

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: P333217-940

Luminaire Tested: **S125DIP-S850D590U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333217-940  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIP-S850D590U940-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 590 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5034.8 lumens  
Efficiency: N/A  
Efficacy: 124.9 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

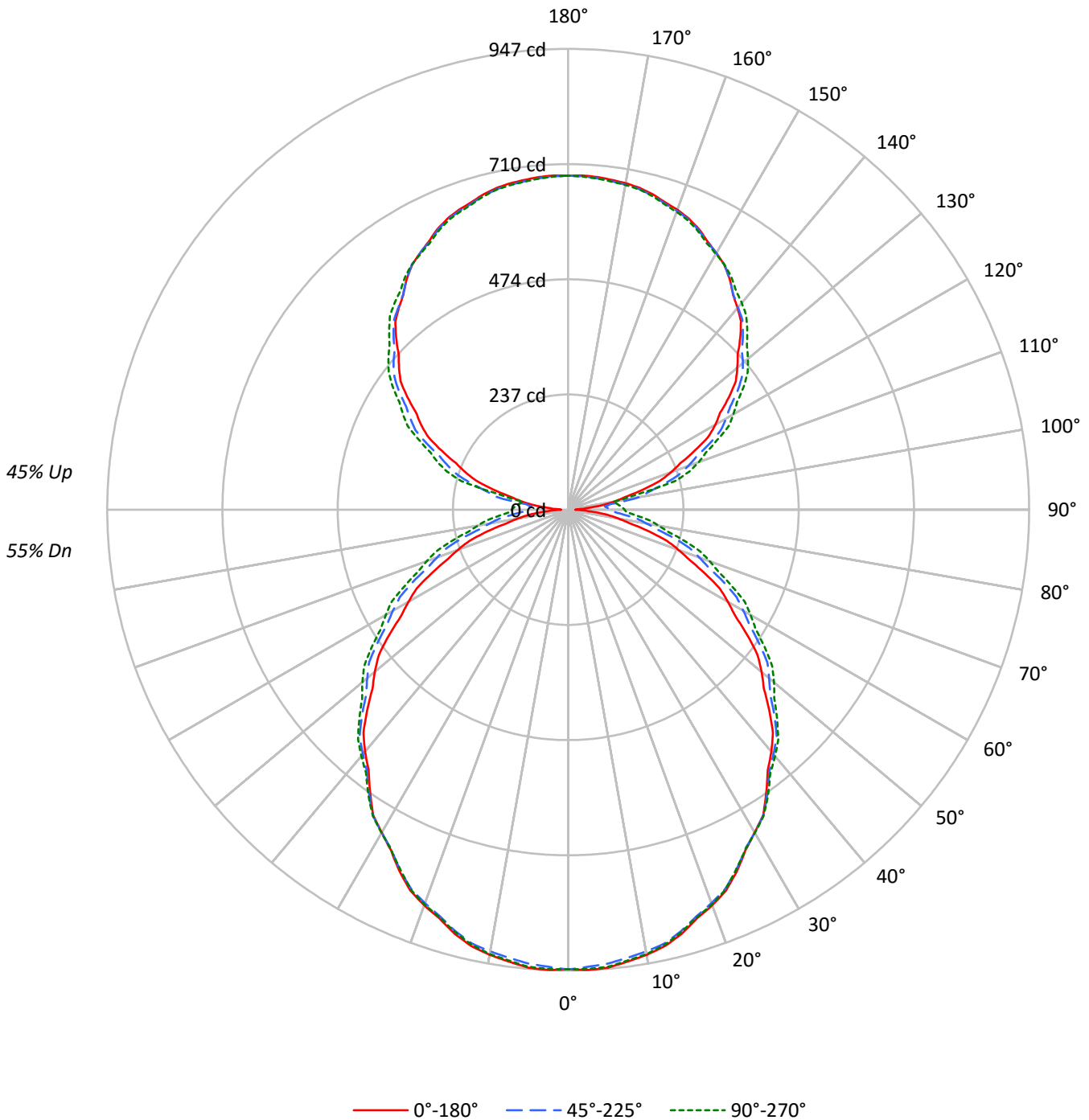
Input Watts (W): 40.3  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333217-940

