

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: P333432-935

Luminaire Tested: **S125DIW-S1090D470U935-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333432-935  
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-S1090D470U935-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 470 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5286.7 lumens  
Efficiency: N/A  
Efficacy: 114.4 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: Semi-Direct

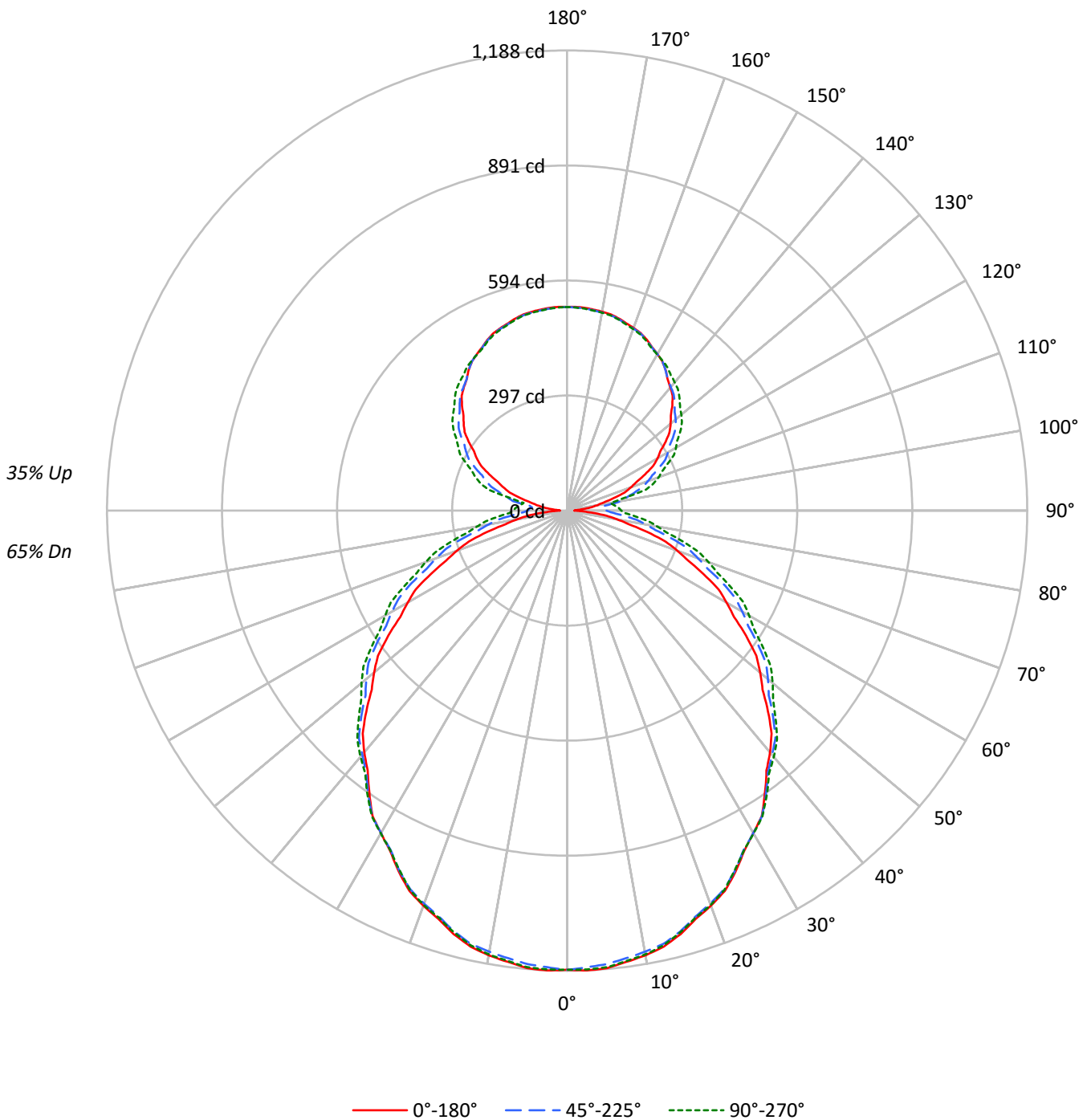
Input Watts (W): 46.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333432-935

