

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: P334291

Luminaire Tested: **S125DW-S610D935-4F0-1E-UDD-A**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334291  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-22)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DW-S610D935-4F0-1E-UDD-A  
Description: DEFINE 5 DIRECT LED LUMINAIRE, ASYMMETRIC DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 610 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2055.1 lumens  
Efficiency: N/A  
Efficacy: 109.3 lumens/watt  
Spacing Criteria (0/90/45): 1.43 / 1.23 / 1.53  
Luminous Opening: Rectangular (W 4' x L: 0.42' x H: 0')  
CIE Type: Direct

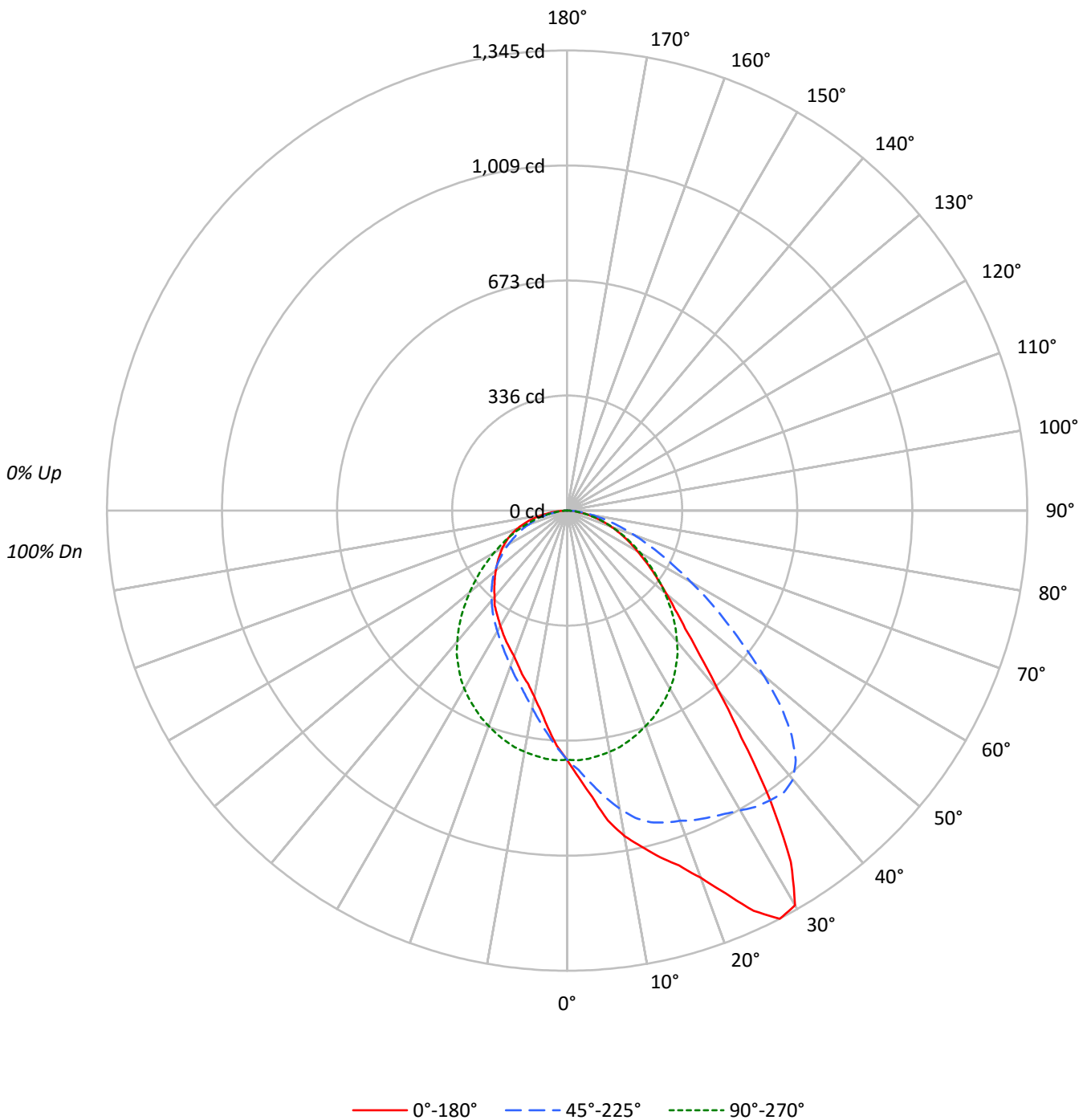
Input Watts (W): 18.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P334291

