.1	89.1	93.8
90°	15.0	22.6	30.0	37.6	45.2	52.9	60.7	68.4	76.3	84.1	89.5
92.5°	29.2	35.9	42.6	49.3	56.1	63.5	71.7	79.9	88.1	96.3	101.7
95°	55.4	60.9	66.3	71.8	77.2	84.1	92.4	100.7	108.8	117.1	122.5
97.5°	83.3	88.0	92.8	97.6	102.4	109.0	117.6	126.2	134.7	143.4	148.5
100°	104.1	108.2	112.4	116.6	120.8	127.0	135.3	143.6	152.0	160.2	165.7
102.5°	126.6	131.0	135.4	139.9	144.4	150.2	157.4	164.5	171.8	178.9	184.4
105°	161.5	165.5	169.4	173.3	177.3	182.6	189.5	196.4	203.2	210.1	215.0
107.5°	200.4	203.8	207.2	210.7	214.1	219.0	225.5	231.9	238.3	244.7	249.1
110°	227.1	230.2	233.3	236.5	239.6	244.2	250.2	256.2	262.3	268.2	272.5



TEST NUMBER: P333227-935

CATALOG NUMBER: S125DIP-S850D810U935-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	255.1	257.4	259.7	262.0	264.2	268.5	274.4	280.3	286.4	292.3	296.1
115°	295.6	297.6	299.5	301.5	303.5	307.2	312.7	318.1	323.6	329.1	332.5
117.5°	336.1	337.3	338.5	339.7	340.9	344.1	349.2	354.3	359.5	364.6	368.2
120°	362.0	363.3	364.6	366.0	367.4	370.4	375.1	379.8	384.5	389.3	392.6
122.5°	389.3	389.8	390.4	390.9	391.5	394.2	398.9	403.7	408.5	413.4	416.5
125°	427.1	427.7	428.4	429.1	429.9	432.3	436.4	440.5	444.6	448.8	451.7
127.5°	466.6	466.8	467.2	467.5	467.8	469.7	473.1	476.6	480.0	483.5	486.2
130°	490.8	491.4	491.9	492.4	493.0	494.8	497.9	501.0	504.0	507.1	509.8
132.5°	514.4	515.5	516.7	517.9	519.1	520.7	522.8	524.9	526.9	529.1	531.7
135°	552.5	553.2	553.9	554.7	555.3	556.5	558.0	559.5	561.0	562.6	565.2
137.5°	588.4	589.1	589.9	590.6	591.2	592.1	593.1	594.1	595.1	596.2	598.7
140°	610.9	611.7	612.3	613.1	613.9	614.6	615.2	615.9	616.5	617.2	619.7
142.5°	634.0	634.5	635.0	635.4	635.9	636.5	637.1	637.7	638.3	638.9	640.9
145°	668.1	668.5	668.9	669.3	669.7	670.1	670.5	671.0	671.5	671.9	672.9
147.5°	698.7	699.0	699.4	699.7	700.0	700.3	700.8	701.1	701.5	701.8	702.5
150°	719.7	719.5	719.5	719.3	719.1	719.4	720.0	720.6	721.2	721.8	721.8
152.5°	736.9	737.2	737.4	737.6	737.8	738.0	738.2	738.5	738.7	739.0	739.3
155°	763.4	763.4	763.4	763.4	763.4	763.5	763.7	763.9	764.0	764.1	764.7
157.5°	787.2	786.9	786.5	786.2	785.8	785.7	785.9	786.1	786.2	786.4	787.0
160°	801.2	800.7	800.3	799.9	799.4	799.3	799.4	799.5	799.7	799.9	800.5
162.5°	813.6	813.2	812.9	812.6	812.3	812.1	812.1	812.2	812.2	812.3	813.0
165°	830.2	829.8	829.6	829.2	829.0	828.9	829.0	829.1	829.3	829.5	830.1
167.5°	844.1	843.5	842.9	842.3	841.7	841.5	841.5	841.5	841.5	841.5	842.3
170°	851.7	851.1	850.5	849.9	849.3	848.9	848.9	848.9	848.9	848.9	849.9
172.5°	857.0	856.4	855.8	855.2	854.6	854.4	854.4	854.4	854.4	854.4	855.2
175°	863.2	862.5	861.9	861.3	860.7	860.4	860.4	860.4	860.4	860.4	861.3
177.5°	866.3	865.7	865.3	864.8	864.3	864.0	863.9	863.8	863.7	863.5	864.3
180°	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1