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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	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	55
1	98	93	89	85	91	87	83	80	74	71	69	63	61	59	52	51	49	44
2	89	81	74	69	82	75	70	65	64	60	56	55	51	48	45	43	41	36
3	81	71	63	57	75	66	59	54	57	51	47	48	44	41	40	37	34	31
4	74	63	54	48	68	58	51	45	50	44	40	43	38	35	36	32	30	26
5	68	56	47	41	63	52	44	39	45	39	34	38	34	30	32	28	26	22
6	62	50	42	36	58	47	39	34	40	34	30	34	30	26	29	25	22	20
7	58	45	37	31	53	42	35	29	37	31	26	31	27	23	26	23	20	17
8	54	41	33	27	50	38	31	26	33	27	23	29	24	20	24	21	18	15
9	50	37	30	24	46	35	28	23	31	25	21	26	22	18	22	19	16	14
10	47	34	27	22	43	32	25	21	28	23	19	24	20	17	21	17	15	13

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

	0°	45°	90°
0°	6101	6101	6101
5°	6113	5988	6007
10°	6069	5881	5872
15°	5998	5753	5701
20°	5900	5595	5529
25°	5784	5425	5318
30°	5644	5239	5126
35°	5513	5068	4951
40°	5379	4888	4773
45°	5228	4733	4617
50°	5084	4566	4479
55°	4912	4408	4315
60°	4722	4227	4149
65°	4525	4039	3961
70°	4301	3780	3769
75°	3945	3533	3533
80°	3483	3233	3276
85°	3046	3031	3195



TEST NUMBER: P333217-940

CATALOG NUMBER: S125DIP-S850D590U940-4F0-1E-UDD-D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.3	1.8
10°-20°	253.6	5.0
20°-30°	377.1	7.5
30°-40°	446.7	8.9
40°-50°	461.8	9.2
50°-60°	425.4	8.5
60°-70°	343.9	6.8
70°-80°	230.3	4.6
80°-90°	120.9	2.4
90°-100°	92.0	1.8
100°-110°	203.1	4.0
110°-120°	311.9	6.2
120°-130°	376.6	7.5
130°-140°	393.0	7.8
140°-150°	362.9	7.2
150°-160°	292.2	5.8
160°-170°	189.0	3.8
170°-180°	65.2	1.3
0°-30°	720.0	14.3
0°-40°	1166.7	23.2
0°-60°	2053.9	40.8
0°-90°	2749.0	54.6
90°-120°	607.0	12.1
90°-150°	1739.5	34.5
90°-180°	2286.0	45.4
0°-180°	5034.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	945	945	945	945	945	
5°	945	942	936	943	943	90
15°	902	903	896	902	898	254
25°	820	822	817	820	816	377
35°	709	715	713	716	716	444
45°	584	594	599	605	607	451
55°	449	464	479	489	493	401
65°	309	331	353	366	370	307
75°	170	195	224	242	247	181
85°	51	82	114	134	142	54
90°	15	49	84	107	116	11
95°	41	63	76	98	105	46
105°	158	175	202	220	227	167
115°	286	296	320	334	337	284
125°	403	407	424	436	440	360
135°	500	502	508	518	520	385
145°	578	578	578	583	584	361
155°	636	633	634	635	631	293
165°	671	668	668	671	667	189
175°	686	683	684	687	683	65
180°	686	686	686	686	686	



