

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: P333308

Luminaire Tested: **S125DIP-S1270D590U835-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333308  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIP-S1270D590U835-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6972.8 lumens  
Efficiency: N/A  
Efficacy: 126.5 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-Direct

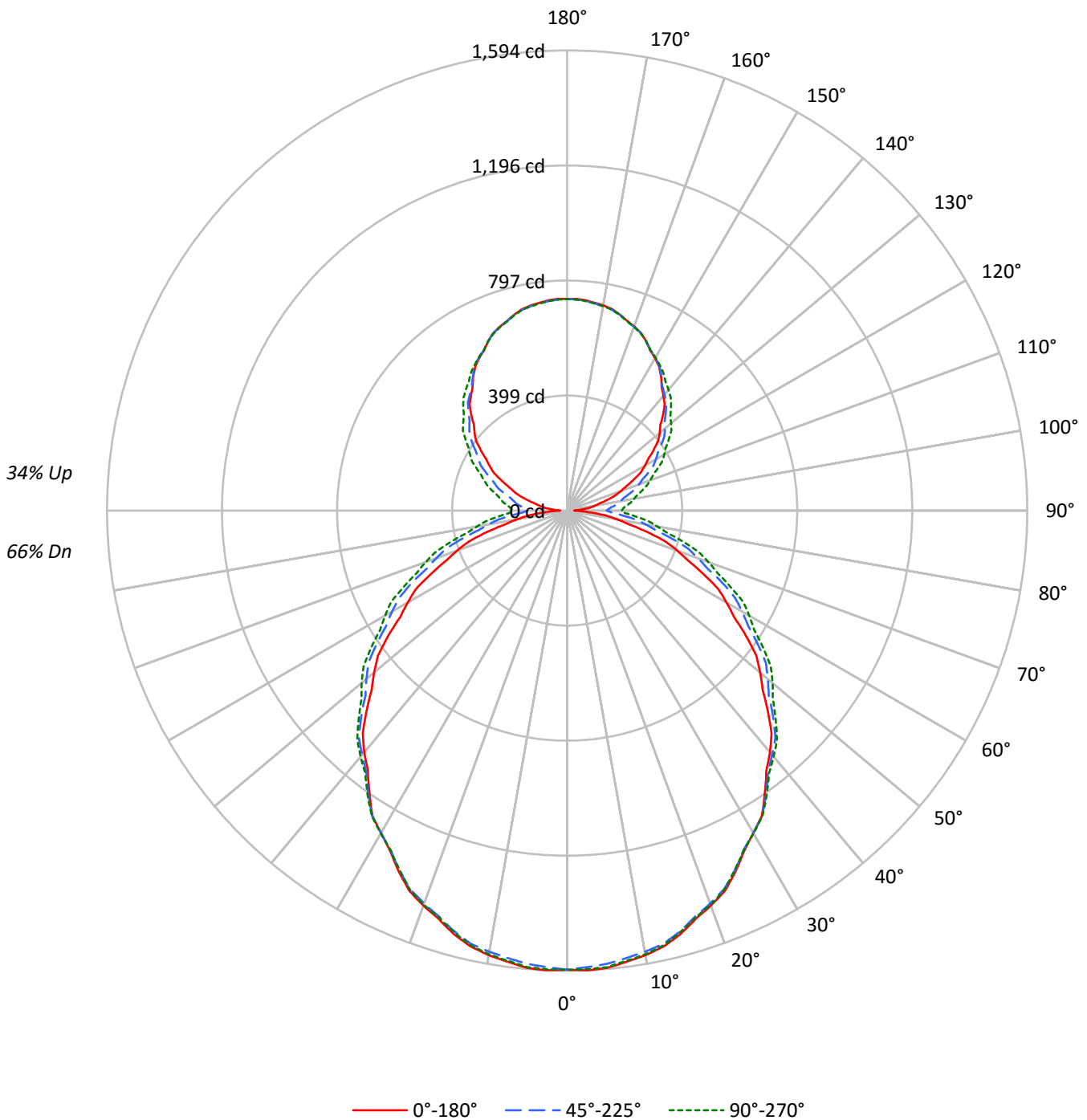
Input Watts (W): 55.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333308

