

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: P333354-830

Luminaire Tested: **S125DIW-S375D1050U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333354-830  
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-S375D1050U830-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 375 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1050 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5327.8 lumens  
Efficiency: N/A  
Efficacy: 140.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: Semi-Indirect

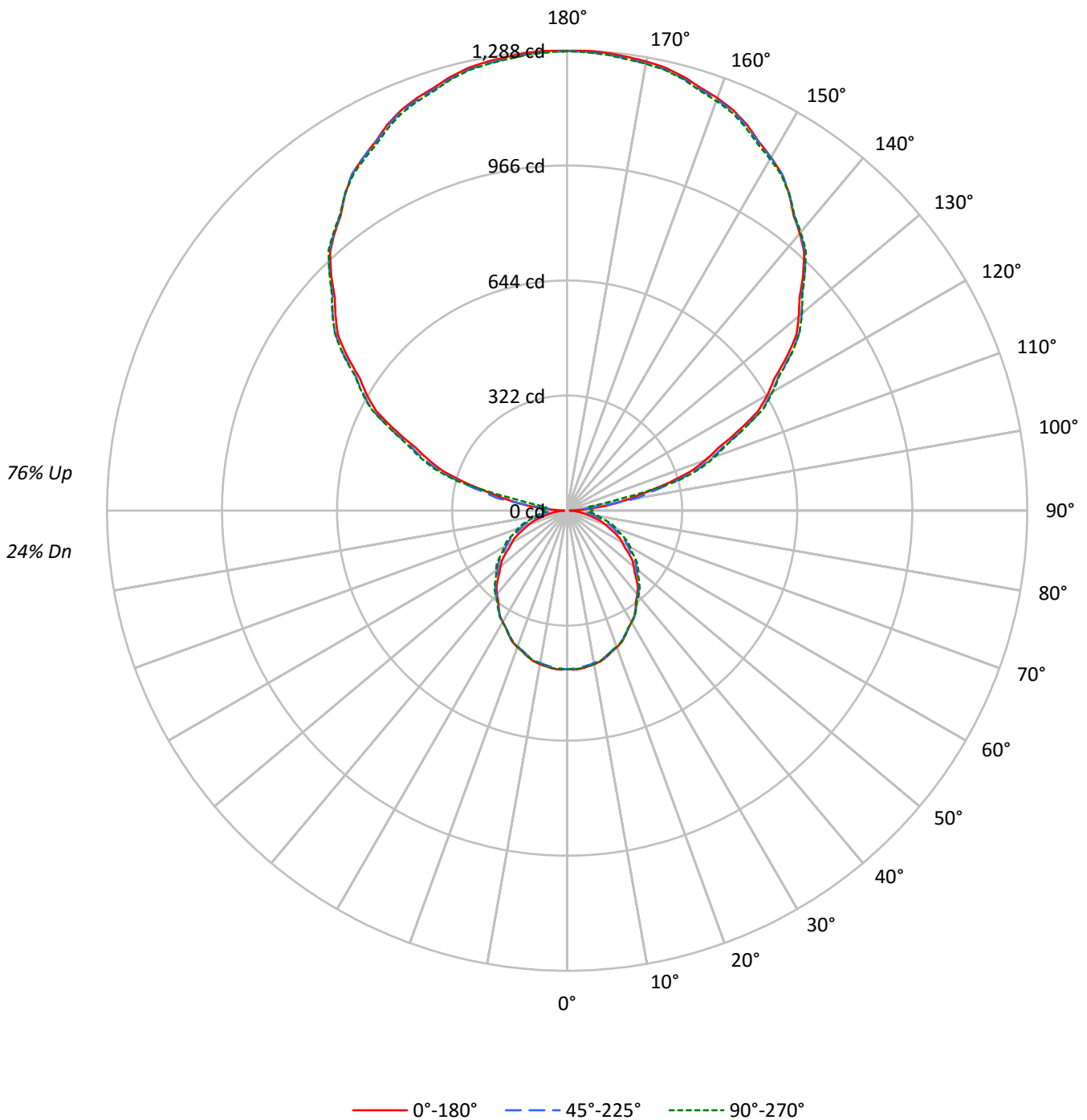
Input Watts (W): 38  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	69	69	69	50	50	50	33	33	33	24
1	92	87	83	80	81	78	75	72	60	58	56	43	42	41	28	27	27	20
2	83	76	70	65	74	68	63	58	52	49	46	38	36	34	25	23	22	16
3	76	67	59	54	67	59	53	49	46	42	38	33	31	28	22	20	19	14
4	69	59	51	45	61	52	46	41	41	36	32	29	26	24	19	17	16	12
5	63	52	44	38	56	47	40	35	36	31	28	26	23	21	17	15	14	10
6	58	47	39	33	51	42	35	30	32	28	24	24	20	18	16	14	12	9
7	54	42	34	29	48	37	31	26	29	24	21	21	18	16	14	12	11	8
8	50	38	30	25	44	34	27	23	26	22	18	20	16	14	13	11	9	7
9	46	34	27	22	41	31	25	20	24	20	16	18	15	12	12	10	9	6
10	43	31	24	20	38	28	22	18	22	18	15	16	13	11	11	9	8	6

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

	0°	45°	90°
0°	2869	2869	2869
5°	2875	2817	2826
10°	2855	2766	2762
15°	2821	2706	2681
20°	2776	2631	2601
25°	2721	2552	2502
30°	2654	2464	2411
35°	2593	2384	2329
40°	2531	2299	2245
45°	2459	2226	2171
50°	2391	2147	2106
55°	2309	2073	2030
60°	2220	1989	1951
65°	2128	1900	1864
70°	2024	1779	1773
75°	1855	1662	1662
80°	1636	1521	1540
85°	1430	1424	1502



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.0	0.8
10°-20°	119.3	2.2
20°-30°	177.4	3.3
30°-40°	210.1	3.9
40°-50°	217.2	4.1
50°-60°	200.1	3.8
60°-70°	161.8	3.0
70°-80°	108.3	2.0
80°-90°	58.8	1.1
90°-100°	78.3	1.5
100°-110°	311.3	5.8
110°-120°	537.9	10.1
120°-130°	679.2	12.7
130°-140°	724.9	13.6
140°-150°	677.6	12.7
150°-160°	547.5	10.3
160°-170°	354.1	6.6
170°-180°	122.1	2.3
0°-30°	338.7	6.4