TEST NUMBER: P333217-940

CATALOG NUMBER: S125DIP-S850D590U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	944.6	944.6	944.6	944.6	944.6	944.6	944.6	944.6	944.6	944.6	944.6
2.5°	946.8	946.6	946.2	945.8	945.5	944.8	943.6	942.4	941.3	940.1	941.3
5°	944.6	944.2	943.8	943.3	943.0	942.0	940.6	939.1	937.7	936.3	937.9
7.5°	936.3	936.1	935.9	935.8	935.6	934.8	933.4	931.8	930.3	928.9	930.3
10°	928.9	928.9	928.9	928.9	928.9	928.1	926.4	924.8	923.1	921.5	922.9
12.5°	918.5	918.6	918.8	919.0	919.2	918.6	917.3	916.0	914.6	913.3	914.4
15°	902.1	902.2	902.4	902.6	902.9	902.2	900.8	899.4	897.9	896.4	897.7
17.5°	880.6	880.9	881.4	881.7	882.2	881.6	880.2	878.8	877.4	875.9	876.8
20°	865.0	865.4	865.8	866.2	866.7	866.1	864.7	863.3	861.7	860.3	860.9
22.5°	847.2	847.9	848.6	849.4	850.2	849.7	848.1	846.5	844.9	843.3	844.1
25°	819.6	820.2	820.8	821.4	822.1	821.7	820.6	819.3	818.1	816.8	817.6
27.5°	788.8	789.8	790.7	791.6	792.5	792.2	790.9	789.4	788.0	786.7	787.2
30°	765.9	767.1	768.4	769.5	770.8	770.8	769.5	768.4	767.1	765.9	766.3
32.5°	745.1	746.2	747.3	748.3	749.4	749.5	748.6	747.7	746.8	745.9	746.3
35°	709.4	710.9	712.3	713.7	715.2	715.6	715.0	714.3	713.7	713.1	713.7
37.5°	673.6	674.9	676.3	677.6	678.9	679.5	679.2	679.0	678.9	678.7	679.5
40°	649.2	650.9	652.5	654.2	655.8	656.5	656.3	656.1	655.9	655.7	656.5
42.5°	622.5	624.6	626.8	628.9	631.1	632.4	632.8	633.3	633.7	634.2	635.2
45°	584.3	586.7	588.9	591.1	593.4	595.0	596.1	597.1	598.2	599.1	600.7
47.5°	545.3	547.4	549.5	551.6	553.7	555.6	557.4	559.2	560.9	562.7	564.8
50°	518.6	520.8	523.2	525.4	527.6	529.9	532.2	534.5	536.7	539.0	541.3
52.5°	490.4	493.2	496.0	498.7	501.5	504.3	507.0	509.8	512.6	515.3	517.7
55°	449.2	452.5	455.8	459.1	462.4	465.7	469.0	472.3	475.5	478.8	481.1
57.5°	406.9	410.9	414.8	418.7	422.8	426.6	430.4	434.2	437.9	441.8	444.3
60°	378.8	382.9	387.0	391.1	395.2	399.4	403.5	407.6	411.7	415.8	418.9
62.5°	351.3	355.4	359.6	363.7	367.8	372.1	376.6	381.0	385.4	389.9	393.3
65°	309.3	314.1	318.8	323.5	328.2	333.1	338.0	343.0	347.9	352.8	356.0
67.5°	269.7	274.3	278.8	283.4	287.9	292.7	297.7	302.8	307.8	312.8	316.6
70°	240.8	245.5	250.2	255.0	259.8	264.7	270.1	275.4	280.8	286.1	290.1
72.5°	212.7	217.5	222.4	227.3	232.2	237.6	243.4	249.3	255.1	261.0	265.2
75°	170.4	175.8	181.1	186.5	191.8	197.8	204.4	211.0	217.5	224.1	228.2
77.5°	129.8	136.0	142.2	148.4	154.5	160.8	167.1	173.4	179.8	186.2	190.6
80°	104.7	110.8	117.0	123.1	129.4	135.9	142.9	149.9	156.9	163.9	168.4
82.5°	81.7	88.2	94.7	101.2	107.7	114.5	121.7	128.9	136.0	143.2	147.6
85°	50.9	57.7	64.6	71.3	78.1	85.1	92.3	99.5	106.7	113.9	118.4
87.5°	29.0	35.8	42.5	49.3	56.1	63.0	70.2	77.3	84.4	91.7	96.5
90°	15.3	22.8	30.3	37.8	45.3	53.0	60.7	68.5	76.3	84.1	89.3
92.5°	21.1	26.7	32.1	37.5	43.0	49.7	57.5	65.4	73.2	81.1	86.2
95°	41.0	46.0	51.1	56.1	61.1	64.9	67.7	70.4	73.0	75.7	80.9
97.5°	71.4	76.9	82.3	87.7	93.2	95.1	93.3	91.5	89.8	88.0	89.2
100°	95.1	99.8	104.5	109.1	113.8	119.7	126.7	133.8	140.7	147.8	135.3
102.5°	119.2	123.7	128.0	132.5	137.0	142.5	149.2	155.9	162.6	169.2	170.2
105°	157.9	161.7	165.4	169.2	172.9	177.8	184.0	190.2	196.4	202.5	206.7
107.5°	198.1	200.9	203.7	206.5	209.3	213.7	219.9	226.0	232.2	238.4	242.5
110°	224.3	226.7	229.2	231.7	234.1	238.4	244.3	250.3	256.3	262.3	265.8



