

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: P333199-830

Luminaire Tested: **S125DIP-S610D1205U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333199-830  
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: S125DIP-S610D1205U830-4F0-1E-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: 6803.3 lumens  
Efficiency: N/A  
Efficacy: 137.7 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

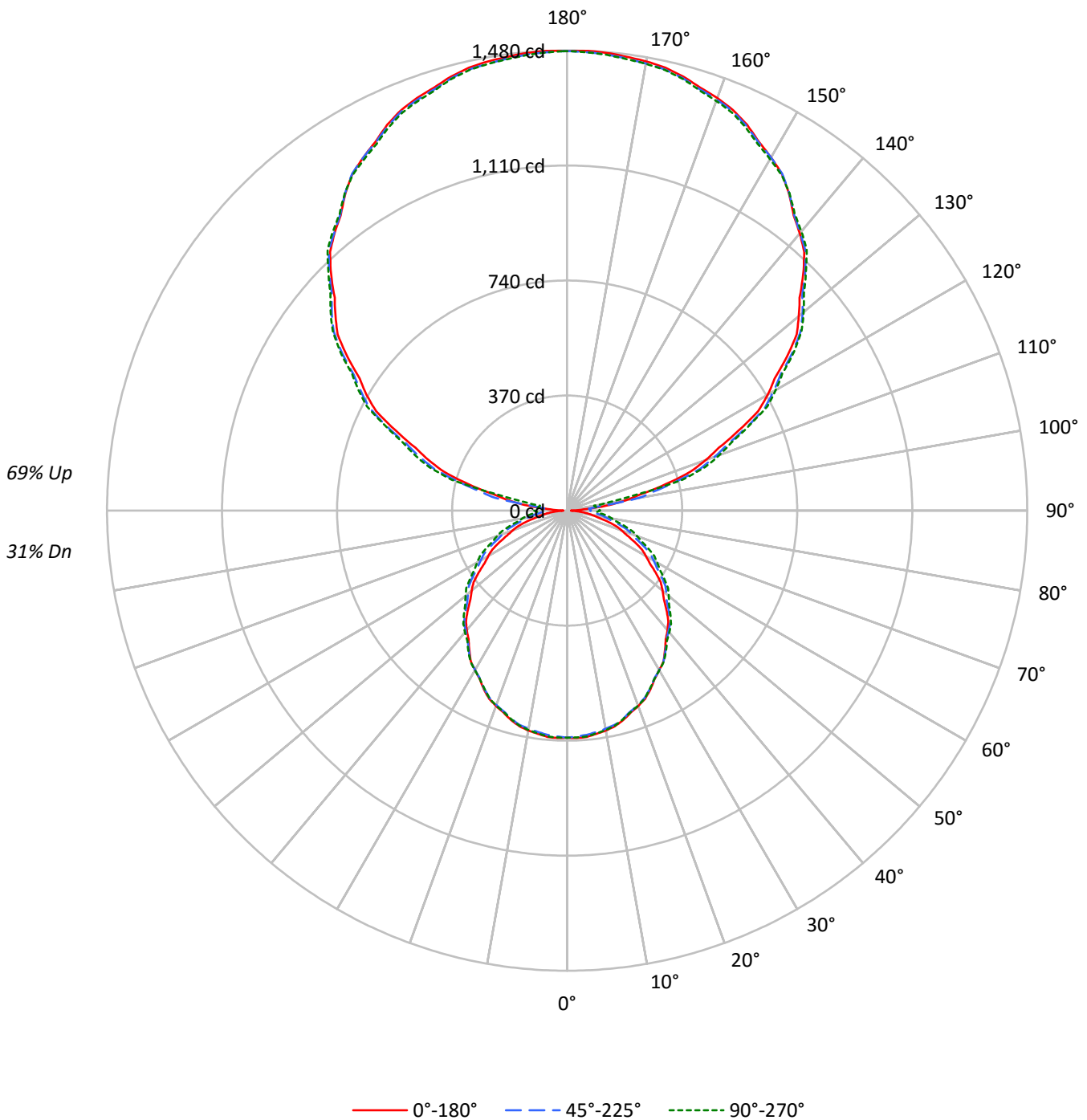
Input Watts (W): 49.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	4718	4718	4718
5°	4727	4630	4645
10°	4693	4548	4541
15°	4638	4449	4409
20°	4562	4326	4276
25°	4473	4195	4112
30°	4364	4051	3964
35°	4263	3919	3829
40°	4160	3779	3691
45°	4043	3661	3570
50°	3932	3531	3463
55°	3798	3408	3337
60°	3652	3269	3208
65°	3499	3124	3063
70°	3326	2924	2915
75°	3052	2732	2732
80°	2694	2501	2532
85°	2358	2344	2469



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.1	1.0
10°-20°	196.1	2.9
20°-30°	291.6	4.3
30°-40°	345.4	5.1
40°-50°	357.1	5.2
50°-60°	329.0	4.8
60°-70°	265.9	3.9
70°-80°	178.1	2.6
80°-90°	95.4	1.4
90°-100°	105.5	1.6
100°-110°	369.2	5.4
110°-120°	625.8	9.2
120°-130°	784.9	11.5
130°-140°	834.9	12.3
140°-150°	779.0	11.5
150°-160°	629.1	9.2
160°-170°	406.9	6.0
170°-180°	140.3	2.1
0°-30°	556.7	8.2
0°-40°	902.2	13.3
0°-60°	1588.2	23.3
0°-90°	2127.7	31.3
90°-120°	1100.5	16.2
90°-150°	3499.3	51.4
90°-180°	4676.0	68.7
0°-180°	6803.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	730	730	730	730	730	
5°	730	729	724	729	729	69
15°	698	698	693	697	695	196
25°	634	636	632	634	631	292
35°	549	553	551	554	554	343
45°	452	460	463	468	469	349
55°	347	359	370	378	381	310
65°	239	256	273	283	286	237
75°	132	151	173	187	191	140
85°	39	63	88	103	110	42
90°	12	44	76	98	106	10
95°	72	85	70	90	96	87
105°	328	345	366	380	384	348
115°	609	620	639	647	645	603
125°	863	870	884	891	891	770
135°	1074	1080	1082	1089	1087	827
145°	1244	1245	1246	1250	1246	777
155°	1369	1363	1365	1368	1359	631
165°	1445	1439	1439	1445	1437	408
175°	1478	1472	1472	1480	1471	141
180°	1478	1478	1478	1478	1478	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5
2.5°	732.2	731.9	731.7	731.4	731.1	730.6	729.7	728.8	727.9	727.0	727.9
5°	730.5	730.1	729.8	729.5	729.2	728.5	727.4	726.2	725.1	724.0	725.3
7.5°	724.0	723.9	723.8	723.6	723.5	722.8	721.7	720.6	719.4	718.3	719.3