CATALOG NUMBER: S125DIP-S1270D590U835-4F0-1E-UDD-D1

### Luminous Intensity Polar Plot





TEST NUMBER: P333308

CATALOG NUMBER: S125DIP-S1270D590U835-4F0-1E-UDD-D1

**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	50	30	10	50	30	10	0		
RCR																										
0	111	111	111	111	105	105	105	105	92	92	92	81	81	81	71	71	71	66								
1	100	96	91	87	94	90	86	83	80	77	74	70	68	66	61	60	58	54								
2	91	83	76	71	85	78	72	67	69	65	61	61	57	54	53	51	48	44								
3	83	73	65	58	78	69	61	56	61	55	50	54	49	45	47	44	41	37								
4	76	64	56	49	71	61	53	47	54	48	43	48	43	39	42	38	35	32								
5	70	57	48	42	65	54	46	40	48	42	37	43	38	33	38	33	30	27								
6	64	51	43	37	60	49	41	35	43	37	32	39	33	29	34	30	26	24								
7	59	46	38	32	56	44	36	31	39	33	28	35	30	26	31	27	23	21								
8	55	42	34	28	52	40	32	27	36	30	25	32	27	23	29	24	21	19								
9	51	38	31	25	48	37	29	24	33	27	23	30	24	21	26	22	19	17								
10	48	35	28	23	45	34	27	22	30	24	20	27	22	19	24	20	17	15								

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

	0°	45°	90°
0°	10271	10271	10271
5°	10291	10081	10113
10°	10218	9901	9886
15°	10097	9686	9597
20°	9933	9419	9309
25°	9738	9134	8953
30°	9501	8820	8630
35°	9281	8532	8335
40°	9056	8229	8036
45°	8802	7969	7773
50°	8560	7687	7539
55°	8269	7421	7265
60°	7950	7117	6985
65°	7617	6800	6669
70°	7241	6366	6346
75°	6643	5948	5948
80°	5861	5444	5515
85°	5135	5104	5378



TEST NUMBER: P333308

CATALOG NUMBER: S125DIP-S1270D590U835-4F0-1E-UDD-D1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	150.4	2.2
10°-20°	426.9	6.1
20°-30°	634.8	9.1
30°-40°	752.0	10.8
40°-50°	777.5	11.2
50°-60°	716.2	10.3
60°-70°	579.0	8.3
70°-80°	387.7	5.6
80°-90°	202.7	2.9
90°-100°	161.9	2.3
100°-110°	228.2	3.3
110°-120°	301.3	4.3
120°-130°	354.9	5.1
130°-140°	376.0	5.4
140°-150°	357.7	5.1
150°-160°	298.1	4.3
160°-170°	198.2	2.8
170°-180°	69.4	1.0
0°-30°	1212.1	17.4
0°-40°	1964.1	28.2
0°-60°	3457.8	49.6
0°-90°	4627.2	66.4
90°-120°	691.4	9.9
90°-150°	1780.0	25.5
90°-180°	2346.0	33.6
0°-180°	6972.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1590	1590	1590	1590	1590	
5°	1590	1587	1576	1588	1587	151
15°	1519	1519	1509	1518	1512	428
25°	1380	1384	1375	1381	1374	635
35°	1194	1204	1200	1205	1205	747
45°	984	1000	1009	1019	1021	759
55°	756	781	806	823	830	676
65°	521	557	594	616	624	517
75°	287	328	377	407	416	304
85°	86	137	192	225	238	91
90°	26	80	137	174	188	19
95°	57	100	158	195	208	55
105°	144	173	222	256	269	154
115°	255	270	310	337	346	252
125°	365	369	399	422	430	327
135°	470	472	483	503	509	362
145°	567	568	569	577	582	354
155°	647	647	648	650	647	298
165°	703	702	703	705	702	198
175°	731	729	729	732	728	69
180°	733	733	733	733	733	