CATALOG NUMBER: S125DIW-S1090D470U935-4F0-1E-UDD-D

### Luminous Intensity Polar Plot





TEST NUMBER: P333432-935

CATALOG NUMBER: S125DIW-S1090D470U935-4F0-1E-UDD-D

**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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	70	70	70	65
1	100	95	91	87	94	90	86	82	79	76	74	69	67	65	60	59	57	53
2	91	83	76	70	85	78	72	67	69	64	60	60	57	54	53	50	48	44
3	83	72	65	58	77	68	61	56	60	55	50	53	49	45	46	43	40	36
4	76	64	56	49	71	60	53	47	54	47	43	47	42	38	41	37	34	31
5	69	57	48	42	65	54	46	40	48	41	37	42	37	33	37	33	30	27
6	64	51	43	36	60	48	41	35	43	37	32	38	33	29	34	29	26	23
7	59	46	38	32	55	44	36	31	39	33	28	35	30	26	31	26	23	21
8	55	42	34	28	51	40	32	27	36	29	25	32	27	23	28	24	21	18
9	51	38	31	25	48	36	29	24	33	27	22	29	24	21	26	22	19	17
10	48	35	28	23	45	34	27	22	30	24	20	27	22	19	24	20	17	15

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

	0°	45°	90°
0°	7657	7657	7657
5°	7672	7516	7539
10°	7617	7381	7370
15°	7527	7221	7155
20°	7405	7022	6940
25°	7259	6810	6675
30°	7083	6575	6434
35°	6919	6361	6214
40°	6751	6134	5991
45°	6562	5941	5794
50°	6381	5731	5621
55°	6164	5532	5416
60°	5927	5306	5207
65°	5679	5069	4972
70°	5397	4745	4731
75°	4952	4435	4434
80°	4367	4057	4111
85°	3824	3802	4009



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.1	2.1
10°-20°	318.2	6.0
20°-30°	473.3	9.0
30°-40°	560.6	10.6
40°-50°	579.6	11.0
50°-60°	533.9	10.1
60°-70°	431.6	8.2
70°-80°	289.0	5.5
80°-90°	151.0	2.9
90°-100°	103.2	2.0
100°-110°	179.7	3.4
110°-120°	255.0	4.8
120°-130°	297.5	5.6
130°-140°	304.9	5.8
140°-150°	278.6	5.3
150°-160°	223.7	4.2
160°-170°	144.7	2.7
170°-180°	49.9	0.9
0°-30°	903.6	17.1
0°-40°	1464.2	27.7
0°-60°	2577.8	48.8
0°-90°	3449.4	65.2
90°-120°	537.9	10.2
90°-150°	1419.0	26.8
90°-180°	1837.0	34.7
0°-180°	5286.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1186	1186	1186	1186	1186	
5°	1186	1183	1175	1184	1183	112
15°	1132	1133	1125	1132	1128	319
25°	1029	1032	1025	1029	1024	473
35°	890	898	895	898	898	557
45°	733	746	752	760	761	566
55°	564	582	601	613	618	504
65°	388	415	443	460	465	385
75°	214	244	281	304	310	227
85°	64	102	143	168	178	68
90°	19	59	102	129	140	13
95°	37	66	91	118	127	40
105°	125	146	180	202	211	132
115°	222	233	263	281	287	220
125°	310	313	335	352	357	277
135°	384	385	392	406	410	296
145°	443	443	443	449	451	277
155°	487	485	485	486	483	224
165°	514	512	512	514	511	145
175°	526	523	524	526	523	50
180°	526	526	526	526	526	