TEST NUMBER: P333227-935

CATALOG NUMBER: S125DIP-S850D810U935-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	912.1	912.1	912.1	912.1	912.1	912.1	912.1	912.1
2.5°	910.0	911.1	912.2	912.7	912.6	912.4	912.2	912.1
5°	907.2	908.8	910.4	911.1	910.9	910.7	910.5	910.3
7.5°	899.7	901.0	902.4	903.0	902.8	902.7	902.4	902.2
10°	892.5	893.9	895.3	895.9	895.7	895.5	895.3	895.1
12.5°	884.0	885.1	886.1	886.4	885.9	885.4	884.8	884.3
15°	868.0	869.2	870.4	870.6	869.8	868.9	868.1	867.4
17.5°	847.6	848.5	849.4	849.6	849.1	848.7	848.2	847.7
20°	831.9	832.5	833.1	833.4	833.4	833.4	833.4	833.4
22.5°	815.8	816.5	817.3	817.4	816.9	816.5	816.0	815.5
25°	790.3	791.1	791.9	791.8	790.7	789.8	788.8	787.8
27.5°	760.6	761.2	761.7	761.9	761.5	761.1	760.8	760.4
30°	740.3	740.7	741.1	741.2	741.0	740.8	740.6	740.4
32.5°	721.0	721.3	721.8	721.9	721.7	721.5	721.3	721.1
35°	689.7	690.3	691.0	691.2	691.2	691.2	691.2	691.2
37.5°	656.9	657.6	658.4	658.8	658.8	658.7	658.6	658.5
40°	634.6	635.5	636.3	636.9	637.2	637.7	638.1	638.4
42.5°	614.2	615.2	616.1	616.6	616.7	616.8	616.9	617.0
45°	581.3	582.7	584.1	584.9	585.1	585.3	585.5	585.7
47.5°	547.3	549.4	551.4	552.7	553.1	553.5	554.0	554.4
50°	524.8	527.0	529.2	530.5	531.2	531.8	532.4	533.0
52.5°	502.2	504.5	506.9	508.3	508.8	509.2	509.6	510.1
55°	466.7	468.9	471.1	472.5	473.3	474.2	474.9	475.7
57.5°	431.5	434.0	436.5	438.1	438.7	439.3	439.9	440.5
60°	407.4	410.4	413.5	415.2	415.8	416.4	417.0	417.6
62.5°	383.1	386.3	389.7	391.7	392.4	393.2	393.9	394.7
65°	346.6	349.7	352.6	354.5	355.3	356.1	356.9	357.7
67.5°	309.3	312.9	316.5	318.8	319.9	320.9	321.9	323.0
70°	283.9	287.7	291.4	293.9	295.1	296.3	297.5	298.7
72.5°	260.2	264.2	268.4	270.9	271.7	272.6	273.5	274.3
75°	224.4	228.3	232.3	234.8	235.7	236.8	237.7	238.8
77.5°	188.5	192.9	197.3	199.8	200.6	201.4	202.2	203.0
80°	167.0	171.4	175.7	178.3	179.2	179.9	180.7	181.5
82.5°	146.6	150.8	155.1	157.9	159.4	160.7	162.2	163.7
85°	118.7	123.1	127.5	130.4	132.1	133.6	135.3	136.8
87.5°	98.5	103.2	108.0	111.1	112.5	114.0	115.5	117.0
90°	94.7	100.0	105.4	108.9	110.8	112.6	114.4	116.3
92.5°	107.1	112.5	117.9	121.5	123.2	124.9	126.7	128.4
95°	127.9	133.4	138.8	142.3	144.0	145.8	147.4	149.1
97.5°	153.7	158.9	164.0	167.3	168.8	170.4	171.9	173.5
100°	171.3	176.8	182.3	185.8	187.4	188.8	190.3	191.7
102.5°	189.9	195.4	200.9	204.4	206.0	207.6	209.2	210.9
105°	219.8	224.7	229.5	232.9	234.8	236.6	238.4	240.3
107.5°	253.5	257.9	262.3	265.0	266.2	267.4	268.6	269.8
110°	276.7	280.9	285.2	287.8	289.1	290.3	291.6	292.8





TEST NUMBER: P333227-935

CATALOG NUMBER: S125DIP-S850D810U935-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	300.0	303.8	307.6	310.1	311.3	312.4	313.5	314.6
115°	336.0	339.4	342.8	345.0	346.0	347.2	348.2	349.2
117.5°	371.6	375.1	378.7	380.7	381.5	382.3	383.1	383.7
120°	396.1	399.4	402.8	404.8	405.4	406.0	406.6	407.2
122.5°	419.6	422.7	425.8	427.7	428.3	429.0	429.8	430.5
125°	454.5	457.4	460.3	462.2	463.0	463.8	464.7	465.5
127.5°	489.0	491.8	494.6	496.5	497.2	498.1	498.9	499.8
130°	512.4	515.1	517.6	519.4	520.0	520.7	521.4	522.1
132.5°	534.3	536.9	539.6	541.1	541.5	541.9	542.3	542.8
135°	567.7	570.3	572.9	574.5	574.8	575.2	575.6	576.0
137.5°	601.2	603.7	606.2	607.5	607.6	607.6	607.7	607.7
140°	622.2	624.6	627.1	628.4	628.4	628.4	628.5	628.5
142.5°	643.0	645.1	647.0	648.1	648.2	648.2	648.2	648.3
145°	673.9	674.9	675.9	676.6	676.9	677.3	677.6	678.0
147.5°	703.2	703.9	704.6	704.6	703.9	703.2	702.6	701.9
150°	721.8	721.8	721.8	721.7	721.6	721.5	721.3	721.3
152.5°	739.7	740.0	740.4	740.4	739.9	739.3	738.8	738.3
155°	765.3	765.9	766.5	766.5	765.7	765.0	764.2	763.4
157.5°	787.6	788.2	788.8	788.6	787.6	786.6	785.6	784.6
160°	801.1	801.6	802.2	802.2	801.4	800.6	799.9	799.2
162.5°	813.6	814.4	815.1	815.0	814.2	813.3	812.4	811.6
165°	830.7	831.3	831.8	831.7	830.8	829.9	829.0	828.1
167.5°	843.3	844.1	845.1	845.0	844.1	843.2	842.2	841.3
170°	850.8	851.7	852.6	852.5	851.4	850.4	849.4	848.3
172.5°	856.2	857.0	858.0	858.0	857.0	856.1	855.1	854.2
175°	862.2	863.2	864.0	863.9	862.9	861.9	860.8	859.8
177.5°	865.0	865.6	866.4	866.3	865.5	864.7	863.8	863.0
180°	865.1	865.1	865.1	865.1	865.1	865.1	865.1	865.1

(END OF REPORT)