TEST NUMBER: P333308

CATALOG NUMBER: S125DIP-S1270D590U835-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1590.3	1590.3	1590.3	1590.3	1590.3	1590.3	1590.3	1590.3	1590.3	1590.3	1590.3
2.5°	1594.0	1593.5	1592.9	1592.4	1591.8	1590.6	1588.6	1586.7	1584.8	1582.8	1584.8
5°	1590.3	1589.6	1588.9	1588.2	1587.5	1586.0	1583.5	1581.1	1578.7	1576.3	1579.0
7.5°	1576.3	1576.0	1575.7	1575.4	1575.2	1573.8	1571.3	1568.8	1566.3	1563.8	1566.2
10°	1563.8	1563.8	1563.8	1563.8	1563.8	1562.4	1559.6	1556.9	1554.1	1551.3	1553.7
12.5°	1546.3	1546.6	1546.9	1547.2	1547.4	1546.5	1544.3	1542.0	1539.8	1537.6	1539.5
15°	1518.6	1518.9	1519.3	1519.6	1520.0	1518.9	1516.5	1514.1	1511.7	1509.2	1511.3
17.5°	1482.4	1483.1	1483.8	1484.5	1485.2	1484.3	1481.9	1479.5	1477.0	1474.6	1476.2
20°	1456.2	1456.9	1457.6	1458.3	1459.0	1458.1	1455.7	1453.3	1450.8	1448.4	1449.5
22.5°	1426.3	1427.5	1428.8	1430.0	1431.3	1430.5	1427.8	1425.1	1422.4	1419.7	1421.0
25°	1379.8	1380.9	1381.9	1382.9	1384.0	1383.5	1381.4	1379.3	1377.2	1375.1	1376.5
27.5°	1328.1	1329.6	1331.1	1332.6	1334.2	1333.7	1331.4	1329.0	1326.7	1324.3	1325.3
30°	1289.4	1291.5	1293.5	1295.6	1297.7	1297.7	1295.6	1293.5	1291.5	1289.4	1290.1
32.5°	1254.5	1256.3	1258.1	1259.9	1261.7	1261.8	1260.3	1258.8	1257.2	1255.7	1256.4
35°	1194.3	1196.7	1199.1	1201.6	1204.0	1204.7	1203.6	1202.6	1201.6	1200.5	1201.6
37.5°	1134.1	1136.3	1138.5	1140.8	1143.0	1143.9	1143.6	1143.2	1142.9	1142.5	1143.9
40°	1092.9	1095.7	1098.5	1101.3	1104.0	1105.2	1104.9	1104.5	1104.2	1103.9	1105.2
42.5°	1048.0	1051.6	1055.2	1058.8	1062.5	1064.6	1065.4	1066.2	1066.9	1067.7	1069.3
45°	983.8	987.6	991.4	995.2	999.0	1001.8	1003.6	1005.3	1007.0	1008.7	1011.2
47.5°	918.0	921.5	925.1	928.6	932.1	935.4	938.4	941.4	944.3	947.3	950.9
50°	873.1	876.9	880.7	884.5	888.4	892.2	896.0	899.8	903.6	907.4	911.2
52.5°	825.7	830.4	835.0	839.6	844.3	848.9	853.6	858.2	862.8	867.5	871.6
55°	756.2	761.7	767.3	772.8	778.3	783.9	789.4	795.0	800.5	806.1	809.9
57.5°	685.1	691.7	698.4	705.0	711.7	718.2	724.6	730.9	737.3	743.7	748.1
60°	637.7	644.6	651.5	658.5	665.4	672.3	679.3	686.2	693.1	700.0	705.2
62.5°	591.5	598.5	605.4	612.3	619.2	626.5	633.9	641.4	648.9	656.4	662.1
65°	520.7	528.7	536.7	544.7	552.6	560.8	569.1	577.4	585.7	594.0	599.2
67.5°	454.0	461.7	469.4	477.1	484.8	492.9	501.3	509.8	518.2	526.7	533.0
70°	405.4	413.3	421.3	429.3	437.2	445.7	454.7	463.8	472.8	481.8	488.4
72.5°	358.0	366.2	374.5	382.7	391.0	400.0	409.8	419.7	429.5	439.4	446.5
75°	286.9	295.9	304.9	313.9	322.9	333.0	344.0	355.1	366.2	377.3	384.2
77.5°	218.6	229.0	239.4	249.8	260.2	270.7	281.4	292.0	302.7	313.4	321.0
80°	176.2	186.6	197.0	207.4	217.8	228.8	240.6	252.4	264.2	276.0	283.6
82.5°	137.5	148.5	159.4	170.4	181.3	192.8	204.9	216.9	229.0	241.0	248.4
85°	85.8	97.2	108.6	120.1	131.5	143.3	155.4	167.5	179.6	191.8	199.4
87.5°	48.8	60.0	71.3	82.6	93.9	105.5	117.5	129.5	141.4	153.4	161.5
90°	25.5	37.6	49.7	61.8	73.9	86.3	99.0	111.6	124.3	137.0	145.6
92.5°	36.3	47.2	58.2	69.2	80.1	92.2	105.3	118.5	131.6	144.8	153.3
95°	57.3	66.6	75.9	85.1	94.4	105.6	118.6	131.6	144.7	157.7	166.3
97.5°	80.0	88.2	96.4	104.6	112.8	123.5	136.6	149.7	162.8	176.0	184.1
100°	97.0	104.3	111.6	118.8	126.1	136.1	148.9	161.6	174.3	187.1	195.5
102.5°	115.4	122.6	129.9	137.1	144.3	153.7	165.4	177.0	188.7	200.3	208.6
105°	144.1	150.3	156.5	162.6	168.8	177.5	188.6	199.8	210.9	222.1	229.8
107.5°	176.0	181.3	186.7	192.0	197.4	205.3	215.9	226.5	237.0	247.6	254.8
110°	198.0	202.8	207.6	212.4	217.2	224.6	234.7	244.8	254.9	265.0	271.9