0°-40°	548.8	10.3
0°-60°	966.1	18.1
0°-90°	1295.0	24.3
90°-120°	927.4	17.4
90°-150°	3009.1	56.5
90°-180°	4033.0	75.7
0°-180°	5327.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	444	444	444	444	444	
5°	444	443	440	444	444	42
15°	424	424	422	424	422	119
25°	386	387	384	386	384	177
35°	334	336	336	337	337	209
45°	275	280	282	285	285	212
55°	211	218	225	230	232	189
65°	146	156	166	172	174	144
75°	80	92	105	114	116	85
85°	24	38	54	63	67	26
90°	8	30	51	65	72	7
95°	60	67	47	61	64	74
105°	284	295	308	316	319	301
115°	529	537	549	553	550	524
125°	750	756	765	768	768	670
135°	934	939	941	944	941	720
145°	1082	1084	1084	1087	1083	677
155°	1192	1186	1188	1190	1183	549
165°	1257	1252	1252	1258	1251	355
175°	1286	1281	1281	1288	1280	122
180°	1286	1286	1286	1286	1286	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	444.3	444.3	444.3	444.3	444.3	444.3	444.3	444.3	444.3	444.3	444.3
2.5°	445.4	445.2	445.1	444.9	444.8	444.4	443.8	443.3	442.8	442.2	442.8
5°	444.3	444.1	443.9	443.7	443.6	443.1	442.4	441.8	441.1	440.4	441.2
7.5°	440.4	440.4	440.3	440.2	440.1	439.7	439.0	438.3	437.6	436.9	437.6
10°	436.9	436.9	436.9	436.9	436.9	436.5	435.7	435.0	434.2	433.4	434.1
12.5°	432.1	432.2	432.2	432.3	432.3	432.1	431.5	430.8	430.2	429.6	430.1
15°	424.2	424.3	424.4	424.6	424.7	424.3	423.7	423.0	422.4	421.7	422.3
17.5°	414.2	414.3	414.5	414.7	414.9	414.7	414.1	413.3	412.6	412.0	412.5
20°	406.9	407.1	407.3	407.5	407.6	407.4	406.7	406.0	405.4	404.6	405.0
22.5°	398.5	398.9	399.2	399.5	399.9	399.6	398.9	398.1	397.4	396.6	397.0
25°	385.5	385.8	386.1	386.3	386.6	386.5	386.0	385.4	384.7	384.2	384.6
27.5°	371.1	371.5	371.9	372.3	372.8	372.7	372.0	371.4	370.7	370.0	370.2
30°	360.2	360.8	361.4	362.0	362.6	362.6	362.0	361.4	360.8	360.2	360.4
32.5°	350.5	351.0	351.5	352.0	352.5	352.5	352.1	351.7	351.3	350.8	351.0
35°	333.7	334.3	335.1	335.7	336.4	336.6	336.3	336.0	335.7	335.5	335.7
37.5°	316.9	317.4	318.1	318.7	319.3	319.6	319.5	319.4	319.3	319.2	319.6
40°	305.4	306.1	306.9	307.6	308.5	308.8	308.7	308.6	308.5	308.4	308.8
