

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: P333438-930

Luminaire Tested: **S125DIW-S1090D770U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333438-930  
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-S1090D770U930-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 770 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5981.4 lumens  
Efficiency: N/A  
Efficacy: 111.6 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

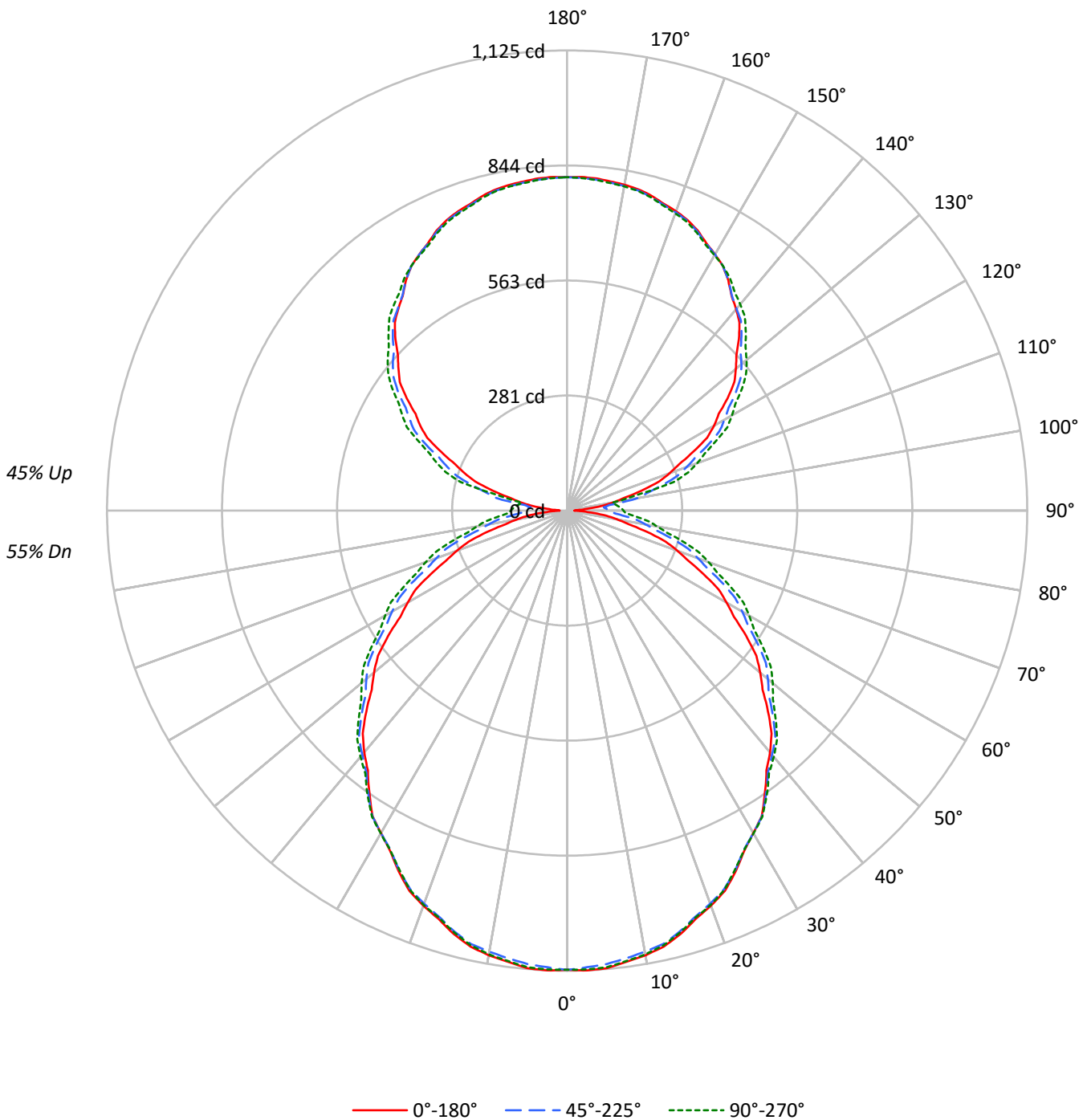
Input Watts (W): 53.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333438-930

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### Luminous Intensity Polar Plot