TEST NUMBER: P333432-935

CATALOG NUMBER: S125DIW-S1090D470U935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6
2.5°	1188.4	1187.9	1187.5	1187.1	1186.7	1185.8	1184.3	1182.8	1181.5	1180.0	1181.5
5°	1185.6	1185.1	1184.6	1184.0	1183.5	1182.3	1180.5	1178.7	1176.9	1175.1	1177.2
7.5°	1175.1	1174.9	1174.7	1174.5	1174.3	1173.3	1171.4	1169.5	1167.7	1165.8	1167.6
10°	1165.8	1165.8	1165.8	1165.8	1165.8	1164.8	1162.7	1160.6	1158.6	1156.5	1158.3
12.5°	1152.8	1153.0	1153.2	1153.4	1153.7	1152.9	1151.2	1149.6	1148.0	1146.2	1147.7
15°	1132.1	1132.4	1132.6	1132.9	1133.2	1132.4	1130.6	1128.8	1127.0	1125.2	1126.7
17.5°	1105.1	1105.6	1106.1	1106.6	1107.2	1106.6	1104.7	1102.9	1101.1	1099.3	1100.5
20°	1085.6	1086.2	1086.7	1087.2	1087.7	1087.0	1085.2	1083.4	1081.6	1079.8	1080.6
22.5°	1063.2	1064.2	1065.1	1066.1	1067.0	1066.4	1064.5	1062.5	1060.4	1058.4	1059.4
25°	1028.6	1029.4	1030.2	1031.0	1031.7	1031.4	1029.8	1028.3	1026.7	1025.2	1026.2
27.5°	990.1	991.2	992.3	993.5	994.6	994.3	992.6	990.8	989.0	987.3	988.0
30°	961.2	962.8	964.3	965.9	967.4	967.4	965.9	964.3	962.8	961.2	961.7
32.5°	935.2	936.5	937.9	939.3	940.6	940.6	939.5	938.4	937.3	936.2	936.7
35°	890.4	892.2	894.0	895.8	897.6	898.1	897.3	896.6	895.8	895.0	895.8
37.5°	845.5	847.1	848.8	850.4	852.0	852.8	852.6	852.3	852.0	851.8	852.8
40°	814.8	816.8	818.9	821.0	823.0	824.0	823.7	823.5	823.2	822.9	824.0
42.5°	781.3	784.0	786.7	789.4	792.0	793.7	794.3	794.8	795.4	796.0	797.2
45°	733.4	736.2	739.1	741.9	744.8	746.8	748.1	749.4	750.7	752.0	753.8
47.5°	684.4	687.0	689.7	692.2	694.9	697.3	699.6	701.8	704.0	706.2	708.9
50°	650.9	653.8	656.6	659.4	662.3	665.1	668.0	670.8	673.6	676.5	679.3
52.5°	615.5	619.1	622.5	625.9	629.4	632.8	636.4	639.8	643.3	646.7	649.8
55°	563.7	567.8	572.0	576.1	580.2	584.4	588.5	592.6	596.8	600.9	603.7
57.5°	510.7	515.7	520.6	525.6	530.5	535.5	540.2	544.9	549.7	554.4	557.7
60°	475.4	480.5	485.7	490.9	496.0	501.2	506.4	511.5	516.7	521.9	525.7
62.5°	441.0	446.2	451.3	456.5	461.7	467.0	472.6	478.2	483.8	489.3	493.6
65°	388.2	394.2	400.1	406.0	412.0	418.0	424.2	430.4	436.6	442.8	446.7
67.5°	338.5	344.2	349.9	355.7	361.4	367.4	373.8	380.0	386.3	392.6	397.4
70°	302.2	308.2	314.1	320.0	326.0	332.3	339.0	345.7	352.4	359.1	364.0
72.5°	266.9	273.0	279.1	285.3	291.4	298.2	305.6	312.9	320.2	327.5	332.9
75°	213.9	220.6	227.3	234.0	240.7	248.2	256.5	264.8	273.0	281.3	286.5
77.5°	163.0	170.7	178.5	186.2	194.0	201.8	209.7	217.7	225.7	233.6	239.3
80°	131.3	139.1	146.8	154.5	162.3	170.6	179.3	188.1	196.9	205.7	211.4
82.5°	102.5	110.6	118.8	127.0	135.2	143.7	152.7	161.7	170.7	179.7	185.2
85°	63.9	72.4	80.9	89.5	98.0	106.8	115.8	124.8	133.9	142.9	148.6
