

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: P333307-840

Luminaire Tested: **S125DIP-S1270D590U840-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333307-840  
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-S1270D590U840-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 590 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7362.7 lumens  
Efficiency: N/A  
Efficacy: 133.6 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

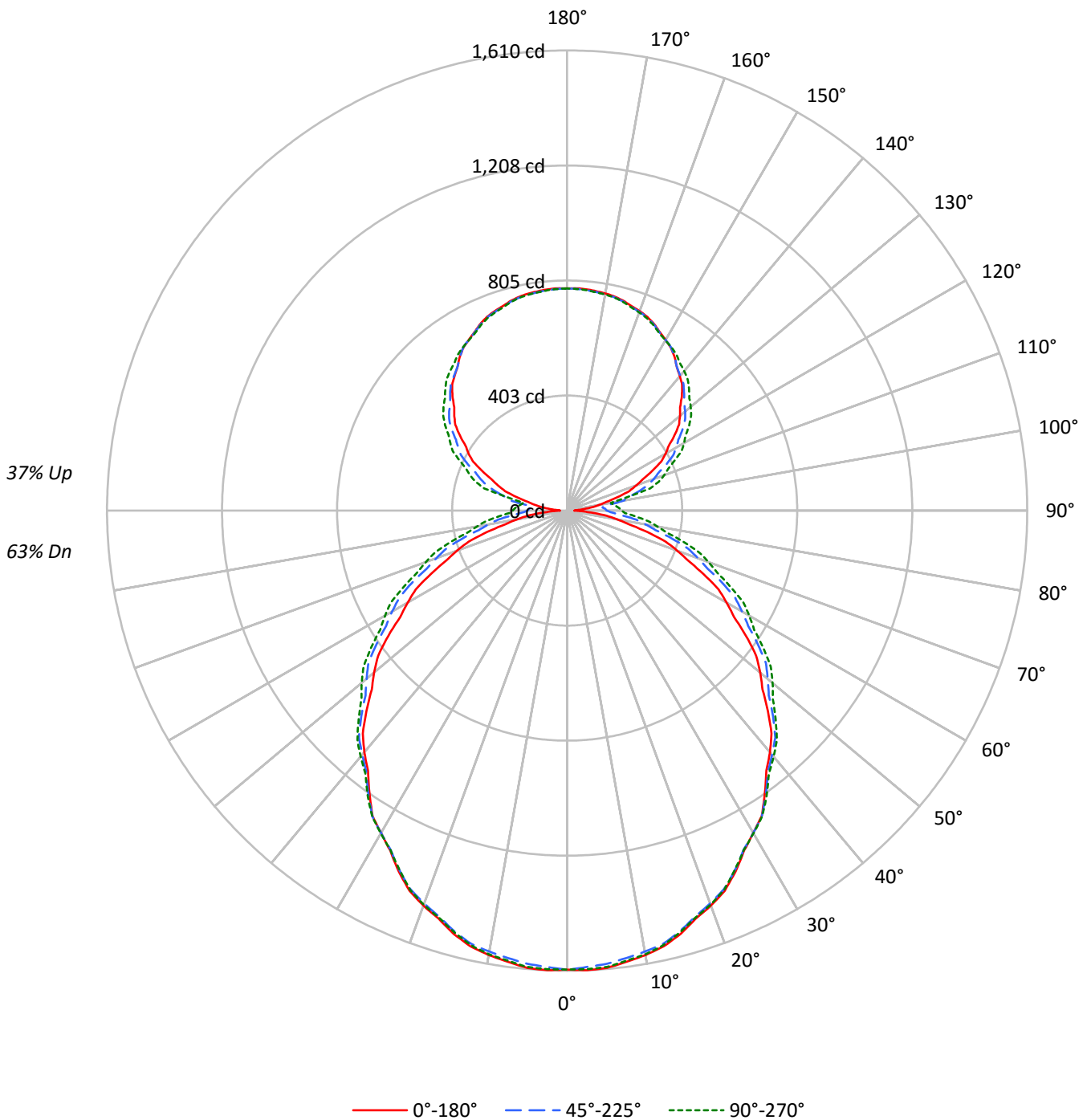
Input Watts (W): 55.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





