

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: P333199-940

Luminaire Tested: **S125DIP-S610D1205U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333199-940  
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: S125DIP-S610D1205U940-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1205 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6436.4 lumens  
Efficiency: N/A  
Efficacy: 130.3 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-Indirect

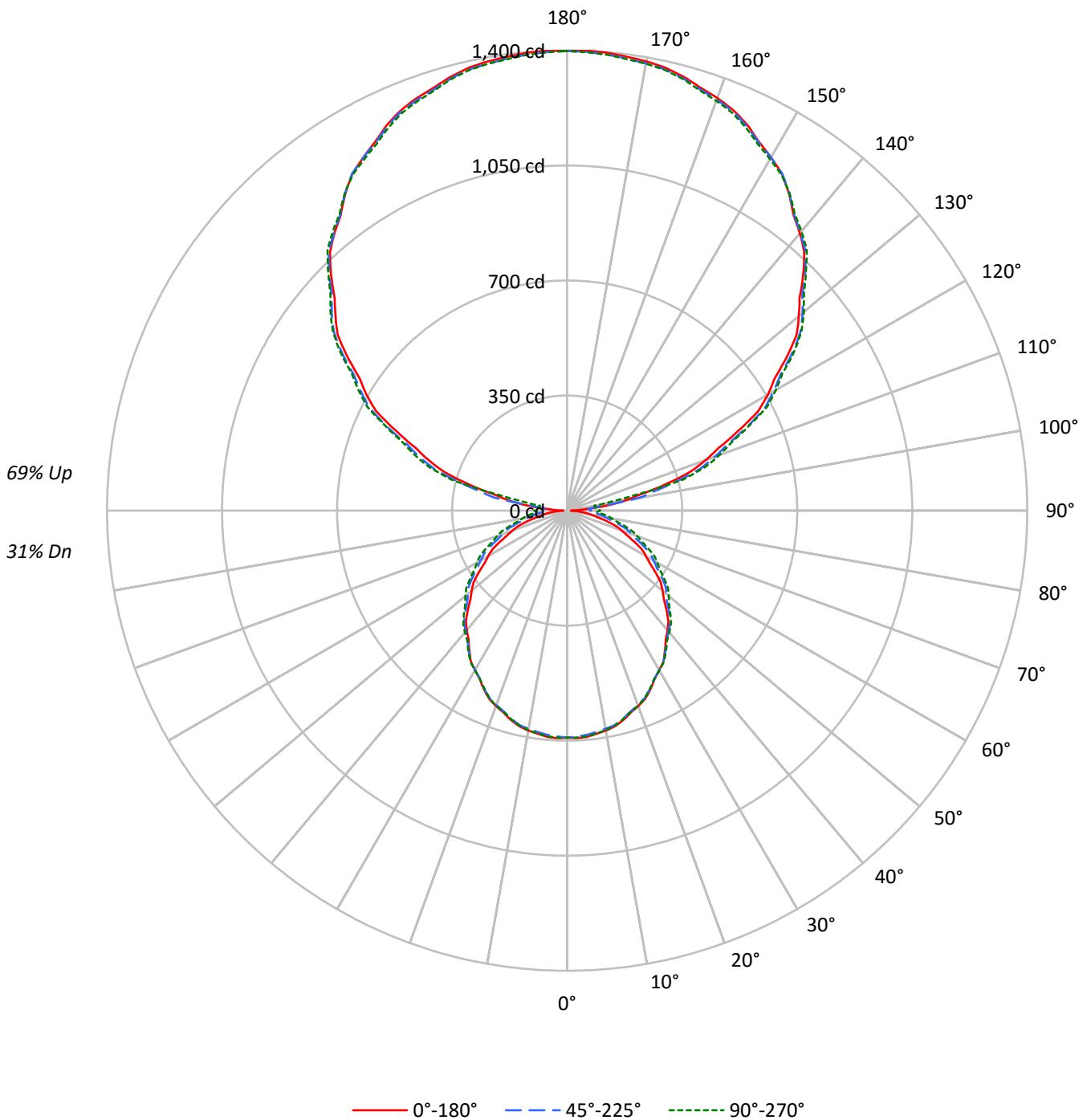
Input Watts (W): 49.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39	31
1	93	89	85	81	83	80	76	73	63	61	59	48	46	45	34	33	32	25
2	85	77	71	66	76	69	64	60	55	51	48	42	39	37	29	28	26	21
3	77	68	60	55	69	61	55	50	48	44	40	37	34	31	26	24	22	17
4	70	60	52	46	63	54	47	42	43	38	34	32	29	26	23	21	19	15
5	64	53	45	39	58	48	41	36	38	33	29	29	26	23	21	18	17	13
6	59	47	39	34	53	43	36	31	34	29	25	26	23	20	19	16	14	11
7	55	43	35	29	49	39	32	27	31	26	22	24	20	17	17	15	13	10
8	51	38	31	26	45	35	28	24	28	23	19	22	18	15	16	13	11	9
9	47	35	28	23	42	32	25	21	26	21	17	20	16	14	14	12	10	8
10	44	32	25	20	39	29	23	19	23	19	15	18	15	12	13	11	9	7

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

	0°	45°	90°
0°	4463	4463	4463
5°	4472	4380	4394
10°	4440	4302	4295
15°	4388	4209	4171
20°	4316	4093	4045
25°	4232	3969	3891
30°	4129	3833	3751
35°	4033	3708	3622
40°	3935	3576	3493
45°	3825	3463	3378
50°	3720	3340	3276
55°	3593	3225	3156
60°	3455	3093	3035
65°	3310	2956	2898
70°	3145	2767	2758
75°	2887	2586	2585
80°	2548	2365	2396
85°	2232	2219	2336



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.3	1.0
10°-20°	185.5	2.9
20°-30°	275.9	4.3
30°-40°	326.8	5.1
40°-50°	337.9	5.2
50°-60°	311.2	4.8
60°-70°	251.6	3.9
70°-80°	168.5	2.6
80°-90°	90.3	1.4
90°-100°	99.8	1.6
100°-110°	349.3	5.4
110°-120°	592.1	9.2
120°-130°	742.5	11.5
130°-140°	789.9	12.3
140°-150°	737.0	11.5
150°-160°	595.2	9.2
160°-170°	384.9	6.0
170°-180°	132.8	2.1
0°-30°	526.7	8.2
0°-40°	853.5	13.3
0°-60°	1502.6	23.3
0°-90°	2012.9	31.3
90°-120°	1041.2	16.2