TEST NUMBER: P333217-940

CATALOG NUMBER: S125DIP-S850D590U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	249.5	251.7	254.0	256.2	258.4	262.4	268.1	273.9	279.6	285.3	288.7
115°	286.4	288.4	290.4	292.4	294.4	298.2	303.6	309.1	314.5	320.0	323.2
117.5°	324.7	325.6	326.5	327.4	328.3	331.5	337.1	342.5	348.0	353.5	356.4
120°	349.0	349.6	350.1	350.5	351.1	353.8	358.9	364.0	369.1	374.2	377.5
122.5°	369.9	370.6	371.3	372.0	372.7	375.5	380.2	385.0	389.7	394.4	397.5
125°	403.1	403.7	404.2	404.8	405.5	407.8	411.9	416.0	420.1	424.3	427.0
127.5°	434.0	434.4	434.7	435.1	435.4	437.3	440.6	443.9	447.2	450.5	453.3
130°	453.5	453.9	454.2	454.6	455.0	456.6	459.7	462.6	465.7	468.6	471.2
132.5°	472.3	473.0	473.6	474.2	474.7	476.1	478.0	480.0	482.0	484.0	486.8
135°	499.9	500.4	500.9	501.3	501.9	502.7	503.9	505.1	506.3	507.5	510.0
137.5°	525.3	525.7	526.1	526.6	527.0	527.4	527.9	528.4	529.0	529.4	531.9
140°	541.3	541.4	541.7	541.9	542.2	542.2	542.3	542.5	542.6	542.7	545.2
142.5°	556.2	556.2	556.2	556.2	556.2	556.2	556.4	556.7	556.9	557.1	559.0
145°	578.4	578.4	578.4	578.5	578.5	578.5	578.5	578.5	578.5	578.5	579.6
147.5°	596.7	596.7	596.6	596.6	596.6	596.6	596.7	596.9	597.0	597.2	597.6
150°	608.9	608.8	608.5	608.3	608.1	608.1	608.3	608.5	608.8	608.9	609.2
152.5°	620.8	620.3	619.8	619.3	618.8	618.7	618.8	619.1	619.3	619.6	619.8
155°	636.0	635.3	634.6	633.9	633.2	633.0	633.2	633.5	633.6	633.9	634.3
157.5°	647.6	647.2	646.8	646.4	646.0	645.9	645.9	645.9	645.9	646.0	646.3
160°	655.8	655.1	654.4	653.7	653.1	652.8	652.9	653.0	653.1	653.3	653.7
162.5°	662.3	661.6	660.9	660.2	659.6	659.3	659.4	659.5	659.6	659.8	660.4
165°	671.0	670.4	669.7	669.1	668.3	668.1	668.2	668.2	668.4	668.5	669.1
167.5°	677.5	676.9	676.2	675.5	674.8	674.5	674.6	674.7	674.8	674.9	675.7
170°	681.3	680.5	679.7	678.9	678.1	677.7	677.8	678.0	678.1	678.1	679.0
172.5°	683.7	682.9	682.1	681.3	680.5	680.2	680.4	680.6	680.8	681.0	681.8
175°	686.3	685.6	684.9	684.3	683.6	683.3	683.4	683.6	683.7	683.8	684.7
177.5°	687.5	687.0	686.4	685.9	685.4	685.1	685.2	685.3	685.4	685.5	686.2
180°	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3