CATALOG NUMBER: S125DW-S610D935-4F0-1E-UDD-A

### Luminous Intensity Polar Plot





TEST NUMBER: P334291

CATALOG NUMBER: S125DW-S610D935-4F0-1E-UDD-A

**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	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	109	105	101	97	107	103	99	96	99	96	93		95	92	90		91	89	87	85
2	100	92	86	80	98	90	84	79	87	82	78		84	80	76		81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66		74	69	65		72	67	64	61
4	84	73	64	58	82	71	63	57	69	62	57		67	61	56		64	59	55	53
5	78	65	56	50	76	64	56	50	62	55	49		60	54	49		58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43		54	48	43		53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39		50	43	38		48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34		46	39	34		44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31		42	36	31		41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28		39	33	28		38	32	28	26

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

	0°	90°	180°
0°	4703	4703	4703
5°	5446	4719	4132
10°	6336	4695	3620
15°	7014	4660	3340
20°	7852	4605	3114
25°	9198	4544	3004
30°	9935	4483	2909
35°	8169	4369	2846
40°	5806	4211	2778
45°	4461	3998	2738
50°	3808	3733	2733
55°	3390	3474	2756
60°	3059	3190	2826
65°	2824	2905	2900
70°	2568	2610	2942
75°	2268	2298	2915
80°	1908	1874	2667
85°	1512	1349	2156



TEST NUMBER: P334291

CATALOG NUMBER: S125DW-S610D935-4F0-1E-UDD-A

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.1	3.4
10°-20°	208.8	10.2
20°-30°	339.1	16.5
30°-40°	414.4	20.2
40°-50°	376.0	18.3
50°-60°	299.5	14.6
60°-70°	208.6	10.1
70°-80°	111.1	5.4
80°-90°	27.6	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	618.0	30.1
0°-40°	1032.4	50.2
0°-60°	1707.8	83.1
0°-90°	2055.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2055.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	728	728	728	728	728	
5°	840	800	728	655	637	84
15°	1049	943	697	529	500	300
25°	1291	989	638	443	422	591
35°	1036	1034	554	376	361	636
45°	488	928	438	311	300	389
55°	301	568	308	237	245	271
65°	185	301	190	160	190	183
75°	91	134	92	84	117	98
85°	20	27	18	20	29	24
90°	0	0	0	0	0	