TEST NUMBER: P333438-930

CATALOG NUMBER: S125DIW-S1090D770U930-4F0-1E-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	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	49	45	43	41	36
3	81	71	63	57	75	66	59	54	57	51	47	48	44	41	40	37	35	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	21	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°	7251	7251	7251
5°	7265	7116	7139
10°	7213	6989	6979
15°	7128	6837	6775
20°	7012	6650	6572
25°	6874	6448	6320
30°	6707	6226	6092
35°	6552	6023	5884
40°	6393	5809	5674
45°	6214	5626	5487
50°	6043	5427	5322
55°	5837	5239	5128
60°	5611	5024	4931
65°	5377	4800	4709
70°	5112	4494	4480
75°	4688	4200	4198
80°	4134	3842	3893
85°	3621	3600	3798



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.2	1.8
10°-20°	301.3	5.0
20°-30°	448.2	7.5
30°-40°	530.9	8.9
40°-50°	548.9	9.2
50°-60°	505.6	8.5
60°-70°	408.7	6.8
70°-80°	273.7	4.6
80°-90°	143.6	2.4
90°-100°	109.3	1.8
100°-110°	241.3	4.0
110°-120°	370.4	6.2
120°-130°	447.2	7.5
130°-140°	466.7	7.8
140°-150°	430.9	7.2
150°-160°	347.0	5.8
160°-170°	224.4	3.8
170°-180°	77.4	1.3
0°-30°	855.7	14.3
0°-40°	1386.5	23.2
0°-60°	2441.0	40.8
0°-90°	3267.0	54.6
90°-120°	720.9	12.1
90°-150°	2065.7	34.5
90°-180°	2714.0	45.4
0°-180°	5981.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1123	1123	1123	1123	1123	
5°	1123	1120	1113	1121	1120	106
15°	1072	1073	1065	1071	1068	302
25°	974	977	971	975	970	448
35°	843	850	848	851	851	527
45°	694	706	712	719	721	536
55°	534	551	569	581	586	477
65°	368	393	419	435	440	365
75°	202	232	266	287	294	215
85°	60	97	135	159	168	64
90°	18	58	100	127	138	13
95°	49	75	90	116	125	55
105°	188	208	241	262	270	199
115°	340	352	380	397	400	337
125°	479	483	504	518	523	427
135°	594	596	603	615	618	457
145°	687	687	687	693	694	429
155°	755	752	753	754	750	348
165°	797	793	794	797	793	225
175°	815	812	812	816	811	78
180°	815	815	815	815	815	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7
2.5°	1125.3	1124.9	1124.5	1124.1	1123.7	1122.8	1121.4	1120.1	1118.8	1117.4	1118.8
5°	1122.7	1122.2	1121.7	1121.2	1120.7	1119.6	1117.9	1116.1	1114.4	1112.7	1114.7
7.5°	1112.7	1112.6	1112.3	1112.1	1112.0	1111.0	1109.2	1107.4	1105.7	1103.9	1105.6
10°	1103.9	1103.9	1103.9	1103.9	1103.9	1102.9	1101.0	1099.0	1097.1	1095.1	1096.8
12.5°	1091.6	1091.8	1092.0	1092.2	1092.4	1091.7	1090.1	1088.6	1087.0	1085.4	1086.8
15°	1072.0	1072.3	1072.5	1072.8	1073.0	1072.3	1070.6	1068.9	1067.1	1065.4	1066.9
17.5°	1046.4	1046.9	1047.4	1047.9	1048.4	1047.8	1046.1	1044.4	1042.7	1041.0	1042.1
20°	1028.0	1028.5	1029.0	1029.5	1030.0	1029.3	1027.6	1025.9	1024.2	1022.5	1023.2
22.5°	1006.8	1007.7	1008.6	1009.5	1010.4	1009.8	1008.0	1006.1	1004.1	1002.2	1003.1
25°	974.0	974.8	975.5	976.2	977.0	976.6	975.2	973.7	972.2	970.8	971.8
27.5°	937.5	938.6	939.6	940.8	941.8	941.5	939.9	938.2	936.5	934.9	935.6
30°	910.2	911.7	913.1	914.6	916.1	916.1	914.6	913.1	911.7	910.2	910.7
32.5°	885.6	886.8	888.1	889.4	890.6	890.7	889.7	888.6	887.5	886.5	887.0
35°	843.1	844.8	846.5	848.2	849.9	850.4	849.7	849.0	848.2	847.5	848.2
37.5°	800.6	802.2	803.7	805.3	806.8	807.6	807.3	807.1	806.8	806.6	807.6
40°	771.5	773.5	775.4	777.4	779.3	780.2	780.0	779.8	779.5	779.3	780.2
42.5°	739.8	742.4	744.9	747.5	750.0	751.5	752.1	752.6	753.2	753.7	754.9