90°-150°	3310.6	51.4
90°-180°	4423.0	68.7
0°-180°	6436.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	691	691	691	691	691	
5°	691	690	685	690	690	66
15°	660	660	656	660	657	186
25°	600	601	598	600	597	276
35°	519	523	522	524	524	325
45°	428	435	438	443	444	330
55°	329	339	350	357	360	294
65°	226	242	258	268	271	224
75°	125	143	164	177	181	132
85°	37	60	83	98	104	40
90°	12	42	72	92	101	10
95°	68	81	66	85	91	82
105°	311	326	346	359	363	329
115°	576	587	605	612	611	571
125°	816	823	836	843	843	729
135°	1016	1021	1024	1030	1028	783
145°	1177	1178	1178	1182	1179	736
155°	1295	1290	1291	1294	1286	597
165°	1367	1361	1362	1367	1360	386
175°	1398	1392	1393	1400	1392	133
180°	1398	1398	1398	1398	1398	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1
2.5°	692.7	692.4	692.2	692.0	691.7	691.2	690.4	689.5	688.7	687.8	688.7
5°	691.1	690.7	690.5	690.2	689.8	689.2	688.1	687.1	686.0	684.9	686.2
7.5°	684.9	684.8	684.7	684.6	684.5	683.9	682.8	681.7	680.6	679.6	680.6
10°	679.6	679.6	679.6	679.6	679.6	678.9	677.7	676.5	675.3	674.1	675.2
12.5°	672.0	672.1	672.2	672.3	672.4	672.0	671.0	670.1	669.1	668.2	669.0
15°	659.9	660.0	660.2	660.3	660.5	660.0	659.0	657.9	656.9	655.9	656.7
17.5°	644.2	644.4	644.8	645.1	645.4	645.0	644.0	642.9	641.9	640.8	641.5
20°	632.8	633.1	633.4	633.7	634.0	633.6	632.6	631.5	630.4	629.4	629.8
22.5°	619.8	620.4	620.9	621.4	622.0	621.6	620.5	619.3	618.1	617.0	617.5
25°	599.6	600.0	600.5	600.9	601.4	601.2	600.3	599.4	598.4	597.5	598.2
27.5°	577.1	577.7	578.5	579.1	579.8	579.6	578.5	577.6	576.5	575.5	575.9
30°	560.3	561.2	562.1	563.0	563.9	563.9	563.0	562.1	561.2	560.3	560.6
32.5°	545.1	545.9	546.7	547.5	548.2	548.3	547.7	547.0	546.4	545.6	546.0
35°	519.0	520.0	521.1	522.1	523.2	523.5	523.1	522.5	522.1	521.7	522.1
37.5°	492.8	493.8	494.7	495.7	496.7	497.0	497.0	496.8	496.6	496.5	497.0
40°	474.9	476.2	477.3	478.6	479.7	480.3	480.1	480.0	479.8	479.7	480.3
42.5°	455.4	457.0	458.5	460.1	461.7	462.6	463.0	463.3	463.6	464.0	464.7
45°	427.5	429.2	430.8	432.5	434.2	435.3	436.1	436.8	437.6	438.4	439.4