42.5°	292.8	293.8	294.8	295.9	296.8	297.5	297.7	297.8	298.1	298.3	298.8
45°	274.8	276.0	277.0	278.1	279.1	279.9	280.4	280.9	281.3	281.8	282.5
47.5°	256.5	257.5	258.4	259.5	260.4	261.4	262.2	263.0	263.8	264.7	265.7
50°	243.9	245.0	246.1	247.1	248.2	249.3	250.3	251.4	252.4	253.5	254.6
52.5°	230.7	232.0	233.3	234.6	235.9	237.1	238.5	239.8	241.1	242.3	243.6
55°	211.2	212.8	214.3	215.9	217.4	219.0	220.6	222.1	223.7	225.2	226.3
57.5°	191.4	193.2	195.1	197.0	198.9	200.7	202.5	204.2	206.0	207.7	209.0
60°	178.1	180.1	182.0	184.0	185.9	187.8	189.7	191.7	193.7	195.6	197.0
62.5°	165.2	167.2	169.2	171.1	173.1	175.0	177.1	179.2	181.3	183.4	185.0
65°	145.5	147.7	150.0	152.1	154.4	156.7	159.0	161.4	163.6	166.0	167.4
67.5°	126.9	129.0	131.1	133.3	135.4	137.7	140.1	142.4	144.8	147.1	148.9
70°	113.3	115.5	117.7	119.9	122.2	124.5	127.1	129.6	132.1	134.6	136.5
72.5°	100.0	102.4	104.6	106.9	109.2	111.8	114.5	117.3	120.0	122.7	124.8
75°	80.1	82.7	85.2	87.7	90.2	93.0	96.1	99.2	102.4	105.4	107.4
77.5°	61.1	64.0	66.9	69.7	72.7	75.6	78.6	81.6	84.5	87.6	89.7
80°	49.2	52.1	55.0	58.0	60.8	63.9	67.2	70.5	73.8	77.1	79.3
82.5°	38.5	41.5	44.6	47.6	50.6	53.9	57.2	60.6	64.0	67.3	69.4
85°	23.9	27.1	30.3	33.6	36.8	40.1	43.5	46.8	50.2	53.5	55.7
87.5°	13.8	17.2	20.6	24.1	27.5	31.0	34.6	38.2	41.8	45.4	47.8
90°	7.9	12.7	17.5	22.3	27.1	31.9	36.7	41.4	46.2	51.0	54.3
92.5°	20.9	22.6	24.3	26.0	27.7	30.8	35.5	40.2	44.9	49.6	52.8
95°	60.0	61.9	63.7	65.6	67.5	66.1	61.4	56.6	51.8	47.0	50.2
97.5°	118.6	122.0	125.4	128.8	132.2	127.5	114.8	102.1	89.3	76.5	72.6
100°	164.0	166.6	169.3	172.0	174.7	178.0	181.9	185.9	189.8	193.8	164.2
102.5°	210.2	212.8	215.6	218.2	220.9	223.9	227.5	231.0	234.6	238.1	234.1
105°	284.2	286.5	289.0	291.3	293.8	296.4	299.4	302.2	305.1	308.0	310.0
107.5°	361.1	362.4	363.7	365.0	366.4	368.6	371.8	375.0	378.2	381.4	383.4
110°	411.0	412.2	413.4	414.5	415.7	417.8	420.9	424.1	427.3	430.4	431.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	458.4	459.8	461.2	462.6	464.1	466.3	469.1	472.0	474.9	477.8	478.7
115°	528.9	530.6	532.3	534.0	535.7	538.0	540.7	543.5	546.2	548.9	549.8
