

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: P332188-927

Luminaire Tested: **S123DIW-S1000D755U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332188-927  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123DIW-S1000D755U927-4F0-1E-UDD-D  
Description: DEFINE 3 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 755 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5721.0 lumens  
Efficiency: N/A  
Efficacy: 106.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

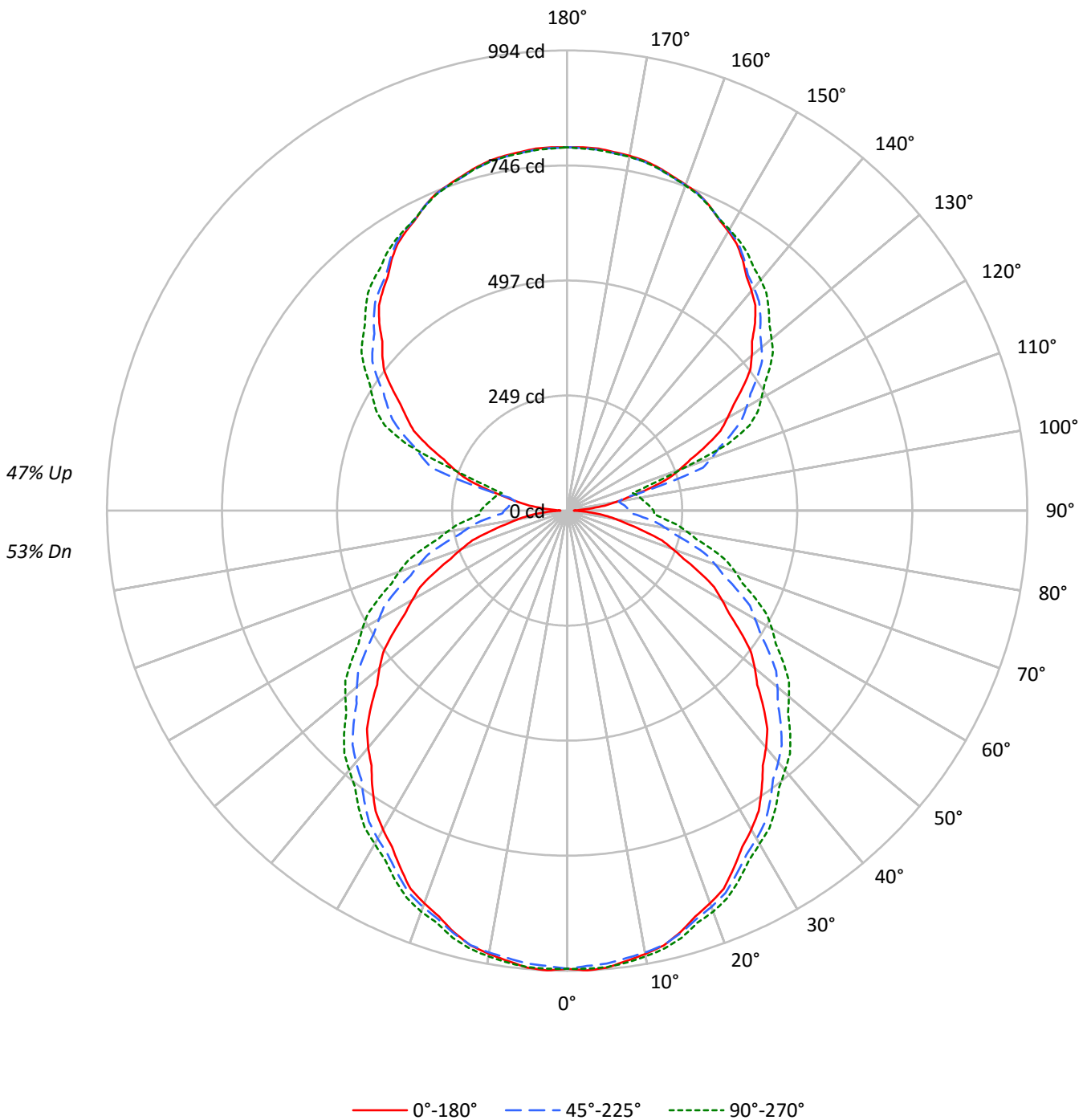
Input Watts (W): 53.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	85	85	85	72	72	72	59	59	59	53
1	97	93	88	84	90	86	82	79	73	70	68	61	59	57	50	49	48	43
2	88	80	74	68	81	74	69	64	63	59	55	53	50	47	44	41	39	35
3	80	70	62	56	74	65	58	53	56	50	46	47	43	39	38	36	33	29
4	73	62	54	47	67	57	50	44	49	43	39	41	37	33	34	31	28	25
5	67	55	46	40	62	51	44	38	44	38	33	37	32	29	31	27	24	21
6	62	49	41	35	57	46	38	33	39	33	29	33	29	25	28	24	21	18
7	57	44	36	30	53	41	34	29	36	30	25	30	26	22	25	22	19	16
8	53	40	32	27	49	38	30	25	32	27	22	28	23	20	23	20	17	14
9	49	37	29	24	46	34	27	23	30	24	20	25	21	18	21	18	15	13
10	46	34	26	21	43	32	25	20	27	22	18	24	19	16	20	16	14	12