47.5°	399.0	400.5	402.0	403.5	405.1	406.4	407.8	409.0	410.4	411.6	413.2
50°	379.4	381.0	382.7	384.4	386.0	387.7	389.3	391.0	392.6	394.3	396.0
52.5°	358.8	360.8	362.8	364.9	366.8	368.9	371.0	372.9	375.0	376.9	378.7
55°	328.6	331.0	333.4	335.8	338.2	340.6	343.0	345.4	347.9	350.3	352.0
57.5°	297.7	300.6	303.4	306.4	309.2	312.1	314.9	317.6	320.4	323.2	325.0
60°	277.1	280.1	283.1	286.1	289.2	292.1	295.2	298.2	301.2	304.2	306.5
62.5°	257.1	260.0	263.1	266.1	269.1	272.2	275.4	278.7	282.0	285.3	287.8
65°	226.3	229.8	233.2	236.7	240.1	243.7	247.3	250.9	254.5	258.2	260.4
67.5°	197.3	200.6	203.9	207.3	210.6	214.2	217.8	221.5	225.2	228.9	231.6
70°	176.1	179.6	183.1	186.5	190.0	193.7	197.6	201.5	205.5	209.4	212.2
72.5°	155.5	159.2	162.7	166.3	169.9	173.8	178.1	182.4	186.6	190.9	194.0
75°	124.7	128.6	132.5	136.4	140.4	144.7	149.5	154.4	159.2	164.0	166.9
77.5°	95.0	99.5	104.1	108.5	113.1	117.6	122.3	126.9	131.5	136.2	139.5
80°	76.6	81.1	85.6	90.2	94.6	99.4	104.6	109.7	114.8	119.9	123.2
82.5°	59.7	64.5	69.3	74.0	78.8	83.8	89.0	94.3	99.5	104.8	107.9
85°	37.3	42.3	47.2	52.2	57.2	62.2	67.5	72.8	78.0	83.4	86.7
87.5°	21.3	26.6	31.7	36.9	42.1	47.4	52.9	58.3	63.8	69.2	72.9
90°	11.9	18.5	25.2	31.8	38.5	45.2	52.0	58.7	65.4	72.1	76.8
92.5°	25.7	28.9	32.0	35.2	38.3	43.3	49.9	56.6	63.3	70.0	74.5
95°	67.9	71.1	74.4	77.6	80.8	80.6	77.0	73.3	69.6	66.1	70.5
97.5°	131.3	136.1	140.9	145.6	150.3	146.6	134.2	121.8	109.4	97.0	93.7
100°	180.5	184.4	188.2	192.1	195.9	200.7	206.4	212.2	217.9	223.6	192.5
102.5°	230.5	234.3	238.2	241.9	245.8	250.2	255.5	260.7	266.0	271.3	267.8
105°	310.8	314.1	317.4	320.7	324.1	328.1	332.5	337.1	341.6	346.1	349.1
107.5°	394.1	396.2	398.2	400.3	402.3	405.7	410.5	415.4	420.1	424.9	427.9
110°	448.3	450.1	451.9	453.7	455.5	458.8	463.4	468.1	472.8	477.4	479.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	499.7	501.7	503.7	505.7	507.7	510.9	515.2	519.6	524.0	528.3	530.2
115°	576.1	578.4	580.5	582.7	585.0	588.1	592.3	596.4	600.6	604.7	606.5
117.5°	655.2	655.9	656.6	657.2	657.8	660.4	665.0	669.6	674.1	678.8	680.1