117.5°	601.8	602.2	602.6	602.9	603.4	605.2	608.4	611.5	614.7	617.9	618.5
120°	647.5	647.6	647.7	647.8	647.8	649.3	652.1	655.1	657.9	660.7	661.9
122.5°	687.6	688.5	689.5	690.4	691.4	693.1	695.5	698.0	700.4	702.9	704.0
125°	750.1	751.4	752.8	754.2	755.6	757.2	759.2	761.1	763.1	765.0	765.7
127.5°	809.3	810.2	811.2	812.2	813.1	814.4	815.8	817.3	818.7	820.2	821.1
130°	845.9	846.9	847.8	848.8	849.7	851.0	852.6	854.1	855.7	857.2	858.0
132.5°	882.1	883.4	884.6	885.8	887.0	887.9	888.4	889.0	889.7	890.2	891.5
135°	934.2	935.3	936.4	937.6	938.8	939.5	939.8	940.0	940.3	940.6	941.4
137.5°	981.8	982.9	983.9	985.0	986.0	986.5	986.4	986.4	986.3	986.3	987.5
140°	1012.8	1013.2	1013.6	1014.1	1014.5	1014.6	1014.6	1014.5	1014.3	1014.2	1015.7
142.5°	1041.0	1041.2	1041.4	1041.5	1041.7	1042.0	1042.3	1042.6	1042.9	1043.2	1044.2
145°	1082.4	1082.7	1083.1	1083.4	1083.7	1083.8	1083.8	1083.8	1083.8	1083.8	1084.6
147.5°	1118.1	1118.1	1118.0	1117.9	1117.9	1117.9	1118.1	1118.4	1118.7	1118.9	1119.4
150°	1141.0	1140.7	1140.2	1139.8	1139.3	1139.3	1139.8	1140.2	1140.7	1141.0	1141.5
152.5°	1163.2	1162.2	1161.3	1160.4	1159.4	1159.2	1159.6	1160.1	1160.5	1160.8	1161.3
155°	1191.6	1190.3	1189.0	1187.8	1186.5	1186.1	1186.5	1186.9	1187.3	1187.8	1188.4
157.5°	1213.5	1212.8	1212.0	1211.3	1210.4	1210.1	1210.1	1210.1	1210.2	1210.2	1211.0
160°	1228.8	1227.5	1226.2	1224.9	1223.7	1223.1	1223.3	1223.6	1223.8	1224.0	1224.8
162.5°	1241.0	1239.7	1238.4	1237.2	1235.9	1235.3	1235.6	1235.8	1236.0	1236.1	1237.4
165°	1257.4	1256.1	1254.8	1253.6	1252.3	1251.7	1252.0	1252.2	1252.4	1252.5	1253.9
167.5°	1269.5	1268.3	1267.0	1265.6	1264.3	1263.8	1263.9	1264.1	1264.4	1264.6	1266.1
170°	1276.4	1275.0	1273.5	1272.0	1270.5	1269.9	1270.1	1270.3	1270.5	1270.7	1272.4
172.5°	1281.0	1279.5	1278.0	1276.6	1275.1	1274.5	1274.9	1275.3	1275.6	1276.0	1277.5
175°	1285.9	1284.7	1283.4	1282.1	1280.8	1280.3	1280.5	1280.7	1281.0	1281.2	1282.9
177.5°	1288.3	1287.2	1286.2	1285.2	1284.2	1283.7	1283.9	1284.1	1284.2	1284.4	1285.6
180°	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	444.3	444.3	444.3	444.3	444.3	444.3	444.3	444.3
