

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: P333380

Luminaire Tested: **S125DIW-S610D770U835-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333380  
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: S125DIW-S610D770U835-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 770 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5570.6 lumens  
Efficiency: N/A  
Efficacy: 148.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: General Diffuse

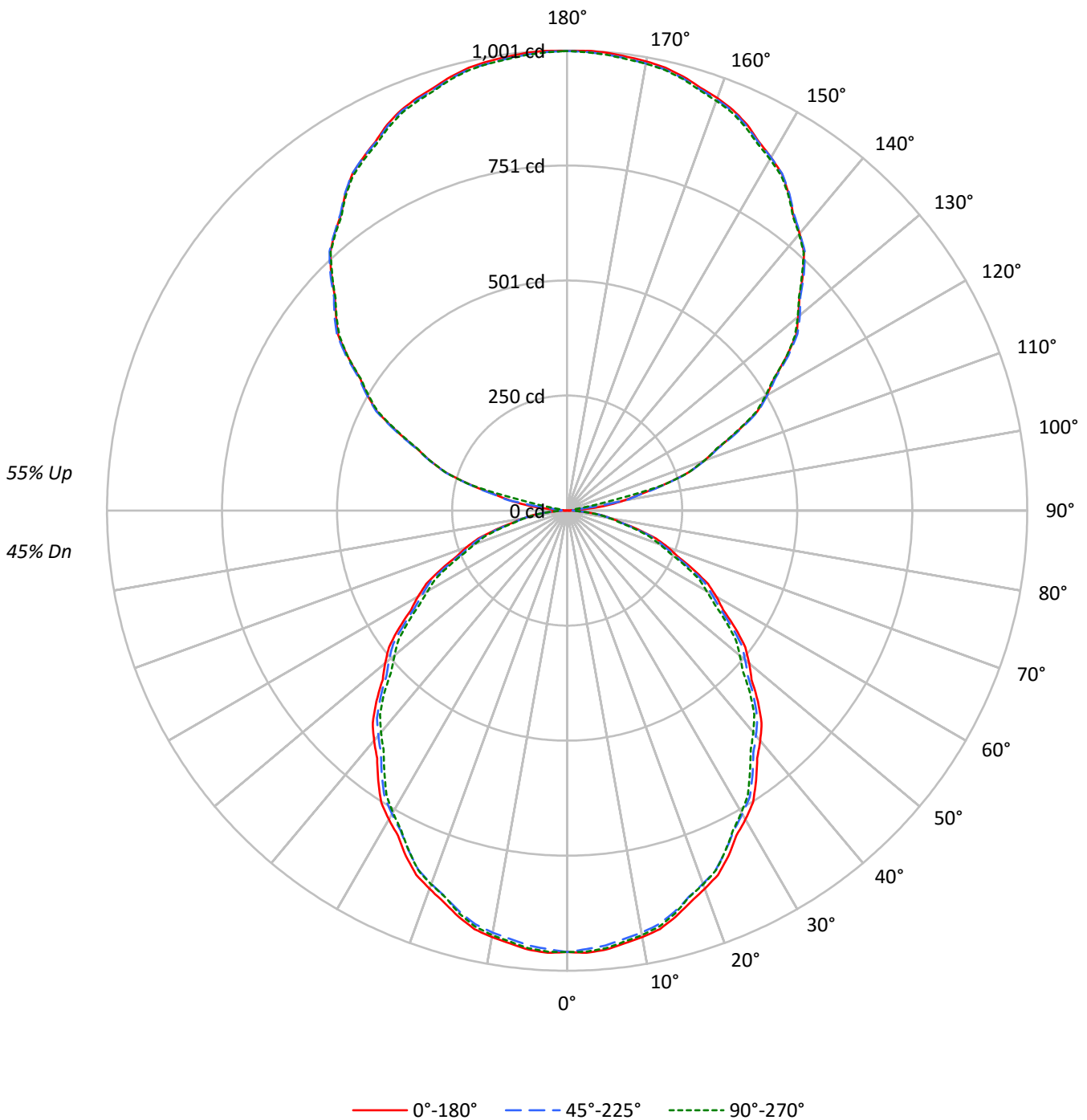
Input Watts (W): 37.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	50	30	10	50	30	10	0		
RCR																										
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45					45			
1	97	92	88	85	88	85	81	78	70	68	66	57	56	54	45	44	43	38					38			
2	88	81	74	69	80	74	69	64	62	58	55	50	48	45	40	38	36	32					32			
3	80	71	63	58	73	65	59	54	54	50	46	44	41	38	35	33	31	27					27			
4	73	63	55	49	67	58	51	45	48	43	39	40	36	33	32	29	27	23					23			
5	67	56	48	42	61	51	44	39	43	38	34	36	31	28	28	26	23	20					20			
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	26	23	20	17					17			
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	24	20	18	15					15			
8	53	41	33	28	49	38	31	26	32	27	23	27	23	19	22	19	16	14					14			
9	49	37	30	25	45	35	28	23	29	24	20	25	20	17	20	17	15	12					12			
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	18	15	13	11					11			