87.5°	36.3	44.8	53.1	61.6	70.0	78.6	87.5	96.4	105.3	114.3	120.3
90°	19.0	28.0	36.9	45.9	54.8	64.0	73.4	82.7	92.1	101.5	107.9
92.5°	22.7	29.9	37.0	44.3	51.4	59.8	69.2	78.8	88.3	97.8	104.0
95°	37.3	43.7	50.2	56.7	63.1	69.1	74.6	80.1	85.6	91.1	97.2
97.5°	60.1	66.6	73.1	79.6	86.1	90.3	92.3	94.3	96.3	98.2	101.2
100°	77.8	83.5	89.2	94.9	100.6	107.7	116.3	124.9	133.5	142.2	134.7
102.5°	95.9	101.3	106.6	111.9	117.3	124.1	132.3	140.6	148.9	157.1	159.9
105°	125.0	129.5	134.0	138.4	142.9	149.0	156.8	164.5	172.3	180.0	185.2
107.5°	155.2	158.7	162.2	165.7	169.3	174.8	182.4	190.0	197.7	205.3	210.4
110°	174.9	178.0	181.1	184.2	187.3	192.5	199.9	207.3	214.7	222.1	226.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	194.2	196.8	199.6	202.2	204.9	209.8	217.0	224.1	231.2	238.3	242.7
115°	222.0	224.2	226.4	228.7	230.9	235.5	242.3	249.1	255.9	262.7	267.0
117.5°	250.8	252.0	253.1	254.3	255.5	259.4	266.1	272.8	279.5	286.2	290.1
120°	269.5	270.2	270.9	271.6	272.2	275.7	281.9	288.1	294.3	300.5	304.7
122.5°	285.1	285.8	286.5	287.1	287.8	291.1	297.0	302.8	308.7	314.5	318.6
125°	310.4	310.7	311.1	311.4	311.8	314.5	319.7	324.9	330.0	335.2	339.0
127.5°	333.6	333.8	334.0	334.2	334.3	336.5	340.7	344.9	349.0	353.3	356.9
130°	348.6	348.8	349.0	349.1	349.3	351.2	354.9	358.6	362.3	366.0	369.4
132.5°	362.7	363.1	363.5	363.9	364.5	365.9	368.5	371.2	373.8	376.3	379.9
135°	383.7	383.9	384.2	384.4	384.7	385.6	387.3	388.9	390.5	392.2	395.4
137.5°	402.9	403.2	403.5	403.7	404.0	404.4	405.2	405.9	406.6	407.3	410.4
140°	414.8	415.0	415.2	415.3	415.5	415.7	415.9	416.0	416.2	416.4	419.4
142.5°	426.4	426.3	426.1	426.0	425.9	425.9	426.1	426.3	426.5	426.6	429.1
145°	443.2	443.2	443.1	443.0	442.9	442.9	442.9	442.9	442.9	442.9	444.3
147.5°	456.9	456.8	456.8	456.8	456.8	456.8	456.9	457.0	457.1	457.2	457.7
150°	466.2	466.1	465.9	465.7	465.5	465.5	465.7	465.9	466.1	466.2	466.4
152.5°	475.3	474.9	474.5	474.2	473.7	473.6	473.8	474.0	474.2	474.3	474.5
155°	486.9	486.4	485.9	485.3	484.8	484.7	484.8	485.0	485.2	485.3	485.6
157.5°	495.8	495.5	495.2	494.9	494.6	494.5	494.5	494.5	494.5	494.6	494.8
160°	502.0	501.5	501.0	500.5	500.0	499.8	499.9	500.0	500.1	500.2	500.5
162.5°	507.0	506.5	506.0	505.5	505.0	504.8	504.9	505.0	505.1	505.1	505.6
165°	513.8	513.2	512.7	512.2	511.7	511.4	511.5	511.6	511.7	511.8	512.3
167.5°	518.8	518.2	517.7	517.1	516.6	516.3	516.4	516.5	516.6	516.7	517.4
170°	521.6	521.0	520.3	519.7	519.1	518.8	518.9	519.0	519.1	519.2	519.9
172.5°	523.4	522.8	522.2	521.6	521.0	520.8	520.9	521.1	521.2	521.4	522.0
175°	525.5	525.0	524.4	523.9	523.4	523.1	523.2	523.3	523.4	523.5	524.2