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

	0°	45°	90°
0°	10654	10654	10654
5°	10687	10385	10392
10°	10592	10146	10095
15°	10455	9874	9773
20°	10260	9565	9418
25°	10019	9208	9043
30°	9772	8886	8665
35°	9496	8547	8362
40°	9231	8238	8039
45°	8938	7941	7779
50°	8650	7648	7494
55°	8332	7348	7238
60°	8020	7044	6974
65°	7702	6718	6661
70°	7222	6352	6341
75°	6614	5933	6016
80°	5915	5522	5642
85°	5267	5241	5428



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.8	1.6
10°-20°	267.5	4.7
20°-30°	400.0	7.0
30°-40°	477.7	8.4
40°-50°	499.9	8.7
50°-60°	469.1	8.2
60°-70°	391.8	6.8
70°-80°	280.3	4.9
80°-90°	169.3	3.0
90°-100°	133.4	2.3
100°-110°	213.0	3.7
110°-120°	378.0	6.6
120°-130°	445.3	7.8
130°-140°	457.5	8.0
140°-150°	418.3	7.3
150°-160°	335.2	5.9
160°-170°	216.3	3.8
170°-180°	74.5	1.3
0°-30°	761.3	13.3
0°-40°	1239.1	21.7
0°-60°	2208.0	38.6
0°-90°	3049.4	53.3
90°-120°	724.5	12.7
90°-150°	2045.6	35.8
90°-180°	2672.0	46.7
0°-180°	5721.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	990	990	990	990	990	
5°	991	988	982	990	990	94
15°	943	946	946	956	955	266
25°	852	862	866	879	880	392
35°	733	750	764	780	785	458
45°	599	625	652	672	681	462
55°	457	493	532	560	569	409
65°	316	358	405	436	448	312
75°	171	222	276	310	325	183
85°	53	107	164	199	211	55
90°	15	74	136	173	187	11
95°	48	68	125	161	173	53
105°	182	212	208	140	146	193
115°	331	349	392	422	434	327
125°	463	469	501	524	533	413
135°	574	577	591	611	615	442
145°	661	664	665	675	679	413
155°	727	726	726	729	726	335
165°	767	765	764	768	765	216
175°	785	782	782	786	782	75
180°	785	785	785	785	785	