TEST NUMBER: P333307-840

CATALOG NUMBER: S125DIP-S1270D590U840-4F0-1E-UDD-D

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	110	110	110	110	104	104	104	104	91	91	91	79	79	79	68	68	68
1	100	95	91	87	93	89	85	82	78	75	73	68	66	64	59	57	56
2	91	82	76	70	85	77	72	67	68	63	60	59	56	53	51	49	46
3	82	72	64	58	77	68	61	55	60	54	50	52	48	44	45	42	39
4	75	64	55	49	70	60	52	47	53	47	42	46	42	38	40	37	33
5	69	57	48	42	64	54	46	40	47	41	36	42	37	33	36	32	29
6	64	51	42	36	59	48	40	35	43	36	32	38	32	28	33	29	25
7	59	46	38	32	55	43	36	30	39	32	28	34	29	25	30	26	23
8	55	42	34	28	51	40	32	27	35	29	25	31	26	22	27	23	20
9	51	38	30	25	48	36	29	24	32	26	22	29	24	20	25	21	18
10	48	35	28	23	45	33	26	22	30	24	20	27	22	18	24	19	15

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

	0°	45°	90°
0°	10372	10372	10372
5°	10393	10181	10213
10°	10318	9998	9984
15°	10197	9781	9692
20°	10031	9512	9401
25°	9834	9224	9042
30°	9595	8907	8715
35°	9372	8616	8417
40°	9145	8310	8116
45°	8889	8048	7849
50°	8644	7763	7614
55°	8351	7495	7337
60°	8029	7187	7054
65°	7692	6868	6736
70°	7312	6430	6408
75°	6707	6007	6007
80°	5917	5497	5569
85°	5183	5154	5432



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	151.9	2.1
10°-20°	431.1	5.9
20°-30°	641.1	8.7
30°-40°	759.4	10.3
40°-50°	785.2	10.7
50°-60°	723.3	9.8
60°-70°	584.7	7.9
70°-80°	391.6	5.3
80°-90°	204.7	2.8
90°-100°	142.2	1.9
100°-110°	258.1	3.5
110°-120°	372.0	5.1
120°-130°	437.2	5.9
130°-140°	449.8	6.1
140°-150°	411.9	5.6
150°-160°	330.9	4.5
160°-170°	214.0	2.9
170°-180°	73.8	1.0
0°-30°	1224.1	16.6
0°-40°	1983.5	26.9
0°-60°	3491.9	47.4
0°-90°	4672.9	63.5
90°-120°	772.3	10.5
90°-150°	2071.1	28.1
90°-180°	2690.0	36.5
0°-180°	7362.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1606	1606	1606	1606	1606	
5°	1606	1602	1592	1604	1603	152
15°	1534	1534	1524	1533	1527	432
25°	1393	1397	1389	1394	1387	641
35°	1206	1216	1212	1217	1217	755
45°	994	1010	1019	1029	1031	766
55°	764	789	814	831	838	682
65°	526	562	600	623	630	522
75°	290	331	381	411	420	307
85°	87	139	194	227	241	92
90°	26	81	138	176	190	18
95°	53	92	124	160	173	58
105°	184	212	258	289	300	195
115°	328	343	383	408	415	325
125°	459	463	492	514	522	409
135°	567	570	579	597	603	437
145°	656	655	655	663	666	409
155°	720	717	718	719	715	332
165°	760	757	757	760	756	215
175°	777	774	774	778	774	74
180°	777	777	777	777	777	