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

	0°	45°	90°
0°	6203	6203	6203
5°	6217	6157	6196
10°	6178	6114	6149
15°	6111	6040	6066
20°	6016	5937	5948
25°	5912	5815	5810
30°	5785	5683	5655
35°	5649	5541	5463
40°	5509	5387	5311
45°	5358	5246	5142
50°	5191	5077	4924
55°	5031	4884	4748
60°	4839	4691	4525
65°	4609	4459	4308
70°	4390	4190	4047
75°	4000	3868	3735
80°	3559	3503	3418
85°	3097	3149	2986



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.6	1.6
10°-20°	255.8	4.6
20°-30°	377.7	6.8
30°-40°	440.7	7.9
40°-50°	442.6	7.9
50°-60°	388.5	7.0
60°-70°	289.5	5.2
70°-80°	165.5	3.0
80°-90°	50.2	0.9
90°-100°	36.3	0.7
100°-110°	223.9	4.0
110°-120°	406.0	7.3
120°-130°	521.1	9.4
130°-140°	560.5	10.1
140°-150°	526.1	9.4
150°-160°	425.5	7.6
160°-170°	275.2	4.9
170°-180°	94.9	1.7
0°-30°	724.0	13.0
0°-40°	1164.7	20.9
0°-60°	1995.9	35.8
0°-90°	2501.1	44.9
90°-120°	666.2	12.0
90°-150°	2273.8	40.8
90°-180°	3069.0	55.1
0°-180°	5570.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	960	960	960	960	960	
5°	959	957	950	956	956	91
15°	914	911	903	907	907	257
25°	830	826	816	817	815	382
35°	716	713	703	699	693	448
45°	587	583	574	566	563	452
55°	447	444	434	427	422	399
65°	302	300	292	285	282	299
75°	160	159	155	153	150	171
85°	42	42	42	42	40	47
90°	1	7	12	15	18	4
95°	42	39	12	15	16	54
105°	218	221	221	221	220	231
115°	409	413	414	410	406	405
125°	582	587	587	584	582	519
135°	725	730	728	727	722	559
145°	841	842	842	843	839	526
155°	926	922	923	925	920	427
165°	977	973	974	978	972	276
175°	1000	995	996	1001	995	95
180°	1000	1000	1000	1000	1000	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	960.4	960.4	960.4	960.4	960.4	960.4	960.4	960.4	960.4	960.4	960.4
2.5°	962.8	962.4	962.0	961.6	961.2	960.3	959.0	957.6	956.3	954.9	956.3
5°	958.9	958.5	958.2	957.8	957.5	956.5	954.8	953.1	951.4	949.7	951.3
7.5°	950.0	949.7	949.4	949.0	948.7	947.6	945.7	943.9	942.0	940.2	941.6
10°	942.1	941.8	941.5	941.1	940.8	939.7	937.8	936.0	934.1	932.3	933.6
12.5°	932.4	931.8	931.2	930.6	930.0	928.8	927.1	925.4	923.6	921.9	923.0
15°	914.0	913.5	913.0	912.5	912.0	910.8	909.0	907.1	905.2	903.4	904.2
17.5°	892.9	892.2	891.4	890.7	889.9	888.6	886.7	884.7	882.8	880.9	881.9
20°	875.3	874.9	874.6	874.3	873.9	872.7	870.5	868.3	866.1	863.9	865.1
22.5°	857.6	857.0	856.4	855.8	855.2	853.9	851.8	849.8	847.7	845.6	846.4
25°	829.7	828.8	828.0	827.2	826.3	824.8	822.6	820.4	818.2	816.0	816.4
27.5°	797.0	796.5	796.0	795.5	795.0	793.6	791.3	789.1	786.8	784.6	784.6
30°	775.7	775.2	774.7	774.2	773.7	772.2	769.7	767.1	764.6	762.1	761.7
32.5°	752.6	751.9	751.1	750.3	749.5	748.0	745.8	743.5	741.2	739.0	738.4
35°	716.5	715.8	715.1	714.5	713.8	712.3	709.9	707.5	705.2	702.8	702.0
37.5°	678.9	678.1	677.3	676.4	675.6	674.0	671.8	669.6	667.3	665.1	663.9
40°	653.4	652.6	651.7	650.9	650.0	648.4	646.1	643.7	641.3	639.0	637.5
42.5°	626.1	625.4	624.6	623.9	623.2	621.7	619.3	617.0	614.6	612.2	610.9
45°	586.6	585.9	585.2	584.5	583.9	582.5	580.5	578.5	576.4	574.4	572.4
47.5°	544.0	544.0	544.1	544.1	544.1	542.9	540.5	538.1	535.7	533.2	531.2