TEST NUMBER: P332188-927

CATALOG NUMBER: S123DIW-S1000D755U927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8
2.5°	994.1	993.6	992.9	992.4	991.8	990.7	989.2	987.7	986.1	984.6	986.1
5°	990.9	990.4	989.9	989.4	989.0	988.0	986.6	985.1	983.7	982.2	984.1
7.5°	981.1	981.3	981.4	981.4	981.5	980.9	979.5	978.1	976.7	975.3	977.7
10°	972.6	973.0	973.5	974.0	974.5	974.1	972.9	971.7	970.5	969.3	971.7
12.5°	962.2	962.8	963.5	964.2	964.9	964.8	964.0	963.1	962.3	961.6	963.8
15°	943.4	944.1	944.8	945.5	946.3	946.5	946.3	946.0	945.8	945.5	948.0
17.5°	919.7	921.1	922.6	924.0	925.4	926.1	926.1	925.9	925.8	925.7	927.9
20°	902.5	903.9	905.3	906.7	908.2	909.2	909.7	910.1	910.6	911.1	913.2
22.5°	884.3	885.7	887.2	888.7	890.1	891.1	891.8	892.5	893.2	893.8	896.5
25°	851.8	854.1	856.6	859.0	861.3	862.9	863.6	864.4	865.1	865.8	868.9
27.5°	819.0	821.7	824.4	827.2	829.9	832.0	833.6	835.1	836.6	838.2	840.9
30°	795.7	798.8	801.9	805.0	808.2	810.6	812.6	814.5	816.4	818.3	821.3
32.5°	769.8	773.3	776.8	780.3	783.8	786.8	789.3	791.8	794.3	796.8	799.9
35°	733.2	737.0	740.8	744.7	748.5	751.9	755.1	758.2	761.3	764.5	768.0
37.5°	694.3	698.7	703.0	707.3	711.6	715.7	719.5	723.3	727.1	731.0	735.1
40°	668.4	672.8	677.1	681.4	685.7	690.3	695.1	699.9	704.6	709.5	713.5
42.5°	640.0	645.3	650.5	655.8	661.1	666.2	671.2	676.2	681.2	686.2	690.6
45°	599.4	605.2	611.0	616.7	622.5	628.4	634.3	640.3	646.3	652.3	656.9
47.5°	557.0	563.5	570.1	576.6	583.0	589.8	596.6	603.5	610.3	617.2	622.3
50°	529.4	536.1	542.8	549.5	556.2	563.3	570.7	578.1	585.6	593.0	598.5
52.5°	500.0	507.2	514.3	521.3	528.5	536.1	544.3	552.5	560.6	568.9	574.6
55°	457.2	465.1	472.9	480.9	488.8	497.0	505.6	514.3	522.9	531.6	538.1
57.5°	415.3	423.6	431.8	440.1	448.3	457.2	466.6	476.0	485.4	494.9	501.4
60°	386.0	394.6	403.2	411.9	420.5	429.7	439.5	449.4	459.2	469.1	475.7
62.5°	358.4	367.2	376.0	384.8	393.6	403.3	413.7	424.1	434.4	444.9	451.5
65°	315.9	325.3	334.6	344.0	353.3	363.2	373.8	384.3	394.8	405.4	412.6
67.5°	272.7	282.7	292.6	302.5	312.4	322.8	333.5	344.3	355.0	365.8	373.6
70°	242.6	252.9	263.2	273.5	283.8	294.7	306.2	317.7	329.2	340.7	348.4
72.5°	215.0	225.3	235.6	245.9	256.2	267.3	279.2	291.0	302.9	314.8	322.7
75°	171.4	182.7	193.9	205.3	216.5	228.1	240.1	252.1	264.0	276.0	283.9
77.5°	133.5	144.8	156.2	167.5	178.9	190.6	202.7	214.8	226.9	238.9	247.2
80°	106.7	118.5	130.2	142.0	153.7	165.8	178.2	190.8	203.2	215.6	223.8
82.5°	83.4	95.4	107.3	119.2	131.2	143.5	156.1	168.7	181.4	194.1	202.2
85°	52.8	64.8	76.8	88.8	100.8	113.1	125.8	138.5	151.1	163.9	172.1
87.5°	28.8	41.0	53.2	65.4	77.6	89.9	102.5	115.0	127.6	140.1	148.4
90°	14.6	27.6	40.6	53.7	66.8	80.2	94.1	108.1	121.9	135.9	144.5
92.5°	24.0	34.2	44.4	54.7	64.9	76.7	90.0	103.3	116.5	129.8	138.6
95°	47.5	51.5	55.5	59.5	63.5	72.2	85.3	98.5	111.6	124.8	133.2
97.5°	82.1	88.1	94.1	100.2	106.2	110.2	112.1	114.0	115.9	117.7	126.0
100°	108.2	118.5	128.7	139.0	149.2	149.8	140.6	131.4	122.2	113.0	121.0
102.5°	138.2	146.9	155.7	164.5	173.2	172.0	160.7	149.5	138.2	127.0	130.6
105°	182.4	189.5	196.7	203.8	211.0	214.0	212.6	211.3	209.8	208.5	192.3
107.5°	227.9	233.9	240.0	246.0	252.0	260.9	272.4	284.1	295.7	307.3	296.9
110°	258.3	263.6	269.0	274.3	279.7	287.9	298.9	309.9	320.9	331.9	333.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	288.1	292.6	297.1	301.6	306.0	313.6	324.2	334.9	345.5	356.1	362.3
115°	331.3	334.9	338.6	342.2	345.9	352.6	362.3	372.2	382.0	391.7	398.8
117.5°	373.8	376.5	379.3	382.0	384.8	390.5	399.2	407.8	416.5	425.2	432.0
120°	399.6	401.9	404.3	406.6	409.0	414.3	422.6	430.9	439.2	447.5	454.1
122.5°	426.6	428.2	429.8	431.3	432.9	437.7	445.8	453.8	461.8	469.8	475.8
125°	462.6	463.6	464.7	465.7	466.8	471.0	478.5	485.9	493.4	500.8	506.1
127.5°	498.5	499.3	500.1	500.9	501.7	505.3	511.7	518.0	524.3	530.8	535.9
130°	520.9	521.7	522.4	523.2	524.0	527.1	532.4	537.7	543.0	548.3	553.4
