

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: P333650-940

Luminaire Tested: **S125RDIW-S375D1050U940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333650-940  
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: S125RDIW-S375D1050U940-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 375 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1050 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5027.5 lumens  
Efficiency: N/A  
Efficacy: 132.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

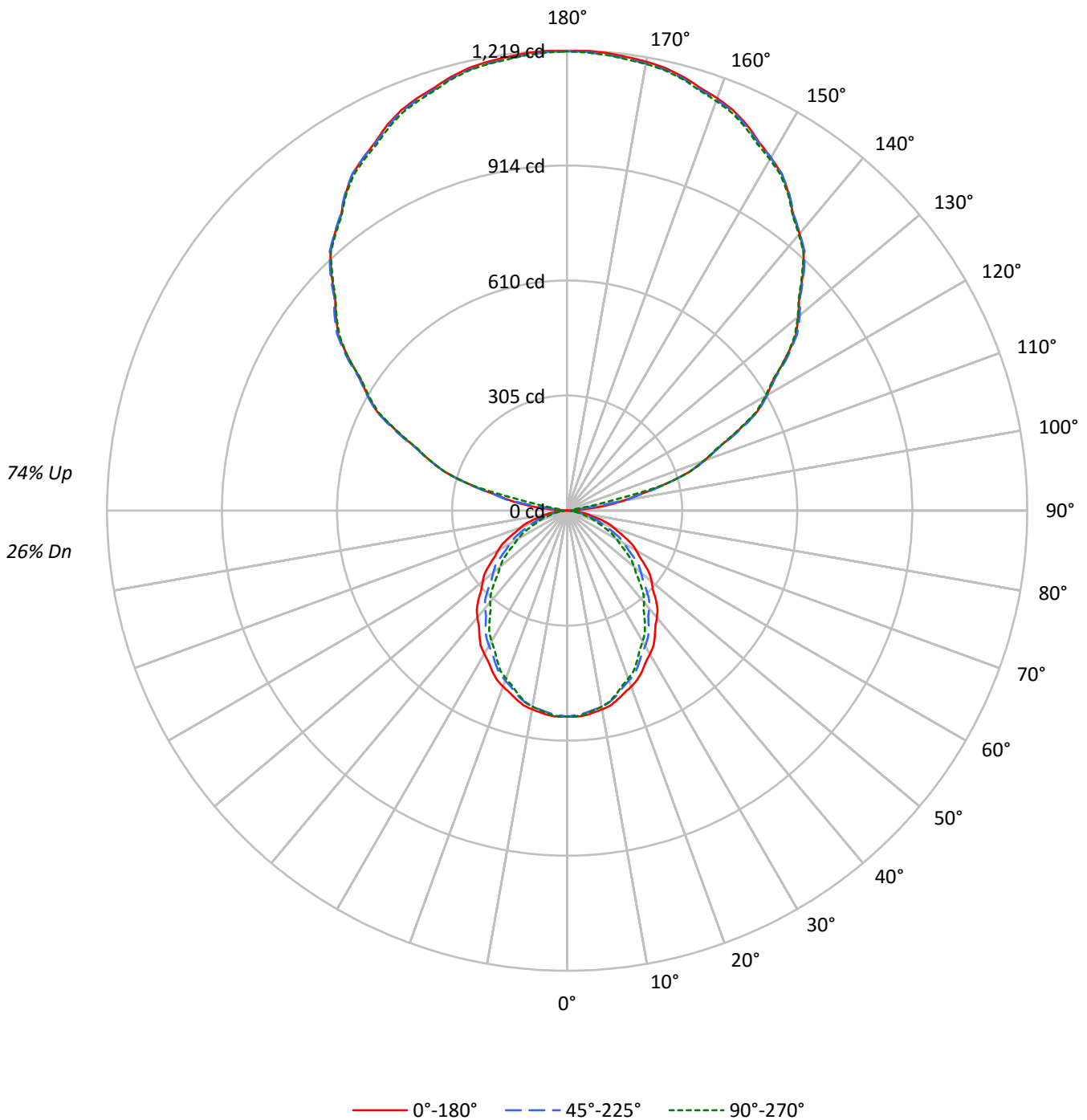
Input Watts (W): 38  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	101	101	101	101	90	90	90	90	70	70	70	51	51	51	34	34	34	26
1	92	88	85	81	82	79	76	73	61	59	57	45	44	43	30	29	29	22
2	84	77	71	66	75	69	64	60	54	50	48	40	37	36	26	25	24	18
3	77	68	61	55	68	61	55	50	47	43	40	35	32	30	24	22	21	16
4	70	60	52	47	62	54	47	42	42	38	34	31	28	26	21	19	18	14
5	64	53	46	40	57	48	41	36	38	33	29	28	25	22	19	17	16	12
6	59	48	40	34	53	43	36	31	34	29	25	25	22	20	17	15	14	10
7	55	43	35	30	49	39	32	27	31	26	22	23	20	17	16	14	12	9
8	51	39	31	26	45	35	29	24	28	23	20	21	18	15	14	12	11	8
9	47	35	28	23	42	32	26	21	25	21	18	19	16	14	13	11	10	8
10	44	32	25	21	39	29	23	19	23	19	16	18	14	12	12	10	9	7

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

	0°	45°	90°
0°	3524	3524	3524
5°	3532	3492	3513
10°	3505	3459	3459
15°	3463	3389	3361
20°	3410	3291	3252
25°	3348	3195	3125
30°	3270	3082	2984
35°	3191	2967	2827
40°	3117	2845	2672
45°	3027	2711	2503
50°	2936	2563	2327
55°	2831	2422	2139
60°	2725	2251	1938
65°	2601	2054	1705
70°	2459	1805	1469
75°	2263	1522	1223
80°	1993	1194	1027
85°	1675	978	919



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.3	1.0
10°-20°	143.4	2.9
20°-30°	207.9	4.1
30°-40°	237.0	4.7
40°-50°	231.0	4.6
50°-60°	194.4	3.9
60°-70°	136.3	2.7
70°-80°	70.1	1.4
80°-90°	20.2	0.4
90°-100°	44.2	0.9
100°-110°	272.5	5.4
110°-120°	494.2	9.8
120°-130°	634.2	12.6
130°-140°	682.1	13.6
140°-150°	640.3	12.7
150°-160°	517.9	10.3
160°-170°	335.0	6.7