TEST NUMBER: P333308

CATALOG NUMBER: S125DIP-S1270D590U835-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	221.8	225.4	229.1	232.7	236.4	243.2	253.1	263.0	272.9	282.8	289.3
115°	255.2	258.2	261.1	264.0	267.0	273.1	282.3	291.6	300.8	310.1	316.2
117.5°	288.8	290.6	292.5	294.3	296.1	301.4	310.1	318.9	327.6	336.4	342.4
120°	310.7	312.4	314.1	315.7	317.4	322.3	330.4	338.5	346.6	354.7	360.6
122.5°	333.2	333.9	334.6	335.3	336.1	340.4	348.4	356.5	364.5	372.5	378.0
125°	365.1	365.5	365.9	366.3	366.7	370.5	377.5	384.6	391.6	398.7	404.0
127.5°	397.7	397.8	397.9	398.0	398.1	401.0	406.9	412.7	418.5	424.4	429.4
130°	418.3	418.6	418.8	419.1	419.4	422.1	427.2	432.3	437.4	442.5	447.3
132.5°	437.6	438.5	439.5	440.5	441.4	443.8	447.5	451.2	454.8	458.5	463.3
135°	469.8	470.2	470.6	471.0	471.4	472.9	475.5	478.0	480.6	483.1	487.6
137.5°	500.0	500.5	500.9	501.4	501.9	502.8	504.3	505.7	507.2	508.6	512.9
140°	518.4	519.0	519.7	520.3	520.9	521.6	522.3	523.1	523.8	524.5	528.6
142.5°	538.0	538.3	538.5	538.8	539.1	539.5	540.0	540.6	541.1	541.7	545.1
145°	566.9	567.1	567.2	567.4	567.5	567.8	568.2	568.6	569.0	569.3	571.1
147.5°	592.0	592.3	592.6	592.9	593.2	593.4	593.7	594.1	594.4	594.7	595.5
150°	609.8	609.7	609.6	609.5	609.3	609.5	610.0	610.5	611.0	611.5	611.5
152.5°	624.4	624.6	624.8	625.0	625.1	625.3	625.5	625.7	625.9	626.2	626.5
155°	646.9	646.9	646.9	646.9	646.9	647.0	647.1	647.2	647.4	647.5	648.0
157.5°	667.0	666.7	666.4	666.2	665.9	665.8	665.9	666.1	666.2	666.3	666.8
160°	678.9	678.5	678.1	677.7	677.3	677.2	677.3	677.5	677.6	677.7	678.2
162.5°	689.4	689.1	688.8	688.5	688.2	688.1	688.1	688.2	688.2	688.2	688.8
165°	703.4	703.1	702.9	702.6	702.4	702.3	702.4	702.6	702.7	702.8	703.3
167.5°	715.3	714.8	714.2	713.7	713.2	713.0	713.0	713.0	713.0	713.0	713.7
170°	721.6	721.1	720.6	720.1	719.6	719.4	719.4	719.4	719.4	719.4	720.1
172.5°	726.2	725.7	725.2	724.7	724.2	723.9	723.9	723.9	723.9	723.9	724.7
175°	731.3	730.8	730.3	729.8	729.3	729.1	729.1	729.1	729.1	729.1	729.8
177.5°	734.0	733.6	733.2	732.8	732.3	732.1	732.0	731.9	731.8	731.7	732.3
180°	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1