TEST NUMBER: P334291

CATALOG NUMBER: S125DW-S610D935-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2
2.5°	780.8	779.5	778.3	775.8	777.7	772.4	770.0	765.6	760.4	758.5	756.4
5°	840.1	841.7	843.2	836.7	837.3	833.0	823.1	815.1	808.6	800.2	794.4
7.5°	913.7	909.1	909.4	905.3	898.2	892.4	882.8	869.5	857.4	843.8	832.1
10°	966.2	966.5	963.8	958.8	951.1	945.5	931.9	918.9	903.2	884.6	871.3
12.5°	1005.8	1007.3	1003.6	996.5	993.7	979.5	969.6	953.6	934.1	920.2	898.2
15°	1049.1	1045.7	1043.2	1034.9	1028.4	1015.4	998.4	982.3	961.9	943.1	924.2
17.5°	1087.4	1090.2	1086.2	1080.0	1060.8	1045.7	1024.7	1004.3	979.8	956.3	934.4
20°	1142.4	1144.9	1137.8	1124.5	1100.4	1085.2	1055.3	1026.8	997.5	965.0	940.3
22.5°	1211.0	1207.9	1197.7	1175.8	1155.7	1124.5	1091.4	1055.3	1016.6	978.9	944.0
25°	1290.8	1277.8	1271.9	1246.9	1219.4	1178.3	1133.8	1083.1	1037.3	988.8	946.8
27.5°	1345.2	1339.9	1331.6	1311.2	1279.7	1233.0	1180.4	1119.9	1058.3	999.0	946.1
30°	1332.2	1332.8	1333.4	1327.9	1309.3	1276.3	1224.0	1157.6	1080.9	1012.0	948.3
32.5°	1217.2	1231.1	1244.4	1261.7	1272.9	1273.2	1245.3	1186.9	1107.5	1026.8	947.1
35°	1036.1	1039.5	1074.4	1109.0	1156.0	1192.5	1216.9	1190.3	1123.9	1033.9	946.1
37.5°	837.6	854.6	880.9	919.9	990.3	1047.8	1123.3	1149.2	1118.0	1039.8	945.8
40°	688.7	704.1	719.9	759.8	816.9	890.5	979.2	1054.9	1072.6	1026.8	936.6
42.5°	573.7	585.1	603.0	630.6	676.0	739.0	822.8	927.6	999.3	989.1	917.1
45°	488.4	496.1	509.7	533.5	568.1	619.1	693.9	802.1	896.4	927.6	884.0
47.5°	427.8	428.1	439.2	456.2	482.5	529.5	585.4	674.4	776.1	848.2	838.0
50°	379.0	377.4	385.8	400.0	419.8	448.5	501.4	569.0	665.8	750.2	773.7
52.5°	336.9	337.5	341.9	351.4	367.2	390.7	426.9	486.2	565.3	652.5	702.0
55°	301.1	299.8	305.7	312.8	324.9	340.9	369.4	416.0	483.1	568.4	625.9
57.5°	266.4	269.8	272.3	277.3	287.8	298.9	324.2	360.1	415.4	491.2	552.0
60°	236.8	240.2	242.0	247.0	255.0	264.3	282.8	310.6	355.5	418.5	478.8
62.5°	210.2	212.7	213.0	217.3	223.5	232.4	246.0	268.3	301.4	354.5	413.3
65°	184.8	184.8	186.1	190.7	193.8	201.8	213.0	230.0	258.4	301.4	351.8
67.5°	160.1	161.7	161.3	163.5	166.3	173.1	181.4	195.7	218.2	250.7	292.4
70°	136.0	137.2	136.9	138.5	141.6	145.6	152.1	165.4	180.5	207.4	242.0
72.5°	114.4	114.7	113.7	115.9	117.5	120.9	128.3	133.8	147.7	169.4	196.3
75°	90.9	91.5	92.1	93.3	95.2	97.1	100.8	107.9	117.1	134.1	152.4
77.5°	72.3	70.8	72.6	72.3	73.3	74.8	78.2	82.2	90.3	101.7	116.8
80°	51.3	51.6	51.6	51.9	53.5	54.4	57.2	60.0	65.8	73.9	83.8
82.5°	34.0	34.9	34.3	34.9	36.2	36.8	38.0	40.2	43.0	48.8	55.3
85°	20.4	18.9	19.5	20.1	20.1	20.4	21.6	22.6	24.4	26.9	29.7
87.5°	7.4	8.0	8.3	8.3	8.7	8.7	9.9	9.9	10.8	11.7	13.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P334291