120°	705.0	705.2	705.4	705.6	705.9	708.0	712.2	716.4	720.5	724.7	726.7
122.5°	748.4	749.5	750.6	751.6	752.7	755.1	758.8	762.4	766.1	769.7	771.8
125°	816.3	817.7	819.1	820.6	822.1	824.3	827.3	830.4	833.3	836.3	837.9
127.5°	880.4	881.5	882.4	883.4	884.4	886.1	888.4	890.7	893.0	895.5	897.2
130°	920.2	921.2	922.2	923.2	924.3	925.9	928.3	930.6	932.9	935.2	936.7
132.5°	959.5	960.8	962.1	963.4	964.7	965.9	967.1	968.1	969.3	970.4	972.3
135°	1015.9	1017.2	1018.4	1019.6	1020.8	1021.7	1022.3	1023.0	1023.5	1024.1	1025.6
137.5°	1067.8	1068.9	1070.0	1071.0	1072.1	1072.7	1072.8	1072.9	1073.0	1073.1	1075.0
140°	1101.3	1101.7	1102.2	1102.6	1103.1	1103.3	1103.2	1103.1	1103.0	1103.0	1105.1
142.5°	1131.9	1132.1	1132.2	1132.4	1132.6	1132.8	1133.2	1133.5	1133.9	1134.3	1135.8
145°	1176.9	1177.2	1177.5	1177.9	1178.1	1178.3	1178.3	1178.3	1178.3	1178.3	1179.3
147.5°	1215.6	1215.5	1215.4	1215.3	1215.2	1215.3	1215.6	1215.8	1216.2	1216.5	1216.9
150°	1240.5	1240.0	1239.6	1239.1	1238.7	1238.7	1239.1	1239.6	1240.0	1240.5	1240.9
152.5°	1264.5	1263.6	1262.5	1261.5	1260.4	1260.2	1260.7	1261.1	1261.6	1262.0	1262.5
155°	1295.4	1294.1	1292.6	1291.3	1289.9	1289.4	1289.9	1290.3	1290.8	1291.3	1292.0
157.5°	1319.3	1318.4	1317.6	1316.8	1315.9	1315.5	1315.6	1315.6	1315.7	1315.7	1316.4
160°	1335.9	1334.4	1333.1	1331.7	1330.3	1329.7	1330.0	1330.2	1330.4	1330.6	1331.6
162.5°	1349.1	1347.7	1346.3	1345.0	1343.5	1343.0	1343.2	1343.5	1343.7	1343.9	1345.2
165°	1366.9	1365.6	1364.1	1362.8	1361.4	1360.8	1361.0	1361.3	1361.5	1361.7	1363.2
167.5°	1380.2	1378.8	1377.3	1375.9	1374.5	1373.9	1374.1	1374.3	1374.6	1374.8	1376.4
170°	1387.7	1386.1	1384.4	1382.8	1381.2	1380.5	1380.7	1381.0	1381.2	1381.4	1383.3
172.5°	1392.6	1391.0	1389.4	1387.8	1386.2	1385.5	1386.0	1386.4	1386.8	1387.2	1388.9
175°	1398.0	1396.6	1395.3	1393.8	1392.5	1391.9	1392.1	1392.4	1392.6	1392.9	1394.6
177.5°	1400.5	1399.4	1398.3	1397.2	1396.1	1395.6	1395.8	1396.0	1396.2	1396.3	1397.7
180°	1398.0	1398.0	1398.0	1398.0	1398.0	1398.0	1398.0	1398.0	1398.0	1398.0	1398.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1