45°	694.5	697.2	699.9	702.5	705.2	707.2	708.4	709.6	710.9	712.1	713.8
47.5°	648.1	650.5	653.1	655.5	658.0	660.3	662.4	664.6	666.7	668.7	671.2
50°	616.4	619.1	621.7	624.4	627.1	629.8	632.5	635.2	637.9	640.6	643.3
52.5°	582.9	586.2	589.5	592.7	596.0	599.2	602.6	605.8	609.1	612.4	615.3
55°	533.8	537.7	541.6	545.5	549.4	553.3	557.3	561.2	565.1	569.0	571.7
57.5°	483.6	488.3	493.0	497.7	502.4	507.0	511.5	516.0	520.5	525.0	528.1
60°	450.1	455.0	459.9	464.8	469.7	474.6	479.5	484.4	489.3	494.2	497.8
62.5°	417.6	422.5	427.4	432.3	437.2	442.2	447.5	452.8	458.1	463.3	467.4
65°	367.6	373.2	378.9	384.5	390.1	395.8	401.7	407.6	413.4	419.3	423.0
67.5°	320.5	326.0	331.3	336.8	342.2	347.9	353.9	359.9	365.8	371.8	376.3
70°	286.2	291.8	297.4	303.0	308.7	314.6	321.0	327.3	333.7	340.1	344.7
72.5°	252.7	258.5	264.3	270.2	276.0	282.3	289.3	296.3	303.2	310.1	315.2
75°	202.5	208.9	215.2	221.6	228.0	235.1	242.9	250.7	258.5	266.4	271.3
77.5°	154.3	161.7	169.0	176.3	183.7	191.1	198.6	206.2	213.7	221.2	226.6
80°	124.3	131.7	139.0	146.3	153.7	161.5	169.8	178.1	186.5	194.8	200.2
82.5°	97.1	104.8	112.5	120.3	128.0	136.1	144.6	153.1	161.7	170.2	175.4
85°	60.5	68.6	76.6	84.7	92.8	101.1	109.7	118.2	126.8	135.3	140.7
87.5°	34.5	42.5	50.5	58.6	66.6	74.9	83.4	91.9	100.4	108.9	114.7
90°	18.2	27.1	36.0	44.9	53.8	62.9	72.2	81.4	90.7	100.0	106.2
92.5°	25.2	31.6	38.2	44.6	51.1	59.0	68.4	77.7	87.1	96.4	102.5
95°	48.8	54.7	60.7	66.6	72.6	77.1	80.4	83.6	86.8	90.0	96.0
97.5°	84.9	91.3	97.8	104.2	110.6	112.8	110.8	108.7	106.6	104.6	105.9
100°	113.0	118.5	124.1	129.6	135.2	142.1	150.5	158.8	167.2	175.5	160.7
102.5°	141.6	146.8	152.1	157.4	162.7	169.3	177.2	185.2	193.1	201.1	202.2
105°	187.5	192.0	196.4	200.9	205.3	211.2	218.6	225.9	233.3	240.6	245.5
107.5°	235.2	238.6	241.9	245.2	248.6	253.9	261.2	268.5	275.8	283.2	288.0
110°	266.3	269.2	272.1	275.1	278.0	283.0	290.2	297.3	304.4	311.5	315.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	296.2	298.9	301.6	304.3	306.9	311.7	318.5	325.3	332.1	338.9	342.8
115°	340.1	342.4	344.9	347.2	349.6	354.0	360.5	367.0	373.5	380.0	383.8
117.5°	385.5	386.6	387.7	388.8	389.9	393.7	400.2	406.8	413.3	419.8	423.2
120°	414.5	415.1	415.7	416.3	416.9	420.2	426.2	432.3	438.3	444.3	448.2
122.5°	439.2	440.1	440.9	441.8	442.6	445.9	451.5	457.1	462.7	468.3	472.1
125°	478.7	479.3	480.0	480.7	481.4	484.2	489.1	494.0	498.9	503.8	507.1
127.5°	515.4	515.8	516.2	516.7	517.1	519.3	523.2	527.1	531.0	534.9	538.3
130°	538.5	539.0	539.4	539.8	540.2	542.3	545.8	549.3	552.9	556.4	559.5
132.5°	560.8	561.6	562.3	563.0	563.8	565.3	567.7	570.0	572.3	574.7	578.0
135°	593.6	594.2	594.8	595.3	595.9	596.9	598.3	599.7	601.2	602.7	605.5
137.5°	623.7	624.2	624.8	625.3	625.7	626.3	626.9	627.5	628.0	628.7	631.6
140°	642.7	642.9	643.2	643.4	643.8	643.9	644.0	644.2	644.2	644.3	647.3
142.5°	660.6	660.5	660.5	660.5	660.4	660.5	660.7	661.0	661.2	661.5	663.8
145°	686.7	686.8	686.8	686.8	686.9	686.9	686.9	686.9	686.9	686.9	688.2
147.5°	708.7	708.6	708.5	708.5	708.4	708.5	708.7	708.7	708.9	709.1	709.6
150°	723.1	722.8	722.6	722.3	722.0	722.0	722.3	722.6	722.8	723.1	723.4
152.5°	737.1	736.5	736.0	735.4	734.7	734.6	734.9	735.2	735.4	735.6	736.0
155°	755.1	754.3	753.5	752.7	752.0	751.6	752.0	752.2	752.4	752.7	753.1