50°	516.7	516.1	515.6	515.1	514.6	513.4	511.3	509.3	507.3	505.3	503.1
52.5°	488.7	488.3	488.0	487.6	487.2	485.9	483.8	481.6	479.5	477.3	475.4
55°	446.8	446.2	445.7	445.2	444.7	443.3	440.9	438.6	436.2	433.8	432.3
57.5°	402.5	402.3	402.0	401.7	401.5	400.3	398.3	396.3	394.3	392.4	390.4
60°	374.6	373.9	373.2	372.5	371.9	370.6	368.8	366.9	365.0	363.2	361.5
62.5°	345.4	344.9	344.3	343.8	343.2	342.2	340.6	339.0	337.4	335.8	334.0
65°	301.6	301.3	301.0	300.6	300.3	299.2	297.3	295.5	293.6	291.8	290.2
67.5°	259.2	258.5	257.8	257.1	256.4	255.4	254.0	252.6	251.2	249.8	248.5
70°	232.5	231.7	230.8	230.0	229.1	227.9	226.4	224.9	223.4	221.9	220.8
72.5°	203.3	202.7	202.2	201.6	201.0	200.2	199.3	198.3	197.3	196.3	195.2
75°	160.3	160.0	159.6	159.3	159.0	158.4	157.5	156.7	155.8	155.0	154.5
77.5°	120.7	120.5	120.4	120.2	120.1	119.8	119.3	118.9	118.4	117.9	117.6
80°	95.7	95.7	95.7	95.7	95.7	95.6	95.2	94.9	94.6	94.2	94.0
82.5°	73.9	73.6	73.3	73.0	72.8	72.6	72.5	72.5	72.4	72.3	72.0
85°	41.8	42.0	42.1	42.3	42.5	42.5	42.5	42.5	42.5	42.5	42.4
87.5°	16.6	16.8	17.1	17.3	17.6	17.8	17.9	18.0	18.1	18.2	18.3
90°	0.7	2.1	3.4	4.7	6.0	7.2	8.4	9.6	10.7	11.9	12.7
92.5°	11.4	10.5	9.6	8.6	7.7	7.8	8.8	9.8	10.8	11.9	12.7
95°	42.2	41.7	41.2	40.8	40.3	36.9	30.6	24.4	18.1	11.9	12.7
97.5°	88.2	89.1	90.0	90.8	91.7	86.0	73.6	61.2	48.8	36.5	31.8
100°	123.7	124.2	124.7	125.2	125.7	126.3	127.0	127.6	128.3	128.9	104.4
102.5°	159.9	160.5	161.2	161.8	162.4	162.9	163.3	163.7	164.1	164.5	159.9
105°	217.8	218.5	219.2	219.8	220.5	220.8	220.8	220.8	220.8	220.8	220.8
107.5°	278.0	278.0	278.0	278.0	278.0	278.2	278.5	278.8	279.2	279.5	279.5
110°	317.1	317.1	317.1	317.1	317.1	317.3	317.6	318.0	318.3	318.6	318.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	353.9	354.3	354.7	355.1	355.5	355.8	356.0	356.2	356.4	356.6	355.9
115°	409.0	409.8	410.7	411.5	412.3	412.8	413.0	413.1	413.3	413.5	412.8
117.5°	466.1	466.0	466.0	466.0	465.9	466.2	466.9	467.5	468.1	468.7	467.9
120°	501.6	501.5	501.3	501.1	501.0	501.1	501.6	502.1	502.6	503.1	502.8
122.5°	533.0	533.7	534.3	534.9	535.6	536.0	536.2	536.4	536.7	536.9	536.6
125°	581.7	582.8	584.0	585.1	586.3	586.8	586.8	586.8	586.8	586.8	586.2
127.5°	628.0	628.9	629.7	630.5	631.3	631.7	631.6	631.5	631.4	631.3	630.9
130°	656.5	657.3	658.1	659.0	659.8	660.3	660.4	660.6	660.8	660.9	660.4
132.5°	684.9	685.9	686.9	687.8	688.8	689.1	688.7	688.3	688.0	687.6	687.5
135°	725.4	726.4	727.4	728.4	729.4	729.7	729.4	729.0	728.7	728.4	728.0
137.5°	762.6	763.5	764.3	765.2	766.0	766.3	766.0	765.7	765.4	765.1	765.2
140°	786.9	787.2	787.6	787.9	788.2	788.3	788.1	788.0	787.8	787.6	788.0
142.5°	808.8	809.0	809.2	809.4	809.6	809.8	810.1	810.3	810.5	810.8	810.8
145°	841.0	841.3	841.7	842.0	842.3	842.5	842.5	842.5	842.5	842.5	842.6
147.5°	869.2	869.1	869.0	869.0	868.9	869.0	869.2	869.3	869.5	869.7	869.9
150°	886.9	886.6	886.3	885.9	885.6	885.6	885.9	886.3	886.6	886.9	887.3
152.5°	904.1	903.4	902.7	902.0	901.2	901.0	901.4	901.7	902.0	902.3	902.7
155°	926.2	925.2	924.2	923.2	922.3	921.9	922.3	922.6	922.9	923.2	923.7