2.5°	689.5	690.4	691.2	691.5	691.4	691.3	691.2	691.1
5°	687.3	688.6	689.7	690.3	690.2	690.0	689.8	689.7
7.5°	681.6	682.7	683.8	684.2	684.0	683.9	683.8	683.6
10°	676.3	677.3	678.3	678.8	678.7	678.5	678.3	678.1
12.5°	669.8	670.6	671.5	671.6	671.2	670.8	670.5	670.0
15°	657.6	658.5	659.4	659.6	659.0	658.4	657.8	657.2
17.5°	642.2	642.8	643.5	643.7	643.4	643.0	642.7	642.3
20°	630.4	630.8	631.2	631.4	631.4	631.4	631.4	631.4
22.5°	618.0	618.7	619.2	619.3	618.9	618.6	618.2	617.9
25°	598.8	599.4	599.9	599.9	599.1	598.4	597.6	596.9
27.5°	576.3	576.8	577.2	577.2	576.9	576.7	576.4	576.1
30°	560.9	561.2	561.5	561.6	561.4	561.2	561.2	561.0
32.5°	546.3	546.5	546.9	547.0	546.8	546.6	546.5	546.4
35°	522.5	523.1	523.5	523.7	523.7	523.7	523.7	523.7
37.5°	497.7	498.3	498.9	499.2	499.1	499.0	499.0	498.9
40°	480.9	481.5	482.1	482.5	482.9	483.1	483.5	483.8
42.5°	465.4	466.1	466.8	467.3	467.3	467.3	467.4	467.5
45°	440.4	441.5	442.6	443.2	443.4	443.4	443.6	443.8
47.5°	414.7	416.3	417.8	418.7	419.1	419.4	419.7	420.1
50°	397.6	399.3	400.9	402.0	402.4	402.9	403.3	403.8
52.5°	380.5	382.3	384.1	385.1	385.5	385.8	386.1	386.5
55°	353.6	355.3	356.9	358.0	358.6	359.3	359.8	360.4
57.5°	327.0	328.9	330.7	331.9	332.4	332.9	333.3	333.8
60°	308.7	310.9	313.3	314.6	315.0	315.5	315.9	316.4
62.5°	290.3	292.7	295.2	296.8	297.3	297.9	298.5	299.1
65°	262.6	264.9	267.2	268.6	269.2	269.8	270.4	271.0
67.5°	234.3	237.1	239.8	241.6	242.4	243.2	244.0	244.7
70°	215.1	217.9	220.8	222.7	223.6	224.4	225.4	226.3
72.5°	197.2	200.2	203.3	205.2	205.9	206.5	207.2	207.9
75°	170.0	173.0	176.0	177.9	178.6	179.4	180.1	180.9
77.5°	142.8	146.2	149.5	151.4	151.9	152.6	153.2	153.8
80°	126.5	129.8	133.1	135.1	135.7	136.3	137.0	137.5
82.5°	111.1	114.3	117.5	119.7	120.7	121.8	122.9	123.9
85°	90.0	93.3	96.6	98.8	100.0	101.2	102.5	103.6
87.5°	76.6	80.3	83.9	86.4	87.6	88.7	90.0	91.1
90°	81.3	86.0	90.6	93.8	95.5	97.3	99.0	100.8
92.5°	78.9	83.5	87.9	90.9	92.3	93.6	95.0	96.4
95°	75.0	79.5	83.9	86.7	87.7	88.7	89.8	90.9
97.5°	90.4	87.0	83.7	82.6	83.6	84.6	85.6	86.7