177.5°	526.4	526.0	525.6	525.1	524.7	524.5	524.6	524.7	524.8	524.9	525.3
180°	525.5	525.5	525.5	525.5	525.5	525.5	525.5	525.5	525.5	525.5	525.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6
2.5°	1182.8	1184.3	1185.8	1186.4	1186.2	1185.9	1185.8	1185.6
5°	1179.2	1181.3	1183.4	1184.3	1184.0	1183.8	1183.5	1183.3
7.5°	1169.4	1171.2	1173.0	1173.8	1173.5	1173.3	1173.0	1172.8
10°	1160.1	1161.9	1163.7	1164.5	1164.2	1164.0	1163.7	1163.5
12.5°	1149.1	1150.5	1151.8	1152.2	1151.6	1150.9	1150.2	1149.5
15°	1128.3	1129.8	1131.4	1131.6	1130.6	1129.5	1128.5	1127.5
17.5°	1101.7	1102.9	1104.1	1104.3	1103.7	1103.1	1102.5	1101.9
20°	1081.3	1082.1	1082.9	1083.3	1083.3	1083.3	1083.3	1083.3
22.5°	1060.4	1061.4	1062.3	1062.5	1061.9	1061.3	1060.7	1060.1
25°	1027.3	1028.3	1029.3	1029.2	1027.9	1026.6	1025.3	1024.0
27.5°	988.7	989.5	990.2	990.3	989.8	989.4	988.9	988.4
30°	962.3	962.8	963.3	963.5	963.2	962.9	962.7	962.4
32.5°	937.2	937.7	938.2	938.3	938.1	937.8	937.5	937.3
35°	896.6	897.3	898.1	898.5	898.5	898.5	898.5	898.5
37.5°	853.9	854.9	855.9	856.4	856.3	856.2	856.0	855.9
40°	825.0	826.0	827.1	827.9	828.4	828.9	829.4	829.9
42.5°	798.4	799.7	800.9	801.6	801.7	801.8	801.9	802.0
45°	755.6	757.4	759.2	760.3	760.5	760.8	761.0	761.3
47.5°	711.5	714.1	716.8	718.3	718.9	719.5	720.1	720.7
50°	682.2	685.0	687.9	689.7	690.4	691.2	692.0	692.8
52.5°	652.8	655.8	658.9	660.7	661.2	661.9	662.5	663.0
55°	606.6	609.4	612.3	614.2	615.3	616.3	617.3	618.4
57.5°	560.9	564.2	567.5	569.5	570.2	571.0	571.8	572.6
60°	529.6	533.5	537.4	539.7	540.4	541.2	542.0	542.8
62.5°	497.9	502.2	506.5	509.1	510.1	511.1	512.0	513.1
65°	450.6	454.4	458.3	460.8	461.8	462.9	463.9	464.9
67.5°	402.0	406.7	411.5	414.5	415.8	417.2	418.4	419.8
70°	368.9	373.8	378.8	382.0	383.6	385.1	386.7	388.2
72.5°	338.2	343.5	348.8	352.1	353.2	354.3	355.4	356.6
75°	291.6	296.8	302.0	305.1	306.4	307.7	309.0	310.3
77.5°	245.0	250.6	256.3	259.7	260.7	261.7	262.8	263.8
80°	217.1	222.7	228.4	231.8	232.8	233.8	234.9	235.9
82.5°	190.6	196.1	201.6	205.3	207.2	209.0	210.9	212.7
85°	154.3	160.0	165.7	169.5	171.6	173.7	175.7	177.8
87.5°	126.3	132.3	138.4	142.2	144.1	146.0	147.8	149.7
90°	114.3	120.6	127.0	131.2	133.3	135.4	137.5	139.6
92.5°	110.1	116.3	122.5	126.6	128.5	130.4	132.3	134.2
95°	103.3	109.4	115.5	119.5	121.3	123.1	124.9	126.7
97.5°	104.2	107.1	110.1	112.5	114.3	116.0	117.8	119.5
100°	127.3	119.8	112.3	109.2	110.4	111.6	112.7	113.9
102.5°	162.7	165.5	168.2	167.5	163.2	158.8	154.5	150.2
105°	190.4	195.5	200.7	204.1	205.9	207.6	209.3	211.0
107.5°	215.5	220.7	225.8	229.0	230.4	231.7	233.1	234.4
110°	231.4	236.1	240.7	244.0	245.9	247.8	249.7	251.6