TEST NUMBER: P333307-840

CATALOG NUMBER: S125DIP-S1270D590U840-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0
2.5°	1609.7	1609.2	1608.6	1608.1	1607.5	1606.3	1604.3	1602.4	1600.4	1598.4	1600.4
5°	1606.0	1605.3	1604.6	1603.9	1603.2	1601.6	1599.1	1596.7	1594.3	1591.9	1594.6
7.5°	1591.9	1591.5	1591.2	1590.9	1590.7	1589.3	1586.8	1584.3	1581.8	1579.2	1581.7
10°	1579.2	1579.2	1579.2	1579.2	1579.2	1577.8	1575.0	1572.3	1569.4	1566.6	1569.0
12.5°	1561.6	1561.9	1562.2	1562.5	1562.7	1561.8	1559.5	1557.2	1555.0	1552.8	1554.7
15°	1533.6	1533.9	1534.3	1534.6	1535.0	1533.9	1531.5	1529.0	1526.6	1524.1	1526.2
17.5°	1497.0	1497.7	1498.4	1499.1	1499.9	1498.9	1496.5	1494.1	1491.6	1489.1	1490.8
20°	1470.6	1471.3	1472.0	1472.7	1473.4	1472.5	1470.1	1467.6	1465.1	1462.7	1463.8
22.5°	1440.4	1441.6	1442.9	1444.1	1445.4	1444.6	1441.9	1439.2	1436.4	1433.7	1435.0
25°	1393.4	1394.5	1395.5	1396.5	1397.7	1397.1	1395.0	1392.9	1390.8	1388.7	1390.1
27.5°	1341.2	1342.7	1344.2	1345.7	1347.4	1346.9	1344.5	1342.1	1339.8	1337.4	1338.4
30°	1302.1	1304.2	1306.3	1308.4	1310.5	1310.5	1308.4	1306.3	1304.2	1302.1	1302.8
32.5°	1266.9	1268.7	1270.5	1272.3	1274.1	1274.2	1272.7	1271.2	1269.6	1268.1	1268.8
35°	1206.1	1208.5	1210.9	1213.5	1215.9	1216.6	1215.5	1214.5	1213.5	1212.3	1213.5
37.5°	1145.3	1147.5	1149.7	1152.1	1154.3	1155.2	1154.9	1154.5	1154.2	1153.8	1155.2
40°	1103.7	1106.5	1109.3	1112.2	1114.9	1116.1	1115.8	1115.4	1115.1	1114.8	1116.1
42.5°	1058.3	1062.0	1065.6	1069.2	1073.0	1075.1	1075.9	1076.7	1077.4	1078.2	1079.8
45°	993.5	997.3	1001.2	1005.0	1008.9	1011.7	1013.5	1015.2	1016.9	1018.7	1021.2
47.5°	927.1	930.6	934.2	937.8	941.3	944.6	947.7	950.7	953.6	956.6	960.3
50°	881.7	885.6	889.4	893.2	897.2	901.0	904.8	908.7	912.5	916.4	920.2
52.5°	833.8	838.6	843.2	847.9	852.6	857.3	862.0	866.7	871.3	876.1	880.2
55°	763.7	769.2	774.9	780.4	786.0	791.6	797.2	802.8	808.4	814.1	817.9
57.5°	691.9	698.5	705.3	712.0	718.7	725.3	731.7	738.1	744.6	751.0	755.5
60°	644.0	651.0	657.9	665.0	672.0	678.9	686.0	693.0	699.9	706.9	712.2
62.5°	597.3	604.4	611.4	618.3	625.3	632.7	640.2	647.7	655.3	662.9	668.6
65°	525.8	533.9	542.0	550.1	558.1	566.3	574.7	583.1	591.5	599.9	605.1
67.5°	458.5	466.3	474.0	481.8	489.6	497.8	506.2	514.8	523.3	531.9	538.3
70°	409.4	417.4	425.5	433.5	441.5	450.1	459.2	468.4	477.5	486.6	493.2
72.5°	361.5	369.8	378.2	386.5	394.9	403.9	413.8	423.8	433.7	443.7	450.9
75°	289.7	298.8	307.9	317.0	326.1	336.3	347.4	358.6	369.8	381.0	388.0
77.5°	220.8	231.3	241.8	252.3	262.8	273.4	284.2	294.9	305.7	316.5	324.2
80°	177.9	188.4	198.9	209.4	219.9	231.1	243.0	254.9	266.8	278.7	286.4
82.5°	138.9	150.0	161.0	172.1	183.1	194.7	206.9	219.0	231.3	243.4	250.9
85°	86.6	98.2	109.7	121.3	132.8	144.7	156.9	169.2	181.4	193.7	201.4