TEST NUMBER: P333308

CATALOG NUMBER: S125DIP-S1270D590U835-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1590.3	1590.3	1590.3	1590.3	1590.3	1590.3	1590.3	1590.3
2.5°	1586.7	1588.6	1590.6	1591.4	1591.1	1590.9	1590.6	1590.3
5°	1581.8	1584.6	1587.4	1588.6	1588.2	1587.9	1587.5	1587.2
7.5°	1568.6	1571.1	1573.5	1574.5	1574.2	1573.8	1573.5	1573.1
10°	1556.2	1558.6	1561.0	1562.1	1561.7	1561.4	1561.0	1560.7
12.5°	1541.3	1543.2	1545.1	1545.6	1544.7	1543.8	1542.9	1542.0
15°	1513.4	1515.5	1517.5	1517.9	1516.5	1515.1	1513.7	1512.3
17.5°	1477.8	1479.4	1481.0	1481.4	1480.5	1479.7	1478.9	1478.0
20°	1450.5	1451.5	1452.6	1453.1	1453.1	1453.1	1453.1	1453.1
22.5°	1422.4	1423.7	1425.0	1425.2	1424.4	1423.6	1422.7	1421.9
25°	1377.9	1379.3	1380.7	1380.5	1378.8	1377.0	1375.3	1373.6
27.5°	1326.3	1327.2	1328.2	1328.4	1327.7	1327.1	1326.5	1325.9
30°	1290.8	1291.5	1292.2	1292.3	1292.0	1291.6	1291.3	1290.9
32.5°	1257.1	1257.8	1258.5	1258.7	1258.3	1258.0	1257.6	1257.3
35°	1202.6	1203.6	1204.7	1205.2	1205.2	1205.2	1205.2	1205.2
37.5°	1145.3	1146.7	1148.1	1148.7	1148.5	1148.4	1148.3	1148.1
40°	1106.6	1108.0	1109.4	1110.4	1111.1	1111.8	1112.5	1113.2
42.5°	1071.0	1072.7	1074.3	1075.2	1075.4	1075.5	1075.7	1075.8
45°	1013.6	1016.0	1018.4	1019.8	1020.2	1020.5	1020.9	1021.2
47.5°	954.4	957.9	961.5	963.6	964.4	965.1	965.9	966.7
50°	915.0	918.8	922.7	925.1	926.1	927.2	928.2	929.2
52.5°	875.7	879.8	883.8	886.3	887.0	887.8	888.6	889.3
55°	813.7	817.5	821.3	823.9	825.3	826.7	828.1	829.5
57.5°	752.4	756.8	761.2	763.9	764.9	765.9	767.0	768.0
60°	710.4	715.6	720.8	723.9	725.0	726.0	727.1	728.1
62.5°	667.9	673.6	679.4	682.9	684.2	685.6	686.9	688.2
65°	604.4	609.6	614.8	618.1	619.5	620.9	622.3	623.6
67.5°	539.3	545.6	551.9	555.9	557.7	559.5	561.4	563.2
70°	494.9	501.5	508.1	512.4	514.5	516.6	518.7	520.7
72.5°	453.6	460.8	467.9	472.2	473.8	475.3	476.8	478.3
75°	391.2	398.1	405.0	409.4	411.1	412.8	414.6	416.3
77.5°	328.6	336.2	343.9	348.4	349.8	351.1	352.5	353.9
80°	291.2	298.8	306.5	311.0	312.3	313.7	315.1	316.5
82.5°	255.7	263.1	270.4	275.3	277.8	280.3	282.8	285.3
85°	207.0	214.6	222.3	227.5	230.2	233.0	235.8	238.5
87.5°	169.6	177.7	185.8	191.1	193.6	196.1	198.6	201.1
90°	154.2	162.8	171.4	177.1	179.9	182.7	185.5	188.3
92.5°	161.8	170.3	178.9	184.5	187.2	189.9	192.6	195.3
95°	174.8	183.3	191.8	197.4	200.1	202.7	205.4	208.1
97.5°	192.2	200.3	208.4	213.7	216.2	218.7	221.2	223.8
100°	203.9	212.3	220.7	226.1	228.4	230.8	233.1	235.4
102.5°	216.8	225.1	233.3	238.6	241.1	243.5	245.9	248.4
105°	237.5	245.2	252.9	258.1	260.9	263.7	266.5	269.3
107.5°	262.1	269.3	276.5	281.2	283.4	285.5	287.6	289.7
110°	278.9	285.8	292.8	297.4	299.7	302.0	304.3	306.6