2.5°	443.3	443.8	444.4	444.6	444.5	444.5	444.4	444.3
5°	442.0	442.7	443.5	443.8	443.7	443.7	443.6	443.5
7.5°	438.3	438.9	439.6	439.9	439.8	439.7	439.6	439.5
10°	434.8	435.5	436.1	436.4	436.3	436.2	436.1	436.0
12.5°	430.6	431.1	431.7	431.8	431.6	431.3	431.0	430.8
15°	422.8	423.4	424.0	424.0	423.7	423.3	422.9	422.5
17.5°	412.9	413.3	413.8	413.9	413.7	413.4	413.2	412.9
20°	405.3	405.6	405.9	406.0	406.0	406.0	406.0	406.0
22.5°	397.4	397.8	398.1	398.2	397.9	397.8	397.5	397.3
25°	384.9	385.4	385.8	385.7	385.2	384.7	384.3	383.8
27.5°	370.5	370.8	371.1	371.2	371.0	370.8	370.6	370.4
30°	360.6	360.8	361.0	361.1	361.0	360.9	360.8	360.7
32.5°	351.2	351.4	351.6	351.7	351.6	351.5	351.4	351.3
35°	336.0	336.3	336.6	336.7	336.7	336.7	336.7	336.7
37.5°	320.0	320.4	320.7	320.9	320.9	320.8	320.8	320.7
40°	309.2	309.5	310.0	310.3	310.5	310.7	310.9	311.0
42.5°	299.3	299.7	300.2	300.4	300.5	300.5	300.5	300.6
45°	283.2	283.9	284.6	284.9	285.0	285.1	285.2	285.3
47.5°	266.6	267.7	268.6	269.2	269.5	269.7	269.8	270.0
50°	255.6	256.7	257.8	258.4	258.7	259.0	259.3	259.6
52.5°	244.7	245.8	246.9	247.6	247.8	248.1	248.3	248.5
55°	227.3	228.4	229.5	230.2	230.5	230.9	231.4	231.8
57.5°	210.2	211.4	212.6	213.4	213.7	214.0	214.3	214.6
60°	198.5	199.9	201.4	202.3	202.6	202.8	203.1	203.4
62.5°	186.6	188.2	189.8	190.8	191.1	191.5	191.9	192.3
65°	168.9	170.3	171.7	172.7	173.1	173.4	173.9	174.3
67.5°	150.7	152.4	154.2	155.3	155.8	156.4	156.8	157.3
70°	138.3	140.2	141.9	143.2	143.7	144.3	144.9	145.5
72.5°	126.8	128.8	130.7	132.0	132.3	132.8	133.2	133.7
75°	109.3	111.2	113.2	114.3	114.9	115.4	115.8	116.3
77.5°	91.8	94.0	96.0	97.4	97.7	98.1	98.5	98.9
80°	81.3	83.5	85.6	86.9	87.3	87.7	88.0	88.4
82.5°	71.4	73.5	75.6	76.9	77.7	78.3	79.0	79.7
85°	57.9	59.9	62.1	63.5	64.3	65.1	65.9	66.6
87.5°	50.2	52.7	55.1	56.7	57.6	58.3	59.2	59.9
90°	57.6	60.8	64.1	66.4	67.8	69.0	70.3	71.6
92.5°	56.0	59.2	62.4	64.5	65.5	66.4	67.4	68.4
95°	53.4	56.6	59.9	61.7	62.4	63.1	63.8	64.5
97.5°	68.6	64.7	60.8	59.1	59.8	60.4	61.1	61.7