100°	161.4	130.2	99.1	83.5	83.5	83.5	83.5	83.4
102.5°	264.4	260.9	257.4	248.3	233.6	218.8	204.1	189.3
105°	352.1	355.1	358.1	360.1	360.9	361.7	362.5	363.4
107.5°	431.0	434.0	437.0	438.6	438.9	439.2	439.3	439.6
110°	481.8	483.9	486.2	487.9	489.2	490.4	491.7	493.0





TEST NUMBER: P333199-940

CATALOG NUMBER: S125DIP-S610D1205U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	532.1	534.0	535.8	537.1	537.9	538.6	539.3	540.0
115°	608.2	610.0	611.9	612.5	612.1	611.5	611.1	610.6
117.5°	681.4	682.9	684.2	685.1	685.5	685.9	686.3	686.8
120°	728.9	730.9	733.1	734.0	733.7	733.5	733.3	733.0
122.5°	773.7	775.7	777.7	778.5	778.0	777.6	777.1	776.7
125°	839.4	840.8	842.3	843.1	843.1	843.2	843.3	843.3
127.5°	898.8	900.6	902.3	902.8	901.9	901.1	900.3	899.5
130°	938.1	939.5	940.9	941.5	941.0	940.7	940.2	939.9
132.5°	974.3	976.3	978.3	979.0	978.5	977.9	977.4	977.0
135°	1027.2	1028.6	1030.1	1030.6	1029.9	1029.3	1028.7	1028.1
137.5°	1076.8	1078.7	1080.6	1081.2	1080.6	1080.0	1079.4	1078.8
140°	1107.2	1109.3	1111.4	1112.1	1111.3	1110.5	1109.7	1109.0
142.5°	1137.2	1138.7	1140.2	1140.6	1139.9	1139.1	1138.3	1137.5
145°	1180.3	1181.2	1182.2	1182.3	1181.6	1180.8	1180.0	1179.2
147.5°	1217.5	1218.0	1218.5	1218.1	1216.7	1215.3	1213.9	1212.5
150°	1241.4	1241.9	1242.3	1241.7	1240.0	1238.3	1236.6	1234.9
152.5°	1262.9	1263.5	1263.9	1263.3	1261.7	1260.1	1258.4	1256.8
155°	1292.6	1293.3	1294.1	1293.4	1291.6	1289.8	1287.9	1286.1
157.5°	1317.2	1317.9	1318.7	1318.1	1316.3	1314.5	1312.6	1310.7
160°	1332.5	1333.4	1334.4	1333.9	1332.0	1330.2	1328.4	1326.5
162.5°	1346.5	1347.8	1349.1	1348.7	1346.7	1344.6	1342.6	1340.6
165°	1364.5	1365.9	1367.3	1367.0	1365.2	1363.3	1361.5	1359.7
167.5°	1378.1	1379.7	1381.4	1381.3	1379.1	1377.1	1375.0	1373.0
170°	1385.1	1387.0	1388.8	1388.7	1386.6	1384.6	1382.5	1380.4
172.5°	1390.5	1392.2	1393.8	1393.7	1391.6	1389.6	1387.4	1385.4
175°	1396.5	1398.4	1400.2	1400.1	1398.0	1396.0	1393.8	1391.8
177.5°	1398.9	1400.3	1401.5	1401.4	1400.0	1398.5	1397.0	1395.5
180°	1398.0	1398.0	1398.0	1398.0	1398.0	1398.0	1398.0	1398.0

(END OF REPORT)