132.5°	541.5	542.5	543.4	544.5	545.4	548.0	552.3	556.5	560.8	565.1	569.9
135°	574.0	574.6	575.1	575.6	576.2	578.0	581.1	584.3	587.5	590.7	595.3
137.5°	601.7	602.6	603.4	604.2	605.0	606.3	608.0	609.7	611.6	613.3	617.7
140°	619.6	620.4	621.2	621.9	622.7	623.6	624.7	625.8	626.9	628.0	632.2
142.5°	636.8	637.4	638.0	638.6	639.1	639.8	640.2	640.8	641.4	641.8	645.5
145°	661.0	661.6	662.3	663.0	663.6	664.1	664.3	664.6	664.9	665.1	667.3
147.5°	682.6	683.2	683.8	684.4	685.0	685.4	685.7	686.0	686.2	686.4	687.3
150°	696.6	697.0	697.4	697.8	698.2	698.5	698.8	699.0	699.3	699.5	699.8
152.5°	709.2	709.4	709.6	709.7	710.0	710.1	710.3	710.4	710.6	710.7	711.1
155°	726.9	726.7	726.4	726.1	725.9	725.8	726.0	726.1	726.2	726.4	727.0
157.5°	740.7	740.7	740.6	740.6	740.6	740.5	740.4	740.2	740.1	740.0	740.8
160°	749.1	748.9	748.8	748.7	748.5	748.5	748.3	748.1	748.1	747.9	748.7
162.5°	757.0	756.7	756.3	756.0	755.7	755.4	755.3	755.2	755.0	754.9	755.8
165°	766.6	766.2	765.8	765.4	765.0	764.8	764.6	764.5	764.4	764.2	765.2
167.5°	774.0	773.5	773.0	772.5	772.0	771.7	771.7	771.7	771.7	771.7	772.7
170°	778.2	777.7	777.2	776.7	776.2	775.9	775.9	775.9	775.9	775.9	776.9
172.5°	781.0	780.4	779.7	779.2	778.6	778.2	778.4	778.5	778.6	778.7	779.7
175°	784.7	783.9	783.3	782.7	782.0	781.8	781.9	782.0	782.2	782.3	783.2
177.5°	785.5	785.1	784.5	784.0	783.5	783.3	783.4	783.5	783.6	783.7	784.5
180°	784.7	784.7	784.7	784.7	784.7	784.7	784.7	784.7	784.7	784.7	784.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	989.8	989.8	989.8	989.8	989.8	989.8	989.8	989.8
2.5°	987.7	989.2	990.7	991.4	991.2	991.0	990.9	990.6
5°	986.0	988.0	989.9	990.7	990.5	990.2	990.0	989.8
7.5°	980.1	982.5	984.9	986.0	985.7	985.4	985.1	984.8
10°	974.1	976.4	978.9	979.9	979.4	978.9	978.4	977.9
12.5°	965.9	968.1	970.3	971.2	970.7	970.3	969.8	969.3
15°	950.4	952.8	955.1	956.2	956.0	955.8	955.5	955.3
17.5°	930.0	932.2	934.4	935.3	934.9	934.6	934.3	933.9
20°	915.4	917.5	919.7	920.9	921.1	921.4	921.6	921.9
22.5°	899.3	902.0	904.8	906.0	905.9	905.8	905.6	905.5
25°	872.0	875.1	878.2	879.8	879.8	879.8	879.8	879.8
27.5°	843.5	846.2	848.9	850.3	850.6	850.7	851.0	851.1
30°	824.1	827.0	829.8	831.3	831.3	831.3	831.3	831.3
32.5°	803.0	806.0	809.1	810.9	811.4	812.0	812.6	813.2
35°	771.6	775.2	778.8	781.1	782.0	783.0	783.9	784.9
37.5°	739.2	743.2	747.3	749.7	750.5	751.2	752.0	752.8
40°	717.6	721.7	725.7	728.3	729.2	730.2	731.1	732.1
42.5°	695.1	699.5	704.0	706.9	708.2	709.6	710.9	712.3
45°	661.4	666.0	670.5	673.8	675.7	677.6	679.5	681.4
47.5°	627.4	632.6	637.6	641.0	642.5	644.0	645.4	646.9
50°	604.0	609.5	615.1	618.6	620.4	622.0	623.7	625.3
52.5°	580.3	586.0	591.7	595.6	597.6	599.7	601.7	603.8
55°	544.5	551.0	557.5	561.6	563.6	565.5	567.4	569.3
57.5°	507.9	514.4	520.9	525.4	527.6	529.8	532.1	534.3
60°	482.4	489.2	495.8	500.5	503.2	505.8	508.4	511.0
62.5°	458.3	465.0	471.7	476.3	478.7	481.2	483.6	486.1
65°	419.8	427.0	434.1	438.9	441.3	443.7	446.2	448.5
67.5°	381.4	389.3	397.1	402.1	404.1	406.2	408.1	410.1
70°	356.0	363.7	371.4	376.4	378.8	381.2	383.6	386.0
72.5°	330.6	338.4	346.3	351.4	353.8	356.2	358.6	361.0
75°	291.8	299.8	307.6	313.1	315.9	318.8	321.6	324.6
77.5°	255.6	264.0	272.3	277.6	279.7	281.9	284.2	286.4
80°	232.0	240.1	248.2	253.5	255.9	258.3	260.7	263.1
82.5°	210.4	218.5	226.6	232.0	234.3	236.7	239.1	241.5
85°	180.1	188.3	196.5	201.8	204.1	206.5	208.9	211.4
87.5°	156.7	164.9	173.2	178.5	180.9	183.4	185.8	188.3
90°	153.1	161.8	170.5	176.2	178.8	181.5	184.1	186.8
92.5°	147.4	156.2	165.0	170.6	172.9	175.3	177.6	180.0
95°	141.5	149.8	158.1	163.5	165.9	168.3	170.7	173.1
97.5°	134.1	142.3	150.4	155.8	158.4	160.9	163.3	165.9
100°	129.0	137.0	145.0	150.2	152.7	155.3	157.8	160.3
102.5°	134.0	137.6	141.2	144.3	146.9	149.5	152.1	154.8
105°	176.1	159.9	143.6	136.7	139.2	141.6	144.0	146.4
107.5°	286.5	276.2	265.7	252.9	237.8	222.6	207.5	192.3
110°	335.8	337.8	339.7	332.4	315.8	299.2	282.6	265.9