87.5°	49.3	60.6	72.0	83.4	94.8	106.5	118.7	130.8	142.8	154.9	163.1
90°	25.8	38.0	50.2	62.4	74.6	87.2	100.0	112.7	125.5	138.4	147.0
92.5°	31.5	41.2	50.8	60.5	70.1	81.4	94.4	107.3	120.3	133.3	141.7
95°	53.3	62.0	70.7	79.5	88.2	96.0	103.1	110.1	117.1	124.1	132.5
97.5°	87.2	96.0	104.9	113.8	122.7	128.1	129.9	131.7	133.6	135.4	139.2
100°	113.5	121.3	129.0	136.7	144.5	154.2	165.9	177.6	189.3	201.1	189.2
102.5°	140.4	147.6	154.9	162.2	169.5	178.7	190.0	201.2	212.4	223.7	227.1
105°	183.6	189.7	195.8	201.9	208.0	216.3	226.8	237.3	247.8	258.3	265.3
107.5°	228.4	233.2	238.0	242.8	247.5	255.0	265.4	275.7	286.0	296.4	303.4
110°	257.6	261.9	266.0	270.2	274.4	281.6	291.5	301.6	311.7	321.7	328.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	286.2	289.8	293.6	297.2	300.8	307.5	317.2	326.9	336.6	346.2	352.1
115°	327.5	330.6	333.7	336.8	339.8	346.0	355.3	364.5	373.7	382.9	388.7
117.5°	370.3	371.8	373.4	375.1	376.6	381.9	391.0	400.1	409.2	418.3	423.6
120°	398.0	398.9	399.8	400.7	401.6	406.3	414.8	423.1	431.6	440.0	445.8
122.5°	421.1	422.1	423.0	424.0	425.1	429.5	437.4	445.4	453.3	461.3	466.7
125°	458.6	459.2	459.7	460.2	460.8	464.5	471.5	478.6	485.5	492.5	497.7
127.5°	493.1	493.4	493.6	493.9	494.2	497.3	502.9	508.6	514.2	519.9	524.7
130°	515.2	515.5	515.7	516.0	516.3	519.1	524.0	529.1	534.1	539.2	543.6
132.5°	536.0	536.7	537.5	538.1	538.8	540.9	544.3	547.9	551.4	554.8	559.7
135°	567.2	567.6	568.0	568.5	568.9	570.2	572.4	574.6	576.7	579.0	583.3
137.5°	595.8	596.2	596.6	597.0	597.3	598.0	599.0	600.0	600.9	601.9	606.0
140°	613.5	613.7	614.0	614.2	614.5	614.7	614.9	615.2	615.4	615.6	619.8
142.5°	630.6	630.4	630.3	630.2	630.1	630.1	630.4	630.6	630.9	631.1	634.4
145°	655.5	655.4	655.3	655.2	655.1	655.1	655.1	655.1	655.1	655.1	657.0
147.5°	675.8	675.8	675.7	675.7	675.6	675.7	675.8	676.0	676.1	676.3	677.0
150°	689.6	689.4	689.1	688.9	688.6	688.6	688.9	689.1	689.4	689.6	689.9
152.5°	703.1	702.5	702.0	701.4	700.7	700.6	700.8	701.1	701.4	701.7	702.0
155°	720.2	719.4	718.7	717.9	717.1	716.9	717.1	717.4	717.6	717.9	718.3
157.5°	733.5	733.0	732.6	732.1	731.6	731.4	731.4	731.4	731.4	731.5	732.0
160°	742.7	741.9	741.1	740.3	739.6	739.3	739.4	739.5	739.6	739.8	740.3
162.5°	750.0	749.3	748.5	747.7	747.0	746.7	746.8	746.9	747.0	747.2	747.9
165°	759.9	759.2	758.4	757.7	756.9	756.6	756.7	756.8	757.0	757.1	757.8
167.5°	767.3	766.6	765.8	765.0	764.2	763.9	764.0	764.1	764.2	764.4	765.3
170°	771.5	770.6	769.7	768.8	767.9	767.5	767.6	767.8	767.9	768.0	769.0
172.5°	774.3	773.4	772.4	771.5	770.6	770.3	770.5	770.8	771.0	771.2	772.1
175°	777.3	776.5	775.7	775.0	774.2	773.9	774.0	774.2	774.3	774.4	775.4
177.5°	778.6	778.0	777.4	776.8	776.2	775.9	776.0	776.1	776.2	776.3	777.1
180°	777.3	777.3	777.3	777.3	777.3	777.3	777.3	777.3	777.3	777.3	777.3