10°	718.3	718.3	718.3	718.3	718.3	717.7	716.3	715.1	713.8	712.6	713.7
12.5°	710.3	710.4	710.5	710.7	710.8	710.3	709.3	708.3	707.3	706.2	707.1
15°	697.5	697.7	697.9	698.0	698.1	697.7	696.5	695.4	694.4	693.2	694.2
17.5°	680.9	681.2	681.6	681.8	682.2	681.7	680.7	679.6	678.4	677.3	678.1
20°	668.8	669.2	669.5	669.9	670.1	669.8	668.6	667.5	666.4	665.2	665.7
22.5°	655.2	655.7	656.3	656.9	657.4	657.0	655.8	654.6	653.4	652.1	652.7
25°	633.8	634.2	634.7	635.2	635.7	635.5	634.5	633.6	632.5	631.6	632.3
27.5°	610.0	610.7	611.4	612.1	612.8	612.7	611.5	610.5	609.4	608.3	608.7
30°	592.2	593.2	594.2	595.1	596.1	596.1	595.1	594.2	593.2	592.2	592.6
32.5°	576.2	577.0	577.9	578.7	579.5	579.6	578.9	578.2	577.5	576.7	577.1
35°	548.6	549.7	550.8	551.9	553.0	553.4	552.9	552.3	551.9	551.4	551.9
37.5°	520.9	522.0	522.9	524.0	525.0	525.4	525.3	525.1	524.9	524.8	525.4
40°	502.0	503.3	504.5	505.9	507.1	507.7	507.5	507.4	507.2	507.0	507.7
42.5°	481.4	483.1	484.7	486.4	488.0	489.0	489.4	489.7	490.0	490.4	491.2
45°	451.9	453.6	455.3	457.1	458.9	460.1	461.0	461.8	462.5	463.4	464.5
47.5°	421.7	423.3	424.9	426.5	428.2	429.6	431.0	432.3	433.8	435.1	436.8
50°	401.1	402.7	404.5	406.3	408.0	409.8	411.5	413.3	415.0	416.8	418.6
52.5°	379.3	381.4	383.5	385.7	387.8	389.9	392.1	394.2	396.3	398.4	400.3
55°	347.3	349.9	352.4	355.0	357.5	360.1	362.6	365.1	367.7	370.2	372.0
57.5°	314.7	317.7	320.7	323.9	326.9	329.9	332.8	335.7	338.7	341.6	343.6
60°	292.9	296.1	299.3	302.5	305.7	308.8	312.0	315.2	318.4	321.5	324.0
62.5°	271.7	274.8	278.1	281.3	284.5	287.8	291.2	294.6	298.0	301.5	304.2
65°	239.2	242.9	246.5	250.2	253.8	257.6	261.4	265.2	269.0	272.9	275.2
67.5°	208.6	212.1	215.6	219.1	222.6	226.4	230.3	234.1	238.0	242.0	244.8
70°	186.2	189.8	193.5	197.2	200.9	204.7	208.9	213.0	217.2	221.3	224.3
72.5°	164.4	168.2	172.0	175.8	179.6	183.7	188.2	192.7	197.3	201.8	205.1
75°	131.8	135.9	140.1	144.2	148.4	153.0	158.1	163.2	168.2	173.3	176.4
77.5°	100.4	105.2	110.0	114.7	119.5	124.3	129.2	134.1	139.0	143.9	147.4
80°	81.0	85.7	90.5	95.3	100.0	105.1	110.6	115.9	121.3	126.8	130.3
82.5°	63.2	68.1	73.2	78.2	83.3	88.6	94.1	99.6	105.2	110.7	114.0
85°	39.4	44.7	49.9	55.1	60.4	65.8	71.4	76.9	82.5	88.1	91.6
87.5°	22.5	28.1	33.6	39.0	44.5	50.1	55.9	61.6	67.4	73.1	77.0
90°	12.5	19.6	26.7	33.6	40.7	47.8	55.0	62.0	69.1	76.3	81.2