170°-180°	115.5	2.3
0°-30°	402.6	8.0
0°-40°	639.6	12.7
0°-60°	1065.0	21.2
0°-90°	1291.6	25.7
90°-120°	810.9	16.1
90°-150°	2767.5	55.0
90°-180°	3736.0	74.3
0°-180°	5027.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	546	546	546	546	546	
5°	545	543	539	542	542	52
15°	518	515	507	506	503	146
25°	470	463	448	443	438	216
35°	405	394	376	365	359	253
45°	331	319	297	281	274	256
55°	251	238	215	197	190	225
65°	170	156	134	118	112	169
75°	91	78	61	52	49	96
85°	23	16	13	13	12	25
90°	1	8	14	19	22	3
95°	51	47	14	19	19	66
105°	265	269	269	269	268	281
115°	498	502	503	500	494	493
125°	708	714	714	711	708	632
135°	883	888	886	884	879	680
145°	1024	1025	1025	1026	1021	640
155°	1127	1122	1124	1126	1119	519
165°	1190	1184	1185	1190	1183	336
175°	1217	1212	1212	1218	1211	116
180°	1217	1217	1217	1217	1217	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	545.6	545.6	545.6	545.6	545.6	545.6	545.6	545.6	545.6	545.6	545.6
2.5°	546.6	546.4	546.2	546.0	545.7	545.3	544.6	543.8	543.1	542.3	543.1
5°	544.8	544.5	544.1	543.7	543.3	542.7	541.6	540.6	539.7	538.6	539.6
7.5°	539.5	539.1	538.8	538.4	538.1	537.3	536.1	534.8	533.7	532.4	533.1
10°	534.5	534.2	534.0	533.7	533.4	532.6	531.4	530.0	528.8	527.5	527.8
12.5°	528.9	528.5	528.2	527.9	527.5	526.5	524.8	523.1	521.3	519.6	519.8
15°	518.0	517.5	516.9	516.4	515.9	514.6	512.6	510.8	508.8	506.9	506.8
17.5°	505.8	504.9	504.1	503.2	502.4	500.8	498.3	495.9	493.5	491.1	490.6
20°	496.1	495.3	494.4	493.5	492.5	490.6	487.7	484.7	481.8	478.8	478.4
22.5°	485.6	484.7	483.8	482.9	482.0	480.0	476.9	473.9	470.7	467.7	466.8
25°	469.8	468.4	467.1	465.7	464.3	461.9	458.5	455.1	451.7	448.4	447.2
27.5°	451.7	450.0	448.4	446.7	445.0	442.4	438.7	435.1	431.5	427.8	426.1
30°	438.5	436.8	435.0	433.3	431.5	428.7	424.9	421.1	417.2	413.3	411.3
32.5°	425.6	423.6	421.6	419.5	417.5	414.6	410.6	406.7	402.8	398.9	396.5
35°	404.7	402.5	400.3	398.1	395.9	392.7	388.6	384.5	380.4	376.3	373.6
37.5°	384.1	381.5	378.8	376.1	373.4	370.0	365.8	361.5	357.3	353.0	349.8
40°	369.7	366.9	364.2	361.4	358.6	355.1	350.7	346.3	341.9	337.5	334.0