CATALOG NUMBER: S125DW-S610D935-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2
2.5°	754.5	752.3	749.9	745.5	740.3	737.5	733.2	730.4	724.8	720.2	715.2
5°	787.3	779.2	771.8	762.2	751.7	744.9	736.9	727.9	718.6	709.1	698.6
7.5°	820.0	806.7	792.2	777.1	762.2	748.3	735.3	722.0	710.0	694.8	682.2
10°	853.1	835.2	816.0	793.4	771.5	752.3	732.9	715.9	698.6	680.0	663.6
12.5°	886.2	860.8	831.8	806.4	778.9	754.8	731.0	708.1	685.3	664.2	644.5
15°	898.2	877.2	852.2	816.9	787.3	755.4	725.1	697.0	670.7	647.9	623.8
17.5°	910.0	883.1	856.5	822.5	783.9	749.6	715.2	684.6	655.6	626.8	604.9
20°	912.8	884.9	856.8	823.7	783.9	743.1	708.8	670.1	638.3	608.3	579.9
22.5°	911.8	879.4	848.2	813.8	775.2	738.4	695.2	655.6	620.4	591.0	561.0
25°	905.0	871.3	833.0	798.7	760.4	720.5	678.5	637.7	602.4	568.7	539.4
27.5°	901.0	858.4	816.3	776.8	740.0	703.2	662.4	620.4	581.7	547.4	520.2
30°	892.1	844.1	795.3	753.6	715.6	680.0	642.0	601.2	560.4	527.0	497.3
32.5°	884.0	826.2	774.0	727.6	686.8	652.5	618.2	579.9	540.0	506.0	476.3
35°	873.2	808.6	749.6	698.2	655.3	619.7	590.4	554.2	517.4	484.7	456.2
37.5°	860.5	785.7	723.3	669.8	623.1	586.0	558.2	530.1	493.3	461.2	435.8
40°	845.1	761.0	693.9	638.9	590.1	551.1	525.8	499.5	470.1	440.8	413.6
42.5°	825.6	738.7	664.2	604.0	555.8	518.0	491.2	469.8	444.8	417.9	393.2
45°	800.9	710.9	631.8	568.1	519.3	481.9	454.4	437.7	418.2	392.2	370.9
47.5°	768.1	679.4	597.8	532.0	481.6	447.0	420.7	404.3	390.1	369.7	349.6
50°	721.4	643.2	560.4	495.2	444.8	409.9	386.1	371.5	359.8	345.0	328.6
52.5°	669.2	597.8	523.6	459.3	409.6	375.2	352.1	339.7	330.4	320.8	304.8
55°	613.2	551.4	481.0	419.8	373.7	340.0	319.6	308.5	300.4	292.4	282.5
57.5°	553.0	502.9	438.3	381.1	338.5	306.9	287.8	276.3	269.8	265.5	259.3
60°	488.7	447.3	393.5	342.5	301.1	273.9	255.3	247.0	241.7	238.3	234.0
62.5°	429.0	396.9	348.0	302.6	267.7	242.3	226.3	218.2	213.3	212.0	208.6
65°	370.6	344.3	303.2	264.6	233.7	211.7	197.8	190.1	187.0	185.1	185.5
67.5°	311.9	294.9	260.6	226.6	201.2	181.7	170.3	164.4	162.9	160.1	160.1
70°	259.0	247.0	219.1	190.4	168.5	154.2	144.3	138.2	136.6	135.4	135.1
72.5°	212.3	202.1	179.0	157.3	138.2	126.1	118.4	115.3	112.5	111.9	111.9
75°	166.6	160.7	141.6	123.3	109.7	101.1	95.5	92.1	90.3	89.9	90.3
77.5°	125.8	120.2	106.9	93.3	84.4	77.6	72.3	71.4	68.9	69.2	68.6
80°	89.0	85.6	77.9	67.7	60.6	55.0	52.5	50.4	49.8	48.8	49.8
82.5°	58.4	54.7	50.1	44.5	38.9	36.2	33.7	33.4	33.1	32.8	32.8
85°	31.8	32.1	29.1	24.1	21.6	19.8	18.2	18.2	17.9	17.6	17.9
87.5°	13.6	13.0	11.7	10.8	9.3	8.3	8.0	8.3	7.4	7.1	7.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P334291