TEST NUMBER: P332188-927

CATALOG NUMBER: S123DIW-S1000D755U927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	368.4	374.5	380.6	382.7	381.0	379.1	377.3	375.5
115°	405.8	412.9	419.9	424.7	427.1	429.5	432.0	434.4
117.5°	438.7	445.4	452.2	456.5	458.5	460.5	462.5	464.5
120°	460.6	467.1	473.7	477.8	479.5	481.2	482.8	484.5
122.5°	481.9	487.9	493.9	497.9	499.6	501.5	503.2	505.0
125°	511.4	516.7	522.0	525.6	527.6	529.5	531.4	533.4
127.5°	541.1	546.2	551.4	554.7	556.0	557.4	558.7	560.2
130°	558.5	563.6	568.6	571.8	573.0	574.1	575.3	576.5
132.5°	574.8	579.6	584.6	587.6	588.9	590.2	591.4	592.7
135°	600.0	604.8	609.4	612.2	613.0	613.8	614.7	615.4
137.5°	622.1	626.5	631.0	633.6	634.5	635.5	636.4	637.4
140°	636.3	640.4	644.5	647.1	648.0	648.9	649.8	650.8
142.5°	649.1	652.8	656.3	658.6	659.4	660.3	661.1	661.9
145°	669.5	671.7	673.8	675.4	676.4	677.3	678.3	679.2
147.5°	688.2	689.0	689.8	690.4	690.6	690.9	691.2	691.4
150°	700.1	700.3	700.5	700.8	700.8	700.9	701.0	701.1
152.5°	711.6	712.1	712.6	712.6	712.1	711.5	711.1	710.6
155°	727.6	728.3	729.0	728.9	728.1	727.3	726.5	725.7
157.5°	741.6	742.3	743.1	743.0	742.0	740.9	740.0	738.9
160°	749.5	750.3	751.0	751.0	750.0	749.2	748.2	747.3
162.5°	756.7	757.6	758.4	758.4	757.6	756.9	756.1	755.3
165°	766.3	767.3	768.3	768.4	767.5	766.6	765.7	764.8
167.5°	773.7	774.8	775.9	775.9	774.8	773.7	772.7	771.7
170°	777.9	779.0	780.1	780.1	779.0	777.9	776.9	775.9
172.5°	780.8	781.8	782.8	782.8	781.6	780.5	779.3	778.2
175°	784.1	785.1	785.9	785.8	784.8	783.8	782.8	781.7
177.5°	785.4	786.2	787.0	786.9	785.8	784.8	783.8	782.8
180°	784.7	784.7	784.7	784.7	784.7	784.7	784.7	784.7

(END OF REPORT)