92.5°	27.1	30.5	33.8	37.2	40.5	45.8	52.8	59.9	66.9	74.0	78.7
95°	71.7	75.1	78.6	82.0	85.4	85.2	81.3	77.5	73.6	69.8	74.6
97.5°	138.8	143.8	148.9	153.9	158.9	155.0	141.9	128.8	115.6	102.5	99.1
100°	190.8	194.9	199.0	203.0	207.1	212.2	218.2	224.3	230.4	236.4	203.5
102.5°	243.6	247.7	251.8	255.7	259.8	264.5	270.0	275.6	281.2	286.7	283.0
105°	328.5	332.1	335.5	339.0	342.6	346.8	351.5	356.3	361.1	365.8	369.0
107.5°	416.6	418.8	420.9	423.1	425.3	428.9	433.9	439.0	444.0	449.1	452.3
110°	473.8	475.8	477.7	479.6	481.5	484.9	489.8	494.8	499.7	504.6	507.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	528.2	530.3	532.4	534.5	536.6	540.0	544.6	549.2	553.8	558.5	560.4
115°	609.0	611.3	613.6	616.0	618.3	621.6	626.0	630.4	634.8	639.1	641.0
117.5°	692.6	693.2	694.0	694.7	695.3	698.0	702.9	707.8	712.6	717.5	718.9
120°	745.2	745.4	745.6	745.8	746.1	748.4	752.8	757.2	761.6	766.0	768.2
122.5°	791.1	792.2	793.3	794.5	795.6	798.1	802.0	805.9	809.7	813.6	815.8
125°	862.8	864.3	865.8	867.4	868.9	871.3	874.5	877.7	880.8	884.0	885.6
127.5°	930.6	931.7	932.7	933.8	934.8	936.6	939.1	941.5	944.0	946.5	948.3
130°	972.7	973.7	974.8	975.8	976.9	978.6	981.2	983.6	986.1	988.5	990.0
132.5°	1014.2	1015.6	1016.9	1018.3	1019.6	1021.0	1022.2	1023.3	1024.5	1025.7	1027.7
135°	1073.8	1075.2	1076.5	1077.7	1079.0	1080.0	1080.6	1081.3	1081.9	1082.5	1084.1
137.5°	1128.7	1129.8	1131.0	1132.1	1133.2	1133.9	1134.0	1134.1	1134.2	1134.3	1136.2
140°	1164.0	1164.5	1165.0	1165.5	1166.0	1166.2	1166.1	1166.0	1165.9	1165.8	1168.1
142.5°	1196.5	1196.7	1196.7	1196.9	1197.1	1197.4	1197.8	1198.2	1198.5	1198.9	1200.5
145°	1244.0	1244.3	1244.6	1245.0	1245.3	1245.5	1245.5	1245.5	1245.5	1245.5	1246.5
147.5°	1284.9	1284.8	1284.7	1284.6	1284.5	1284.6	1284.9	1285.2	1285.5	1285.8	1286.3
150°	1311.2	1310.7	1310.2	1309.8	1309.3	1309.3	1309.8	1310.2	1310.7	1311.2	1311.6
152.5°	1336.6	1335.6	1334.5	1333.4	1332.3	1332.0	1332.6	1333.0	1333.5	1334.0	1334.5
155°	1369.2	1367.8	1366.3	1364.9	1363.4	1362.9	1363.4	1363.9	1364.4	1364.9	1365.6
157.5°	1394.5	1393.5	1392.7	1391.9	1390.9	1390.5	1390.6	1390.6	1390.7	1390.7	1391.5
160°	1412.0	1410.5	1409.1	1407.6	1406.2	1405.5	1405.8	1406.0	1406.3	1406.5	1407.5
162.5°	1426.0	1424.6	1423.1	1421.6	1420.1	1419.6	1419.8	1420.0	1420.3	1420.5	1421.9
165°	1444.8	1443.4	1441.9	1440.5	1439.0	1438.4	1438.6	1438.9	1439.1	1439.4	1440.9