TEST NUMBER: P333432-935

CATALOG NUMBER: S125DIW-S1090D470U935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	247.1	251.5	255.8	258.9	260.5	262.3	263.9	265.6
115°	271.3	275.6	279.9	282.6	283.6	284.6	285.7	286.7
117.5°	294.0	298.0	302.0	304.6	306.2	307.7	309.3	310.8
120°	308.9	313.1	317.4	320.0	321.2	322.3	323.4	324.5
122.5°	322.6	326.6	330.6	333.1	334.2	335.2	336.3	337.3
125°	342.8	346.6	350.3	352.8	353.8	354.8	355.9	356.9
127.5°	360.5	364.1	367.8	370.1	370.9	371.8	372.6	373.4
130°	372.7	376.1	379.4	381.6	382.5	383.3	384.2	385.0
132.5°	383.5	387.0	390.6	392.7	393.4	394.0	394.7	395.3
135°	398.6	401.7	404.9	406.9	407.7	408.5	409.2	410.0
137.5°	413.5	416.6	419.7	421.5	422.1	422.7	423.3	423.8
140°	422.4	425.4	428.4	430.2	430.7	431.2	431.7	432.2
142.5°	431.6	434.0	436.5	438.0	438.5	439.0	439.5	440.1
145°	445.7	447.0	448.4	449.4	449.9	450.4	450.9	451.4
147.5°	458.2	458.7	459.3	459.4	459.3	459.2	459.0	458.8
150°	466.6	466.7	466.9	466.8	466.4	466.0	465.5	465.1
152.5°	474.7	474.8	475.0	474.8	474.2	473.7	473.1	472.5
155°	485.9	486.1	486.4	486.1	485.4	484.7	484.1	483.4
157.5°	495.1	495.3	495.6	495.4	494.7	494.0	493.4	492.7
160°	500.8	501.2	501.5	501.4	500.7	500.0	499.3	498.6
162.5°	506.1	506.6	507.0	507.0	506.2	505.4	504.6	503.9
165°	512.9	513.4	513.9	513.8	513.2	512.4	511.7	511.0
167.5°	518.0	518.6	519.2	519.2	518.3	517.5	516.8	516.0
170°	520.6	521.3	522.0	521.9	521.2	520.4	519.6	518.8
172.5°	522.6	523.2	523.9	523.8	523.1	522.3	521.5	520.7
175°	524.9	525.6	526.2	526.2	525.5	524.7	523.9	523.1
177.5°	525.8	526.2	526.8	526.8	526.2	525.6	525.0	524.5
180°	525.5	525.5	525.5	525.5	525.5	525.5	525.5	525.5

(END OF REPORT)