157.5°	943.2	942.7	942.1	941.5	940.9	940.6	940.6	940.7	940.7	940.7	941.3
160°	955.1	954.1	953.1	952.1	951.2	950.7	950.9	951.1	951.2	951.4	952.1
162.5°	964.6	963.6	962.6	961.6	960.6	960.2	960.4	960.6	960.7	960.9	961.8
165°	977.3	976.3	975.4	974.4	973.4	973.0	973.1	973.3	973.5	973.6	974.6
167.5°	986.8	985.8	984.8	983.8	982.7	982.3	982.5	982.6	982.8	983.0	984.1
170°	992.2	991.0	989.8	988.7	987.5	987.0	987.2	987.4	987.5	987.7	989.0
172.5°	995.7	994.6	993.4	992.2	991.1	990.7	991.0	991.3	991.6	991.9	993.0
175°	999.6	998.6	997.6	996.6	995.6	995.2	995.4	995.5	995.7	995.9	997.2
177.5°	1001.3	1000.5	999.8	999.0	998.2	997.8	998.0	998.1	998.2	998.4	999.3
180°	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	960.4	960.4	960.4	960.4	960.4	960.4	960.4	960.4
2.5°	957.6	959.0	960.3	960.9	960.8	960.6	960.5	960.4
5°	952.8	954.3	955.8	956.5	956.3	956.2	956.0	955.8
7.5°	943.1	944.6	946.1	946.8	946.6	946.4	946.3	946.1
10°	935.0	936.3	937.7	938.3	938.1	937.9	937.7	937.6
12.5°	924.1	925.2	926.2	926.8	926.7	926.7	926.7	926.6
15°	905.1	905.9	906.8	907.2	907.2	907.2	907.2	907.2
17.5°	883.0	884.0	885.1	885.2	884.3	883.5	882.7	881.8
20°	866.2	867.4	868.6	868.8	867.9	867.1	866.2	865.4
22.5°	847.2	848.0	848.8	848.9	848.3	847.7	847.1	846.6
25°	816.7	817.0	817.4	817.3	816.8	816.3	815.8	815.3
27.5°	784.7	784.8	784.8	784.6	784.1	783.6	783.1	782.6
30°	761.4	761.1	760.7	760.3	759.8	759.3	758.8	758.3
32.5°	737.8	737.1	736.5	735.8	734.9	734.0	733.0	732.1
35°	701.1	700.3	699.4	698.3	697.0	695.6	694.3	692.9
37.5°	662.6	661.4	660.1	659.1	658.3	657.6	656.8	656.0
40°	635.9	634.4	632.9	631.9	631.4	630.9	630.4	629.9
42.5°	609.5	608.1	606.7	605.6	604.8	604.1	603.3	602.5
45°	570.3	568.3	566.3	565.0	564.5	564.0	563.5	563.0
47.5°	529.1	527.0	525.0	523.4	522.2	521.0	519.8	518.6
50°	500.9	498.7	496.5	494.8	493.6	492.4	491.2	490.1
52.5°	473.4	471.5	469.6	468.0	466.7	465.3	464.0	462.7
55°	430.8	429.3	427.8	426.4	425.2	424.0	422.9	421.7
57.5°	388.4	386.5	384.5	383.2	382.6	381.9	381.3	380.7
60°	359.8	358.1	356.4	355.0	353.8	352.6	351.4	350.3
62.5°	332.2	330.4	328.5	327.2	326.3	325.3	324.4	323.5
65°	288.7	287.2	285.7	284.6	283.9	283.2	282.6	281.9
67.5°	247.3	246.0	244.7	243.8	243.4	243.0	242.6	242.2
70°	219.8	218.8	217.8	217.0	216.3	215.6	214.9	214.3
72.5°	194.0	192.9	191.7	190.8	190.1	189.5	188.8	188.1
75°	154.0	153.5	153.0	152.4	151.7	151.0	150.4	149.7
77.5°	117.3	117.0	116.7	116.3	115.8	115.4	114.9	114.4
80°	93.9	93.7	93.5	93.3	92.9	92.6	92.3	91.9
82.5°	71.7	71.4	71.1	70.9	70.9	70.8	70.7	70.7
85°	42.2	42.0	41.9	41.6	41.3	40.9	40.6	40.3
87.5°	18.5	18.7	18.8	18.8	18.7	18.5	18.3	18.1
90°	13.5	14.3	15.1	15.8	16.3	16.8	17.3	17.8
92.5°	13.5	14.3	15.1	15.7	15.9	16.1	16.4	16.6
95°	13.5	14.3	15.1	15.6	15.6	15.6	15.6	15.6
97.5°	27.2	22.5	17.9	15.6	15.6	15.6	15.6	15.6
100°	79.9	55.3	30.8	18.2	17.5	16.9	16.2	15.6
102.5°	155.2	150.6	145.9	138.0	126.8	115.6	104.4	93.2
105°	220.8	220.8	220.8	220.7	220.6	220.4	220.2	220.1
107.5°	279.6	279.6	279.6	279.4	278.9	278.4	277.9	277.4
110°	317.6	317.1	316.6	316.5	316.6	316.8	317.0	317.1