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0
2.5°	1602.4	1604.3	1606.3	1607.1	1606.8	1606.6	1606.3	1606.0
5°	1597.4	1600.2	1603.1	1604.3	1603.9	1603.6	1603.2	1602.9
7.5°	1584.1	1586.6	1589.0	1590.0	1589.7	1589.3	1589.0	1588.6
10°	1571.6	1574.0	1576.4	1577.5	1577.1	1576.8	1576.4	1576.1
12.5°	1556.5	1558.4	1560.3	1560.8	1559.9	1559.0	1558.1	1557.2
15°	1528.3	1530.5	1532.5	1532.9	1531.5	1530.0	1528.6	1527.2
17.5°	1492.4	1494.0	1495.6	1496.0	1495.1	1494.3	1493.5	1492.6
20°	1464.8	1465.8	1466.9	1467.4	1467.4	1467.4	1467.4	1467.4
22.5°	1436.4	1437.7	1439.1	1439.3	1438.5	1437.6	1436.7	1435.9
25°	1391.5	1392.9	1394.3	1394.1	1392.4	1390.6	1388.9	1387.2
27.5°	1339.4	1340.3	1341.3	1341.5	1340.8	1340.2	1339.6	1339.0
30°	1303.5	1304.2	1304.9	1305.0	1304.7	1304.3	1304.0	1303.6
32.5°	1269.5	1270.2	1270.9	1271.1	1270.7	1270.4	1270.0	1269.7
35°	1214.5	1215.5	1216.6	1217.1	1217.1	1217.1	1217.1	1217.1
37.5°	1156.6	1158.0	1159.4	1160.0	1159.8	1159.7	1159.6	1159.4
40°	1117.5	1118.9	1120.3	1121.4	1122.1	1122.8	1123.5	1124.2
42.5°	1081.6	1083.3	1084.9	1085.8	1086.0	1086.1	1086.3	1086.4
45°	1023.6	1026.0	1028.4	1029.9	1030.3	1030.6	1031.0	1031.3
47.5°	963.8	967.3	971.0	973.1	973.9	974.6	975.4	976.2
50°	924.0	927.9	931.8	934.2	935.2	936.3	937.4	938.4
52.5°	884.3	888.5	892.5	895.0	895.8	896.6	897.4	898.1
55°	821.7	825.6	829.4	832.0	833.4	834.9	836.3	837.7
57.5°	759.8	764.3	768.7	771.4	772.4	773.5	774.6	775.6
60°	717.4	722.7	727.9	731.0	732.2	733.2	734.3	735.3
62.5°	674.5	680.2	686.1	689.6	690.9	692.4	693.7	695.0
65°	610.4	615.6	620.9	624.2	625.6	627.0	628.4	629.8
67.5°	544.6	551.0	557.3	561.4	563.2	565.0	566.9	568.8
70°	499.8	506.4	513.1	517.5	519.6	521.7	523.8	525.8
72.5°	458.1	465.3	472.5	476.9	478.5	480.0	481.5	483.0
75°	395.1	402.0	409.0	413.4	415.2	416.9	418.7	420.4
77.5°	331.8	339.5	347.3	351.8	353.3	354.6	356.0	357.4
80°	294.1	301.7	309.5	314.1	315.4	316.8	318.2	319.6
82.5°	258.2	265.7	273.1	278.0	280.5	283.1	285.6	288.1
85°	209.0	216.7	224.5	229.7	232.5	235.3	238.1	240.9
87.5°	171.3	179.5	187.6	193.0	195.5	198.0	200.6	203.1
90°	155.7	164.4	173.1	178.8	181.7	184.5	187.3	190.2
92.5°	150.1	158.5	166.9	172.5	175.1	177.7	180.4	183.0
95°	140.9	149.2	157.5	162.9	165.3	167.8	170.3	172.7
97.5°	142.9	146.6	150.4	153.4	155.8	158.1	160.6	162.9
100°	177.5	165.8	154.1	149.1	150.6	152.2	153.8	155.4
102.5°	230.6	234.0	237.4	235.9	229.2	222.7	216.1	209.4
105°	272.3	279.3	286.3	290.9	293.3	295.6	297.9	300.2
107.5°	310.2	317.2	324.2	328.5	330.3	332.1	333.9	335.7
110°	334.3	340.5	346.8	351.2	353.8	356.4	359.0	361.5