42.5°	354.5	351.7	348.8	346.1	343.2	339.6	335.0	330.5	325.9	321.4	318.1
45°	331.4	328.7	326.0	323.3	320.7	316.8	311.8	306.8	301.8	296.8	293.0
47.5°	307.4	304.5	301.8	298.9	296.1	292.2	287.1	282.0	277.0	271.9	268.1
50°	292.2	289.2	286.1	283.1	280.1	276.0	270.7	265.6	260.3	255.1	251.3
52.5°	275.7	272.6	269.5	266.4	263.3	259.3	254.4	249.4	244.5	239.6	235.5
55°	251.4	248.4	245.5	242.6	239.7	235.7	230.5	225.3	220.3	215.1	211.0
57.5°	226.9	223.7	220.5	217.4	214.3	210.3	205.3	200.4	195.5	190.5	186.5
60°	211.0	207.8	204.6	201.3	198.1	194.1	189.1	184.2	179.2	174.3	170.3
62.5°	194.2	191.1	188.1	185.0	181.9	177.9	172.9	167.9	162.8	157.8	154.1
65°	170.2	167.1	164.0	160.9	157.7	153.7	148.9	144.1	139.2	134.4	130.7
67.5°	146.4	143.3	140.2	137.1	133.9	130.0	125.4	120.7	116.1	111.5	108.1
70°	130.2	127.2	124.0	120.9	117.8	114.0	109.3	104.8	100.2	95.6	92.7
72.5°	114.4	111.4	108.3	105.3	102.3	98.5	94.3	90.0	85.7	81.4	78.8
75°	90.7	87.9	85.2	82.4	79.7	76.4	72.5	68.7	64.8	61.0	58.9
77.5°	67.1	64.9	62.7	60.5	58.3	55.6	52.6	49.5	46.5	43.3	41.9
80°	53.6	51.4	49.2	47.0	44.8	42.4	39.9	37.3	34.7	32.1	31.3
82.5°	40.4	38.4	36.5	34.4	32.5	30.6	28.9	27.1	25.3	23.5	23.2
85°	22.6	21.0	19.4	17.7	16.1	15.0	14.5	14.1	13.6	13.2	13.1
87.5°	7.8	7.6	7.4	7.2	7.0	7.0	7.2	7.4	7.6	7.8	8.0
90°	0.9	2.5	4.1	5.7	7.3	8.8	10.3	11.6	13.0	14.4	15.4
92.5°	13.9	12.8	11.7	10.5	9.4	9.5	10.7	11.9	13.2	14.4	15.4
95°	51.4	50.8	50.2	49.6	49.0	44.9	37.3	29.7	22.0	14.4	15.4
97.5°	107.4	108.4	109.5	110.6	111.6	104.7	89.6	74.5	59.5	44.4	38.7
100°	150.6	151.2	151.8	152.4	153.0	153.7	154.5	155.3	156.1	156.9	127.1
102.5°	194.7	195.4	196.2	196.9	197.7	198.3	198.8	199.2	199.7	200.2	194.6
105°	265.1	265.9	266.7	267.5	268.3	268.8	268.8	268.8	268.8	268.8	268.8
107.5°	338.4	338.4	338.4	338.4	338.4	338.6	338.9	339.4	339.7	340.2	340.2
110°	386.0	386.0	386.0	386.0	386.0	386.2	386.6	387.0	387.4	387.8	387.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	430.7	431.2	431.7	432.1	432.7	433.0	433.3	433.5	433.7	434.0	433.2