TEST NUMBER: P333380

CATALOG NUMBER: S125DIW-S610D770U835-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	355.3	354.7	354.0	353.6	353.4	353.2	352.9	352.7
115°	412.1	411.5	410.8	410.0	409.0	408.0	407.0	406.0
117.5°	467.0	466.2	465.3	464.7	464.2	463.8	463.4	463.0
120°	502.5	502.1	501.8	501.2	500.4	499.6	498.8	497.9
122.5°	536.2	535.9	535.6	534.9	534.0	533.0	532.1	531.1
125°	585.5	584.9	584.2	583.6	583.1	582.6	582.2	581.7
127.5°	630.6	630.2	629.9	629.1	627.8	626.6	625.4	624.2
130°	660.0	659.5	659.0	658.3	657.5	656.7	655.8	655.0
132.5°	687.4	687.3	687.2	686.8	685.9	685.1	684.3	683.5
135°	727.7	727.4	727.1	726.4	725.4	724.4	723.4	722.4
137.5°	765.3	765.3	765.4	765.0	764.1	763.3	762.4	761.6
140°	788.3	788.6	789.0	788.6	787.6	786.7	785.7	784.7
142.5°	810.9	811.0	811.0	810.6	809.6	808.6	807.6	806.6
145°	842.8	843.0	843.1	842.7	841.7	840.7	839.8	838.8
147.5°	870.1	870.3	870.5	870.0	868.9	867.7	866.5	865.3
150°	887.6	887.9	888.3	887.8	886.4	885.1	883.8	882.5
152.5°	903.0	903.3	903.7	903.2	902.0	900.9	899.7	898.5
155°	924.2	924.7	925.2	924.8	923.5	922.2	920.9	919.5
157.5°	941.8	942.3	942.8	942.4	941.1	939.8	938.5	937.2
160°	952.7	953.4	954.0	953.7	952.4	951.1	949.8	948.4
162.5°	962.7	963.6	964.6	964.3	962.9	961.4	960.0	958.5
165°	975.6	976.6	977.6	977.4	976.1	974.8	973.5	972.1
167.5°	985.3	986.5	987.7	987.6	986.1	984.6	983.1	981.6
170°	990.3	991.7	993.0	992.9	991.4	989.9	988.4	987.0
172.5°	994.2	995.4	996.6	996.4	995.0	993.5	992.0	990.5
175°	998.5	999.8	1001.1	1001.0	999.6	998.1	996.6	995.1
177.5°	1000.2	1001.1	1002.1	1002.0	1000.9	999.9	998.8	997.8
180°	999.6	999.6	999.6	999.6	999.6	999.6	999.6	999.6

(END OF REPORT)