TEST NUMBER: P333217-940

CATALOG NUMBER: S125DIP-S850D590U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	944.6	944.6	944.6	944.6	944.6	944.6	944.6	944.6
2.5°	942.4	943.6	944.8	945.3	945.1	944.9	944.8	944.6
5°	939.6	941.2	942.9	943.6	943.3	943.2	943.0	942.8
7.5°	931.7	933.2	934.6	935.2	935.0	934.9	934.6	934.4
10°	924.3	925.8	927.2	927.8	927.6	927.5	927.2	927.0
12.5°	915.5	916.7	917.7	918.0	917.5	916.9	916.4	915.9
15°	898.9	900.2	901.4	901.6	900.8	899.9	899.1	898.3
17.5°	877.8	878.8	879.7	879.9	879.4	879.0	878.4	878.0
20°	861.6	862.2	862.8	863.1	863.1	863.1	863.1	863.1
22.5°	844.9	845.6	846.4	846.6	846.1	845.6	845.1	844.6
25°	818.5	819.3	820.1	820.0	818.9	818.0	816.9	815.9
27.5°	787.7	788.4	788.9	789.1	788.6	788.3	787.9	787.6
30°	766.7	767.1	767.5	767.7	767.4	767.2	767.0	766.8
32.5°	746.7	747.1	747.5	747.6	747.4	747.3	747.0	746.8
35°	714.3	715.0	715.6	715.9	715.9	715.9	715.9	715.9
37.5°	680.3	681.1	681.9	682.3	682.2	682.2	682.1	682.0
40°	657.3	658.2	659.0	659.6	660.0	660.4	660.8	661.2
42.5°	636.1	637.1	638.1	638.6	638.7	638.8	638.9	639.0
45°	602.1	603.5	604.9	605.7	606.0	606.2	606.4	606.6
47.5°	566.9	569.0	571.1	572.4	572.8	573.3	573.7	574.2
50°	543.5	545.8	548.0	549.5	550.1	550.7	551.3	552.0
52.5°	520.1	522.5	525.0	526.5	526.9	527.4	527.8	528.2
55°	483.3	485.6	487.9	489.4	490.2	491.1	491.9	492.7
57.5°	446.9	449.5	452.1	453.7	454.3	455.0	455.6	456.2
60°	422.0	425.1	428.2	430.0	430.6	431.2	431.9	432.5
62.5°	396.7	400.1	403.6	405.6	406.4	407.2	408.0	408.8
65°	359.0	362.1	365.2	367.1	368.0	368.8	369.6	370.4
67.5°	320.3	324.0	327.8	330.2	331.3	332.3	333.4	334.5
70°	294.0	297.9	301.8	304.3	305.6	306.8	308.1	309.3
72.5°	269.5	273.7	277.9	280.5	281.4	282.3	283.2	284.1
75°	232.4	236.5	240.6	243.2	244.2	245.2	246.2	247.3
77.5°	195.2	199.7	204.3	207.0	207.8	208.6	209.4	210.3
80°	173.0	177.5	182.0	184.7	185.6	186.4	187.2	188.0
82.5°	151.9	156.2	160.6	163.5	165.1	166.5	168.0	169.5
85°	123.0	127.5	132.1	135.1	136.8	138.4	140.1	141.7
87.5°	101.3	106.2	111.0	114.2	115.7	117.3	118.8	120.2
90°	94.7	100.0	105.3	108.8	110.6	112.4	114.1	115.9
92.5°	91.4	96.5	101.7	105.0	106.6	108.3	109.9	111.4
95°	86.0	91.0	96.1	99.4	100.9	102.3	103.7	105.1
97.5°	90.2	91.4	92.6	93.8	95.2	96.6	98.0	99.4
100°	122.8	110.2	97.7	91.8	92.6	93.4	94.2	95.0
102.5°	171.2	172.2	173.2	170.4	163.9	157.5	151.1	144.5
105°	210.8	214.9	219.0	221.8	223.0	224.4	225.7	227.0
107.5°	246.6	250.7	254.8	257.3	258.2	259.1	260.1	261.0
110°	269.5	273.0	276.6	279.1	280.7	282.2	283.8	285.3





TEST NUMBER: P333217-940

CATALOG NUMBER: S125DIP-S850D590U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	292.0	295.3	298.6	301.0	302.2	303.5	304.8	306.0
115°	326.5	329.8	333.1	334.9	335.5	336.0	336.6	337.2
117.5°	359.4	362.2	365.2	367.1	368.3	369.3	370.5	371.6
120°	380.7	384.0	387.3	389.2	389.9	390.6	391.2	391.9
122.5°	400.6	403.7	406.8	408.7	409.2	409.8	410.4	411.0
125°	429.9	432.7	435.6	437.4	438.0	438.7	439.4	440.1
127.5°	456.1	458.9	461.7	463.2	463.6	464.0	464.3	464.7
130°	473.7	476.3	478.8	480.3	480.7	481.3	481.7	482.1
132.5°	489.6	492.4	495.3	496.8	497.1	497.4	497.7	498.0
135°	512.4	514.9	517.3	518.7	519.1	519.4	519.8	520.1
137.5°	534.4	536.8	539.3	540.6	540.9	541.2	541.4	541.6
140°	547.6	550.1	552.6	553.9	554.1	554.2	554.4	554.6
142.5°	561.0	563.0	565.0	566.1	566.1	566.3	566.5	566.6
145°	580.8	581.8	583.0	583.6	583.8	584.0	584.1	584.2
147.5°	598.1	598.6	599.1	599.1	598.6	598.2	597.7	597.3
150°	609.4	609.7	609.8	609.7	608.9	608.2	607.5	606.8
152.5°	620.0	620.3	620.5	620.2	619.4	618.7	617.9	617.1
155°	634.6	634.9	635.3	635.0	634.1	633.2	632.3	631.3
157.5°	646.7	647.0	647.4	647.1	646.2	645.2	644.4	643.5
160°	654.2	654.6	655.1	654.8	653.9	653.0	652.1	651.2
162.5°	661.0	661.6	662.3	662.1	661.1	660.1	659.2	658.1
165°	669.9	670.6	671.2	671.1	670.2	669.3	668.4	667.4
167.5°	676.5	677.3	678.1	678.1	677.1	676.0	675.0	674.0
170°	680.0	680.9	681.8	681.7	680.7	679.7	678.7	677.7
172.5°	682.6	683.5	684.3	684.2	683.1	682.2	681.1	680.1
175°	685.5	686.4	687.4	687.3	686.3	685.3	684.3	683.2
177.5°	686.8	687.4	688.0	688.0	687.2	686.5	685.8	685.1
180°	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3

(END OF REPORT)