115°	497.8	498.8	499.8	500.8	501.9	502.4	502.7	502.8	503.0	503.2	502.4
117.5°	567.3	567.2	567.2	567.1	567.1	567.5	568.2	569.0	569.7	570.5	569.4
120°	610.6	610.4	610.1	609.9	609.8	609.9	610.6	611.2	611.7	612.3	612.0
122.5°	648.8	649.5	650.3	651.0	651.8	652.4	652.6	652.9	653.2	653.4	653.1
125°	707.9	709.4	710.8	712.1	713.5	714.3	714.3	714.3	714.3	714.3	713.5
127.5°	764.4	765.4	766.4	767.4	768.4	768.8	768.7	768.7	768.5	768.4	767.9
130°	799.1	800.0	801.0	802.0	803.1	803.6	803.9	804.1	804.2	804.4	803.9
132.5°	833.7	834.8	836.0	837.1	838.3	838.7	838.2	837.8	837.3	837.0	836.8
135°	882.9	884.1	885.3	886.5	887.7	888.1	887.7	887.3	886.9	886.5	886.1
137.5°	928.2	929.3	930.2	931.3	932.4	932.7	932.4	932.0	931.6	931.2	931.3
140°	957.8	958.1	958.6	958.9	959.4	959.5	959.3	959.0	958.9	958.7	959.0
142.5°	984.4	984.7	985.0	985.2	985.4	985.7	986.0	986.2	986.5	986.8	986.9
145°	1023.6	1024.0	1024.4	1024.8	1025.2	1025.4	1025.4	1025.4	1025.4	1025.4	1025.6
147.5°	1057.8	1057.8	1057.7	1057.7	1057.6	1057.7	1057.8	1058.1	1058.4	1058.5	1058.8
150°	1079.5	1079.1	1078.7	1078.3	1077.9	1077.9	1078.3	1078.7	1079.1	1079.5	1080.0
152.5°	1100.5	1099.6	1098.7	1097.8	1096.9	1096.7	1097.1	1097.5	1097.9	1098.2	1098.7
155°	1127.3	1126.1	1124.9	1123.7	1122.5	1122.1	1122.5	1122.9	1123.3	1123.7	1124.3
157.5°	1148.1	1147.4	1146.7	1145.9	1145.1	1144.9	1144.9	1144.9	1145.0	1145.0	1145.7
160°	1162.5	1161.3	1160.1	1158.9	1157.7	1157.2	1157.4	1157.6	1157.8	1158.0	1158.8
162.5°	1174.0	1172.9	1171.6	1170.5	1169.2	1168.7	1168.9	1169.1	1169.3	1169.5	1170.6
165°	1189.5	1188.4	1187.1	1186.0	1184.7	1184.2	1184.5	1184.6	1184.8	1185.0	1186.2
167.5°	1201.0	1199.9	1198.6	1197.4	1196.1	1195.6	1195.8	1196.0	1196.2	1196.4	1197.8
170°	1207.6	1206.2	1204.8	1203.4	1201.9	1201.4	1201.6	1201.8	1201.9	1202.2	1203.8
172.5°	1211.9	1210.5	1209.1	1207.7	1206.3	1205.8	1206.1	1206.5	1206.8	1207.2	1208.6
175°	1216.6	1215.4	1214.2	1213.0	1211.7	1211.3	1211.5	1211.7	1211.9	1212.1	1213.7
177.5°	1218.8	1217.8	1216.8	1215.8	1215.0	1214.5	1214.7	1214.9	1215.0	1215.1	1216.3