TEST NUMBER: P333307-840

CATALOG NUMBER: S125DIP-S1270D590U840-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	358.0	363.9	369.7	373.9	376.1	378.4	380.6	382.9
115°	394.5	400.3	406.1	409.6	410.9	412.2	413.6	415.0
117.5°	428.9	434.1	439.5	443.1	445.1	447.2	449.3	451.3
120°	451.4	457.1	462.8	466.4	467.9	469.3	470.7	472.2
122.5°	472.1	477.5	482.9	486.3	487.7	489.0	490.4	491.7
125°	502.7	507.8	512.9	516.1	517.5	518.9	520.2	521.6
127.5°	529.7	534.5	539.5	542.4	543.5	544.6	545.7	546.7
130°	548.2	552.7	557.1	560.0	561.1	562.2	563.3	564.4
132.5°	564.5	569.3	574.1	576.9	577.7	578.7	579.5	580.3
135°	587.5	591.9	596.1	598.7	599.8	600.8	601.7	602.7
137.5°	610.3	614.4	618.6	621.1	621.8	622.5	623.3	624.0
140°	623.8	627.9	632.1	634.4	635.0	635.7	636.3	636.9
142.5°	637.7	641.1	644.4	646.4	647.0	647.7	648.3	648.9
145°	658.8	660.8	662.6	663.9	664.5	665.1	665.8	666.4
147.5°	677.7	678.4	679.1	679.3	679.0	678.8	678.5	678.2
150°	690.1	690.4	690.6	690.4	689.8	689.1	688.4	687.8
152.5°	702.2	702.5	702.7	702.4	701.6	700.6	699.8	698.9
155°	718.7	719.0	719.4	719.1	718.1	717.1	716.1	715.0
157.5°	732.4	732.8	733.2	732.9	731.8	730.7	729.7	728.7
160°	740.8	741.3	741.8	741.5	740.5	739.5	738.5	737.5
162.5°	748.6	749.3	750.0	749.8	748.7	747.6	746.5	745.3
165°	758.6	759.4	760.1	760.0	759.0	758.0	757.0	755.9
167.5°	766.2	767.1	768.0	767.9	766.8	765.6	764.5	763.3
170°	770.1	771.1	772.1	772.0	770.9	769.7	768.6	767.5
172.5°	773.1	774.1	775.0	774.9	773.7	772.5	771.3	770.2
175°	776.4	777.4	778.5	778.4	777.3	776.1	775.0	773.8
177.5°	777.8	778.5	779.2	779.1	778.3	777.5	776.7	775.9
180°	777.3	777.3	777.3	777.3	777.3	777.3	777.3	777.3

(END OF REPORT)