157.5°	769.0	768.6	768.1	767.6	767.1	766.9	766.9	767.0	767.0	767.0	767.4
160°	778.7	777.9	777.1	776.2	775.5	775.1	775.3	775.4	775.5	775.7	776.2
162.5°	786.4	785.6	784.8	784.0	783.2	782.9	783.0	783.2	783.3	783.4	784.2
165°	796.8	796.0	795.2	794.4	793.6	793.3	793.4	793.5	793.7	793.8	794.6
167.5°	804.5	803.7	802.9	802.1	801.2	800.9	801.0	801.1	801.3	801.4	802.3
170°	808.9	808.0	807.0	806.1	805.1	804.7	804.9	805.0	805.1	805.3	806.3
172.5°	811.8	810.9	809.9	808.9	808.0	807.7	808.0	808.2	808.5	808.7	809.6
175°	815.0	814.2	813.3	812.5	811.7	811.4	811.5	811.6	811.8	812.0	813.0
177.5°	816.4	815.7	815.1	814.5	813.8	813.5	813.7	813.8	813.8	814.0	814.7
180°	815.0	815.0	815.0	815.0	815.0	815.0	815.0	815.0	815.0	815.0	815.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7
2.5°	1120.1	1121.4	1122.8	1123.4	1123.2	1123.0	1122.8	1122.7
5°	1116.6	1118.6	1120.5	1121.4	1121.2	1121.0	1120.7	1120.5
7.5°	1107.3	1109.1	1110.8	1111.5	1111.3	1111.0	1110.8	1110.5
10°	1098.5	1100.2	1102.0	1102.7	1102.4	1102.2	1102.0	1101.7
12.5°	1088.1	1089.4	1090.7	1091.0	1090.5	1089.8	1089.2	1088.5
15°	1068.4	1069.8	1071.3	1071.5	1070.6	1069.6	1068.6	1067.6
17.5°	1043.3	1044.3	1045.5	1045.7	1045.1	1044.6	1044.0	1043.4
20°	1023.9	1024.7	1025.4	1025.8	1025.8	1025.8	1025.8	1025.8
22.5°	1004.1	1005.0	1005.9	1006.1	1005.5	1004.9	1004.4	1003.8
25°	972.7	973.7	974.7	974.5	973.3	972.1	970.9	969.6
27.5°	936.2	936.9	937.6	937.8	937.3	936.9	936.4	936.0
30°	911.2	911.7	912.2	912.3	912.1	911.8	911.6	911.3
32.5°	887.5	887.9	888.4	888.5	888.3	888.0	887.8	887.5
35°	849.0	849.7	850.4	850.8	850.8	850.8	850.8	850.8
37.5°	808.5	809.5	810.5	810.9	810.8	810.7	810.6	810.5
40°	781.2	782.2	783.2	783.9	784.4	784.9	785.4	785.9
42.5°	756.0	757.2	758.4	759.0	759.1	759.2	759.4	759.5
45°	715.5	717.2	718.9	719.9	720.2	720.4	720.6	720.9
47.5°	673.8	676.2	678.7	680.2	680.8	681.3	681.8	682.4
50°	646.0	648.7	651.3	653.1	653.8	654.5	655.3	656.0
52.5°	618.2	621.0	623.9	625.7	626.1	626.7	627.3	627.8
55°	574.4	577.1	579.8	581.6	582.6	583.6	584.6	585.5
57.5°	531.2	534.3	537.4	539.2	540.0	540.7	541.4	542.2
60°	501.5	505.2	508.8	511.0	511.8	512.5	513.2	514.0
62.5°	471.5	475.6	479.6	482.1	483.1	484.0	484.9	485.8
65°	426.6	430.3	434.0	436.3	437.3	438.3	439.3	440.3
67.5°	380.7	385.1	389.6	392.5	393.7	395.0	396.2	397.5
70°	349.4	354.0	358.7	361.7	363.2	364.7	366.2	367.6
72.5°	320.2	325.3	330.3	333.4	334.4	335.5	336.6	337.7
75°	276.1	281.0	285.9	288.9	290.2	291.4	292.6	293.8
77.5°	232.0	237.3	242.7	245.9	246.9	247.9	248.8	249.8
80°	205.5	210.9	216.3	219.5	220.5	221.4	222.4	223.4
82.5°	180.5	185.7	190.9	194.4	196.2	197.9	199.7	201.4
85°	146.1	151.5	156.9	160.5	162.5	164.4	166.4	168.4
87.5°	120.4	126.2	131.9	135.7	137.5	139.3	141.1	142.9
90°	112.5	118.8	125.1	129.3	131.4	133.5	135.7	137.8
92.5°	108.6	114.7	120.8	124.8	126.7	128.6	130.5	132.4
95°	102.1	108.2	114.2	118.1	119.8	121.6	123.3	125.0
97.5°	107.3	108.6	110.0	111.5	113.2	114.8	116.4	118.1
100°	145.9	130.9	116.1	109.1	110.1	111.0	111.9	112.8
102.5°	203.3	204.5	205.6	202.4	194.8	187.1	179.4	171.8
105°	250.4	255.3	260.2	263.3	265.0	266.5	268.1	269.7
107.5°	292.9	297.7	302.6	305.6	306.7	307.9	308.9	310.1
110°	320.0	324.2	328.5	331.5	333.4	335.3	337.0	338.9