180°	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	545.6	545.6	545.6	545.6	545.6	545.6	545.6	545.6
2.5°	543.8	544.6	545.3	545.6	545.5	545.5	545.4	545.3
5°	540.5	541.4	542.2	542.7	542.5	542.2	542.1	541.9
7.5°	533.7	534.4	535.0	535.2	535.0	534.8	534.7	534.4
10°	528.1	528.3	528.6	528.6	528.3	528.1	527.8	527.5
12.5°	520.0	520.2	520.4	520.3	519.9	519.4	519.1	518.6
15°	506.7	506.6	506.5	506.0	505.2	504.4	503.6	502.7
17.5°	490.2	489.7	489.3	488.7	488.0	487.3	486.6	486.0
20°	478.0	477.5	477.1	476.4	475.5	474.7	473.9	473.1
22.5°	465.8	464.9	464.0	463.2	462.6	461.9	461.3	460.6
25°	446.0	444.8	443.6	442.6	441.5	440.5	439.5	438.5
27.5°	424.5	422.8	421.2	419.9	418.9	417.9	417.0	416.0
30°	409.1	407.1	404.9	403.5	402.6	401.8	401.0	400.2
32.5°	394.2	391.9	389.5	387.9	386.8	385.8	384.7	383.7
35°	371.0	368.3	365.6	363.6	362.4	361.1	359.8	358.6
37.5°	346.6	343.5	340.3	338.0	336.8	335.6	334.3	333.1
40°	330.6	327.1	323.6	321.3	320.2	319.1	318.0	316.9
42.5°	314.7	311.4	308.0	305.6	304.0	302.3	300.7	299.1
45°	289.4	285.7	282.0	279.6	278.2	276.8	275.4	274.0
47.5°	264.4	260.6	256.8	254.1	252.6	251.1	249.6	248.1
50°	247.4	243.5	239.7	237.1	235.8	234.3	233.0	231.6
52.5°	231.3	227.2	223.0	220.3	218.9	217.6	216.2	214.8
55°	206.9	202.8	198.7	195.8	194.4	192.9	191.5	190.0
57.5°	182.4	178.4	174.3	171.7	170.4	169.1	167.8	166.5
60°	166.3	162.2	158.2	155.5	154.1	152.8	151.4	150.0
62.5°	150.3	146.6	142.9	140.4	138.9	137.6	136.3	134.8
65°	127.0	123.3	119.7	117.2	115.8	114.4	113.1	111.6
67.5°	104.7	101.4	98.0	95.8	94.7	93.6	92.5	91.4
70°	90.0	87.1	84.3	82.3	81.1	80.1	79.0	77.8
72.5°	76.2	73.6	71.0	69.3	68.6	67.9	67.1	66.3
75°	57.0	54.9	53.0	51.6	51.0	50.3	49.7	49.0
77.5°	40.6	39.1	37.7	36.7	36.3	35.8	35.3	34.9
80°	30.5	29.7	28.9	28.4	28.2	28.0	27.8	27.6
82.5°	22.8	22.4	22.0	21.8	21.7	21.6	21.5	21.3
85°	13.0	12.9	12.8	12.8	12.7	12.6	12.5	12.4
87.5°	8.2	8.5	8.6	8.7	8.8	8.8	8.9	8.9
90°	16.4	17.5	18.5	19.3	19.9	20.4	21.0	21.7
92.5°	16.4	17.5	18.5	19.1	19.4	19.6	19.9	20.2
95°	16.4	17.5	18.5	18.9	18.9	18.9	18.9	18.9
97.5°	33.1	27.4	21.8	18.9	18.9	18.9	18.9	18.9