TEST NUMBER: P333308

CATALOG NUMBER: S125DIP-S1270D590U835-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	295.8	302.2	308.7	313.1	315.3	317.5	319.7	321.8
115°	322.3	328.4	334.5	338.6	340.5	342.5	344.4	346.4
117.5°	348.4	354.4	360.4	364.3	366.1	368.0	369.8	371.7
120°	366.5	372.3	378.2	382.0	383.5	385.1	386.7	388.3
122.5°	383.5	389.0	394.6	398.1	399.8	401.5	403.2	404.8
125°	409.3	414.6	419.8	423.3	424.9	426.5	428.1	429.7
127.5°	434.4	439.4	444.4	447.7	449.5	451.3	453.0	454.8
130°	452.0	456.7	461.4	464.5	466.0	467.5	469.0	470.4
132.5°	468.0	472.7	477.4	480.3	481.4	482.5	483.6	484.7
135°	492.1	496.6	501.1	504.0	505.2	506.4	507.7	508.9
137.5°	517.1	521.4	525.6	528.1	528.9	529.6	530.4	531.1
140°	532.7	536.7	540.8	543.2	543.9	544.7	545.5	546.2
142.5°	548.5	551.9	555.3	557.4	558.1	558.9	559.6	560.4
145°	572.8	574.5	576.3	577.6	578.6	579.6	580.6	581.7
147.5°	596.4	597.2	598.1	598.4	598.2	597.9	597.7	597.5
150°	611.5	611.5	611.5	611.6	611.7	611.8	611.9	612.0
152.5°	626.8	627.1	627.4	627.3	626.9	626.6	626.2	625.8
155°	648.5	649.0	649.5	649.5	648.8	648.2	647.5	646.9
157.5°	667.3	667.8	668.3	668.2	667.3	666.5	665.7	664.8
160°	678.7	679.2	679.7	679.7	679.1	678.4	677.8	677.2
162.5°	689.4	690.0	690.7	690.6	689.9	689.1	688.4	687.6
165°	703.8	704.3	704.9	704.7	704.0	703.2	702.4	701.7
167.5°	714.5	715.3	716.0	716.0	715.2	714.4	713.6	712.9
170°	720.9	721.6	722.4	722.3	721.5	720.6	719.7	718.8
172.5°	725.5	726.2	727.0	727.0	726.2	725.4	724.6	723.8
175°	730.6	731.3	732.1	732.0	731.2	730.3	729.4	728.5
177.5°	732.9	733.5	734.1	734.1	733.4	732.7	731.9	731.2
180°	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1

(END OF REPORT)