TEST NUMBER: P333438-930

CATALOG NUMBER: S125DIW-S1090D770U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	346.7	350.7	354.7	357.4	358.9	360.4	362.0	363.5
115°	387.8	391.6	395.5	397.7	398.4	399.1	399.7	400.4
117.5°	426.7	430.2	433.7	436.0	437.3	438.6	439.9	441.3
120°	452.1	456.0	459.8	462.2	463.0	463.8	464.6	465.4
122.5°	475.7	479.4	483.1	485.3	486.0	486.7	487.4	488.0
125°	510.5	513.9	517.3	519.3	520.2	521.0	521.8	522.7
127.5°	541.6	544.9	548.3	550.2	550.6	551.0	551.4	551.8
130°	562.6	565.6	568.6	570.4	570.9	571.4	572.0	572.6
132.5°	581.4	584.7	588.1	590.0	590.3	590.6	591.0	591.3
135°	608.5	611.4	614.2	616.0	616.4	616.8	617.2	617.6
137.5°	634.5	637.5	640.4	642.0	642.3	642.5	642.9	643.1
140°	650.3	653.2	656.2	657.8	657.9	658.1	658.3	658.4
142.5°	666.2	668.5	670.8	672.1	672.3	672.5	672.6	672.8
145°	689.6	691.0	692.3	693.1	693.2	693.4	693.6	693.7
147.5°	710.2	710.8	711.3	711.3	710.8	710.3	709.7	709.2
150°	723.7	723.9	724.2	723.9	723.1	722.3	721.5	720.6
152.5°	736.2	736.5	736.8	736.5	735.5	734.6	733.7	732.8
155°	753.5	753.9	754.3	754.0	752.9	751.9	750.8	749.7
157.5°	767.8	768.3	768.7	768.3	767.3	766.2	765.2	764.1
160°	776.7	777.3	777.8	777.6	776.5	775.4	774.4	773.2
162.5°	784.9	785.6	786.4	786.2	785.1	783.8	782.7	781.5
165°	795.4	796.2	797.0	796.9	795.8	794.8	793.7	792.6
167.5°	803.3	804.3	805.3	805.2	804.0	802.7	801.5	800.3
170°	807.4	808.5	809.6	809.5	808.3	807.1	805.8	804.7
172.5°	810.6	811.5	812.5	812.4	811.2	810.0	808.8	807.6
175°	814.1	815.1	816.2	816.1	815.0	813.8	812.5	811.3
177.5°	815.5	816.2	817.0	816.9	816.0	815.2	814.3	813.5
180°	815.0	815.0	815.0	815.0	815.0	815.0	815.0	815.0

(END OF REPORT)