100°	97.2	67.3	37.5	22.1	21.3	20.5	19.7	18.9
102.5°	188.9	183.2	177.6	168.0	154.4	140.7	127.1	113.4
105°	268.8	268.8	268.8	268.7	268.5	268.2	268.0	267.9
107.5°	340.3	340.3	340.4	340.1	339.5	338.9	338.2	337.7
110°	386.6	386.0	385.4	385.2	385.4	385.6	385.8	386.0





TEST NUMBER: P333650-940

CATALOG NUMBER: S125RDIW-S375D1050U940-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	432.5	431.7	431.0	430.4	430.2	429.8	429.5	429.3
115°	501.6	500.8	500.0	499.0	497.8	496.6	495.4	494.2
117.5°	568.5	567.4	566.3	565.5	565.1	564.5	564.0	563.5
120°	611.5	611.2	610.7	610.0	609.0	608.1	607.1	606.0
122.5°	652.6	652.3	651.8	651.1	650.0	648.8	647.6	646.5
125°	712.7	711.9	711.1	710.3	709.8	709.2	708.6	707.9
127.5°	767.5	767.0	766.6	765.6	764.2	762.7	761.2	759.7
130°	803.3	802.6	802.0	801.2	800.2	799.2	798.3	797.3
132.5°	836.7	836.5	836.4	835.9	834.9	833.8	832.9	831.9
135°	885.7	885.3	884.9	884.1	882.9	881.7	880.5	879.3
137.5°	931.4	931.5	931.6	931.1	930.1	929.0	928.0	926.9
140°	959.5	959.8	960.3	959.8	958.7	957.4	956.3	955.0
142.5°	986.9	987.0	987.1	986.6	985.3	984.2	982.9	981.8
145°	1025.8	1026.0	1026.2	1025.7	1024.5	1023.3	1022.1	1020.9
147.5°	1059.1	1059.4	1059.5	1059.0	1057.5	1056.1	1054.6	1053.2
150°	1080.3	1080.8	1081.1	1080.5	1078.9	1077.3	1075.7	1074.1
152.5°	1099.0	1099.5	1099.8	1099.4	1097.9	1096.4	1095.0	1093.6
155°	1124.9	1125.5	1126.1	1125.6	1124.0	1122.4	1120.8	1119.2
157.5°	1146.3	1146.9	1147.5	1147.1	1145.5	1143.9	1142.3	1140.7
160°	1159.6	1160.4	1161.2	1160.7	1159.2	1157.6	1156.0	1154.4
162.5°	1171.8	1172.9	1174.0	1173.7	1171.9	1170.2	1168.4	1166.6
165°	1187.4	1188.7	1189.8	1189.6	1188.0	1186.4	1184.8	1183.2
167.5°	1199.3	1200.7	1202.2	1202.0	1200.2	1198.4	1196.6	1194.8
170°	1205.4	1207.0	1208.6	1208.4	1206.7	1204.9	1203.1	1201.2
172.5°	1210.1	1211.6	1213.0	1212.8	1211.0	1209.2	1207.4	1205.6
175°	1215.3	1216.9	1218.5	1218.4	1216.6	1214.8	1213.0	1211.2
177.5°	1217.4	1218.5	1219.7	1219.6	1218.3	1217.0	1215.8	1214.4
180°	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6

(END OF REPORT)