167.5°	1458.9	1457.4	1455.9	1454.3	1452.8	1452.2	1452.5	1452.6	1452.9	1453.2	1454.9
170°	1466.8	1465.1	1463.3	1461.6	1459.9	1459.2	1459.4	1459.7	1459.9	1460.2	1462.2
172.5°	1472.0	1470.3	1468.6	1466.9	1465.2	1464.5	1465.0	1465.5	1465.8	1466.3	1468.1
175°	1477.7	1476.2	1474.8	1473.3	1471.9	1471.2	1471.5	1471.8	1472.0	1472.3	1474.1
177.5°	1480.4	1479.1	1478.0	1476.9	1475.6	1475.2	1475.4	1475.6	1475.7	1475.9	1477.3
180°	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5
2.5°	728.8	729.7	730.6	730.9	730.8	730.8	730.6	730.5
5°	726.5	727.8	729.1	729.6	729.5	729.3	729.2	729.1
7.5°	720.5	721.6	722.7	723.2	723.0	722.9	722.7	722.6
10°	714.8	715.9	717.0	717.5	717.4	717.2	717.0	716.8
12.5°	707.9	708.8	709.7	709.9	709.5	709.1	708.7	708.2
15°	695.1	696.1	697.0	697.2	696.5	695.9	695.3	694.7
17.5°	678.8	679.5	680.2	680.4	680.0	679.7	679.3	678.9
20°	666.3	666.8	667.2	667.4	667.4	667.4	667.4	667.4
22.5°	653.3	653.9	654.5	654.6	654.2	653.8	653.5	653.1
25°	632.9	633.6	634.1	634.1	633.3	632.5	631.7	630.9
27.5°	609.2	609.6	610.1	610.1	609.8	609.5	609.3	609.0
30°	592.9	593.2	593.5	593.6	593.4	593.2	593.1	593.0
32.5°	577.4	577.7	578.1	578.2	578.0	577.8	577.7	577.5
35°	552.3	552.9	553.4	553.6	553.6	553.6	553.6	553.6
37.5°	526.0	526.7	527.4	527.6	527.5	527.4	527.4	527.4
40°	508.3	509.0	509.5	510.0	510.4	510.7	511.0	511.3
42.5°	491.9	492.7	493.4	493.9	494.0	494.0	494.1	494.2
45°	465.5	466.7	467.8	468.4	468.6	468.7	468.9	469.1
47.5°	438.4	440.0	441.6	442.6	443.0	443.3	443.7	444.0
50°	420.3	422.1	423.8	424.9	425.4	425.8	426.3	426.8
52.5°	402.2	404.1	406.0	407.1	407.5	407.7	408.1	408.5
55°	373.7	375.5	377.2	378.4	379.1	379.8	380.3	381.0
57.5°	345.6	347.6	349.6	350.8	351.4	351.9	352.3	352.8
60°	326.3	328.7	331.1	332.5	333.0	333.5	333.9	334.4
62.5°	306.8	309.4	312.1	313.7	314.2	314.9	315.5	316.1
65°	277.6	280.0	282.4	283.9	284.6	285.2	285.8	286.4
67.5°	247.7	250.6	253.4	255.3	256.2	257.0	257.9	258.6
70°	227.3	230.4	233.4	235.4	236.3	237.2	238.3	239.2
72.5°	208.4	211.6	214.9	216.9	217.6	218.3	219.0	219.7
75°	179.6	182.9	186.1	188.0	188.8	189.6	190.4	191.2
77.5°	150.9	154.5	158.0	160.0	160.6	161.3	161.9	162.6
80°	133.7	137.2	140.7	142.8	143.5	144.1	144.8	145.3
82.5°	117.4	120.8	124.2	126.5	127.6	128.8	129.9	131.0
85°	95.1	98.6	102.1	104.4	105.8	107.0	108.3	109.5