100°	134.7	105.2	75.6	60.7	60.4	60.2	59.9	59.7
102.5°	230.1	226.0	222.1	213.1	199.3	185.5	171.6	157.8
105°	311.9	313.9	315.8	317.0	317.4	317.9	318.4	318.9
107.5°	385.3	387.3	389.3	390.2	390.2	390.1	390.1	390.1
110°	432.8	433.9	435.2	436.2	437.2	438.0	438.9	439.8





TEST NUMBER: P333354-830

CATALOG NUMBER: S125DIW-S375D1050U830-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	479.7	480.7	481.6	482.3	482.7	483.1	483.4	483.8
115°	550.7	551.6	552.5	552.6	551.9	551.2	550.5	549.8
117.5°	619.1	619.5	620.1	620.5	620.6	620.7	620.8	620.9
120°	663.2	664.4	665.6	666.0	665.5	665.1	664.6	664.1
122.5°	705.1	706.2	707.4	707.7	707.0	706.3	705.7	705.1
125°	766.4	767.1	767.8	768.1	767.9	767.8	767.6	767.5
127.5°	822.1	823.1	824.1	824.1	823.0	822.0	821.0	820.0
130°	858.8	859.4	860.2	860.3	859.7	859.0	858.5	857.9
132.5°	892.7	893.9	895.1	895.4	894.8	894.1	893.4	892.8
135°	942.2	943.0	943.9	943.9	943.1	942.4	941.5	940.8
137.5°	988.7	990.0	991.2	991.5	990.7	990.0	989.3	988.5
140°	1017.2	1018.7	1020.1	1020.5	1019.5	1018.7	1017.8	1016.9
142.5°	1045.2	1046.2	1047.2	1047.3	1046.4	1045.5	1044.6	1043.8
145°	1085.2	1085.9	1086.7	1086.6	1085.6	1084.8	1083.9	1083.0
147.5°	1119.7	1120.2	1120.6	1120.1	1118.8	1117.4	1116.1	1114.7
150°	1141.9	1142.4	1142.7	1142.2	1140.6	1139.0	1137.4	1135.8
152.5°	1161.7	1162.2	1162.5	1162.1	1160.6	1159.0	1157.5	1156.0
155°	1189.0	1189.7	1190.3	1189.8	1188.1	1186.4	1184.7	1183.0
157.5°	1211.6	1212.3	1213.0	1212.5	1210.8	1209.1	1207.4	1205.7
160°	1225.7	1226.5	1227.4	1226.9	1225.3	1223.6	1221.9	1220.2
162.5°	1238.6	1239.7	1241.0	1240.6	1238.7	1236.9	1235.0	1233.1
165°	1255.1	1256.4	1257.6	1257.4	1255.7	1254.1	1252.4	1250.7
167.5°	1267.6	1269.1	1270.7	1270.5	1268.6	1266.7	1264.8	1262.9
170°	1274.1	1275.8	1277.5	1277.3	1275.4	1273.6	1271.7	1269.7
172.5°	1279.1	1280.6	1282.1	1282.0	1280.1	1278.1	1276.2	1274.3
175°	1284.6	1286.3	1288.0	1287.9	1285.9	1284.0	1282.1	1280.3
177.5°	1286.8	1288.0	1289.2	1289.1	1287.7	1286.4	1285.1	1283.6
180°	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9

(END OF REPORT)