CATALOG NUMBER: S125DW-S610D935-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2
2.5°	712.5	709.1	706.3	700.1	696.7	692.1	688.4	692.4	688.0	689.9	687.1
5°	693.3	684.6	678.5	669.5	661.8	654.7	649.4	648.5	646.0	644.8	641.1
7.5°	670.4	660.5	650.3	639.2	629.9	620.0	614.2	608.6	605.2	600.9	597.5
10°	650.6	636.1	623.8	609.5	597.2	586.4	577.7	573.4	569.4	563.5	561.3
12.5°	626.2	611.1	595.3	579.9	568.1	555.8	548.6	541.5	539.1	532.3	532.0
15°	607.7	585.1	570.3	554.8	538.4	528.6	522.4	515.3	512.2	507.5	504.1
17.5°	584.8	564.4	545.9	530.1	515.3	507.2	499.2	494.2	489.0	485.6	480.0
20°	559.5	540.3	521.8	504.8	493.9	484.4	478.2	473.5	468.0	466.4	460.9
22.5°	538.1	516.5	498.9	485.3	473.2	462.1	455.3	452.5	449.1	443.6	443.6
25°	514.6	492.7	477.6	463.3	452.8	442.9	438.3	434.3	430.6	427.2	425.9
27.5°	494.9	475.4	456.8	443.9	434.9	425.6	421.6	416.4	413.6	410.8	407.1
30°	473.8	453.8	438.0	425.6	415.7	407.7	403.4	400.0	397.5	395.0	393.2
32.5°	452.2	434.0	418.8	406.8	396.9	391.3	387.6	385.4	382.7	379.6	377.1
35°	433.7	413.3	398.4	387.9	380.2	375.6	371.2	369.1	366.0	366.0	363.5
37.5°	411.7	393.8	380.5	370.9	364.1	359.8	354.8	353.6	351.4	350.2	349.3
40°	392.6	376.2	363.8	354.2	346.8	343.4	339.7	337.2	336.0	334.4	333.8
42.5°	372.8	357.3	345.6	336.9	330.7	328.0	324.6	323.0	320.2	318.1	317.8
45°	352.7	337.5	326.7	319.6	314.0	310.6	308.5	304.8	303.5	301.1	300.8
47.5°	334.1	319.3	308.5	302.6	297.7	295.2	291.8	287.8	286.2	284.7	284.4
50°	312.8	299.5	289.6	284.1	279.4	275.4	272.0	269.5	268.6	268.6	269.2
52.5°	291.2	280.3	272.3	265.2	260.9	256.5	253.5	252.2	250.7	252.5	253.8
55°	270.1	258.7	252.5	246.0	241.7	236.8	235.2	234.6	233.7	236.1	237.4
57.5°	247.6	239.9	232.4	225.6	221.9	218.8	216.4	216.1	217.9	218.5	222.2
60°	226.3	217.0	210.5	205.5	200.9	199.1	198.4	197.8	199.1	202.5	207.7
62.5°	202.8	195.7	188.5	185.1	182.1	178.7	178.7	179.3	182.1	186.1	191.3
65°	179.9	173.4	168.8	164.4	161.7	159.8	160.4	161.7	164.4	169.7	175.6
67.5°	156.4	152.1	147.7	143.7	140.9	141.3	141.6	143.1	146.5	152.7	158.3
70°	133.8	128.9	125.5	123.9	121.8	120.5	122.4	125.5	128.3	133.8	138.5
72.5°	111.3	107.3	104.8	103.9	103.2	102.3	102.6	106.0	110.0	115.6	121.2
75°	89.0	87.5	85.6	84.4	83.5	84.1	84.7	87.8	90.9	96.7	102.9
77.5°	68.9	67.1	65.8	65.5	64.9	65.2	66.8	69.2	72.3	76.7	81.6
80°	49.1	48.5	47.9	47.6	47.6	47.9	50.4	51.9	54.7	58.7	62.4
82.5°	32.5	32.1	32.1	32.1	32.5	32.5	33.7	35.9	38.0	40.8	43.9
85°	18.9	18.2	19.2	19.5	18.9	19.8	20.4	21.6	22.6	24.1	25.7
87.5°	7.7	8.3	8.0	8.3	8.3	9.0	8.7	9.9	10.5	11.1	10.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TEST NUMBER: P334291

CATALOG NUMBER: S125DW-S610D935-4F0-1E-UDD-A

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	728.2	728.2	728.2	728.2
2.5°	685.3	687.4	685.6	688.0
5°	639.5	636.7	638.6	637.4
7.5°	597.2	594.7	591.0	589.8
10°	557.9	554.5	554.2	552.0
12.5°	529.2	526.1	521.8	521.1
15°	502.3	499.8	497.6	499.5
17.5°	479.4	477.2	476.6	474.8
20°	458.1	456.5	457.2	453.1
22.5°	441.1	437.7	437.1	437.1
25°	423.2	421.6	420.1	421.6
27.5°	407.4	405.8	405.2	405.5
30°	393.2	390.1	390.4	390.1
32.5°	377.7	375.9	375.2	374.6
35°	362.6	362.6	361.0	361.0
37.5°	348.7	348.4	347.4	348.0
40°	332.6	332.3	331.4	329.5
42.5°	317.1	315.9	315.6	315.3
45°	300.8	300.8	300.1	299.8
47.5°	284.7	285.3	286.5	286.2
50°	270.5	270.8	271.7	272.0
52.5°	254.7	256.9	258.1	257.8
55°	240.2	242.3	244.5	244.8
57.5°	225.6	228.4	230.6	231.2
60°	210.8	214.8	217.6	218.8
62.5°	196.6	201.2	204.0	204.0
65°	180.8	185.5	187.9	189.8
67.5°	164.4	169.1	171.5	173.1
70°	146.2	150.8	154.5	155.8
72.5°	128.3	132.3	135.1	136.6
75°	106.9	112.5	115.3	116.8
77.5°	86.5	92.1	93.7	94.6
80°	66.1	69.2	71.4	71.7
82.5°	47.0	49.5	49.8	50.7
85°	27.8	29.1	29.4	29.1
87.5°	11.4	11.1	11.1	11.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)