87.5°	81.0	84.8	88.7	91.3	92.6	93.8	95.1	96.3
90°	86.0	90.9	95.8	99.2	100.9	102.8	104.6	106.5
92.5°	83.4	88.2	92.9	96.0	97.6	99.0	100.4	101.9
95°	79.3	84.0	88.7	91.6	92.7	93.8	94.9	96.0
97.5°	95.6	92.0	88.5	87.3	88.3	89.4	90.5	91.6
100°	170.6	137.6	104.7	88.2	88.2	88.2	88.2	88.1
102.5°	279.5	275.8	272.1	262.5	246.9	231.3	215.7	200.1
105°	372.2	375.3	378.5	380.6	381.4	382.3	383.1	384.1
107.5°	455.5	458.7	461.9	463.6	463.9	464.2	464.4	464.7
110°	509.3	511.5	513.9	515.7	517.1	518.4	519.7	521.1





TEST NUMBER: P333199-830

CATALOG NUMBER: S125DIP-S610D1205U830-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	562.4	564.4	566.4	567.7	568.5	569.3	570.0	570.8
115°	642.9	644.8	646.8	647.4	647.0	646.4	645.9	645.4
117.5°	720.3	721.8	723.2	724.2	724.6	725.0	725.5	725.9
120°	770.4	772.6	774.9	775.8	775.5	775.3	775.1	774.8
122.5°	817.8	819.9	822.0	822.8	822.4	821.9	821.4	821.0
125°	887.2	888.7	890.3	891.2	891.2	891.3	891.4	891.4
127.5°	950.1	952.0	953.8	954.2	953.3	952.4	951.6	950.7
130°	991.6	993.1	994.6	995.1	994.7	994.3	993.8	993.4
132.5°	1029.8	1032.0	1034.1	1034.8	1034.3	1033.7	1033.1	1032.6
135°	1085.7	1087.2	1088.8	1089.3	1088.6	1088.0	1087.3	1086.7
137.5°	1138.2	1140.2	1142.2	1142.8	1142.2	1141.6	1140.9	1140.3
140°	1170.4	1172.5	1174.8	1175.5	1174.7	1173.8	1173.0	1172.2
142.5°	1202.0	1203.6	1205.2	1205.6	1204.9	1204.0	1203.2	1202.3
145°	1247.5	1248.6	1249.6	1249.7	1249.0	1248.1	1247.3	1246.4
147.5°	1286.9	1287.4	1288.0	1287.5	1286.0	1284.6	1283.1	1281.7
150°	1312.2	1312.7	1313.2	1312.5	1310.7	1308.9	1307.1	1305.3
152.5°	1334.9	1335.5	1336.0	1335.3	1333.6	1331.9	1330.1	1328.4
155°	1366.3	1367.1	1367.8	1367.2	1365.3	1363.3	1361.3	1359.4
157.5°	1392.3	1393.1	1393.8	1393.3	1391.3	1389.4	1387.4	1385.4
160°	1408.4	1409.4	1410.4	1409.9	1408.0	1406.0	1404.1	1402.1
162.5°	1423.2	1424.7	1426.0	1425.6	1423.4	1421.3	1419.2	1417.0
165°	1442.3	1443.8	1445.2	1444.9	1443.0	1441.1	1439.1	1437.2
167.5°	1456.7	1458.4	1460.2	1460.0	1457.7	1455.6	1453.4	1451.2
170°	1464.1	1466.0	1468.0	1467.8	1465.7	1463.5	1461.3	1459.1
172.5°	1469.8	1471.6	1473.3	1473.1	1470.9	1468.8	1466.5	1464.3
175°	1476.1	1478.1	1480.0	1479.9	1477.7	1475.6	1473.3	1471.1
177.5°	1478.7	1480.1	1481.4	1481.3	1479.8	1478.2	1476.6	1475.1
180°	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7

(END OF REPORT)