

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: P333318

Luminaire Tested: **S125DIP-S1270D810U835-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333318  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIP-S1270D810U835-4F0-1E-UDD-D4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7836.1 lumens  
Efficiency: N/A  
Efficacy: 129.1 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: General Diffuse

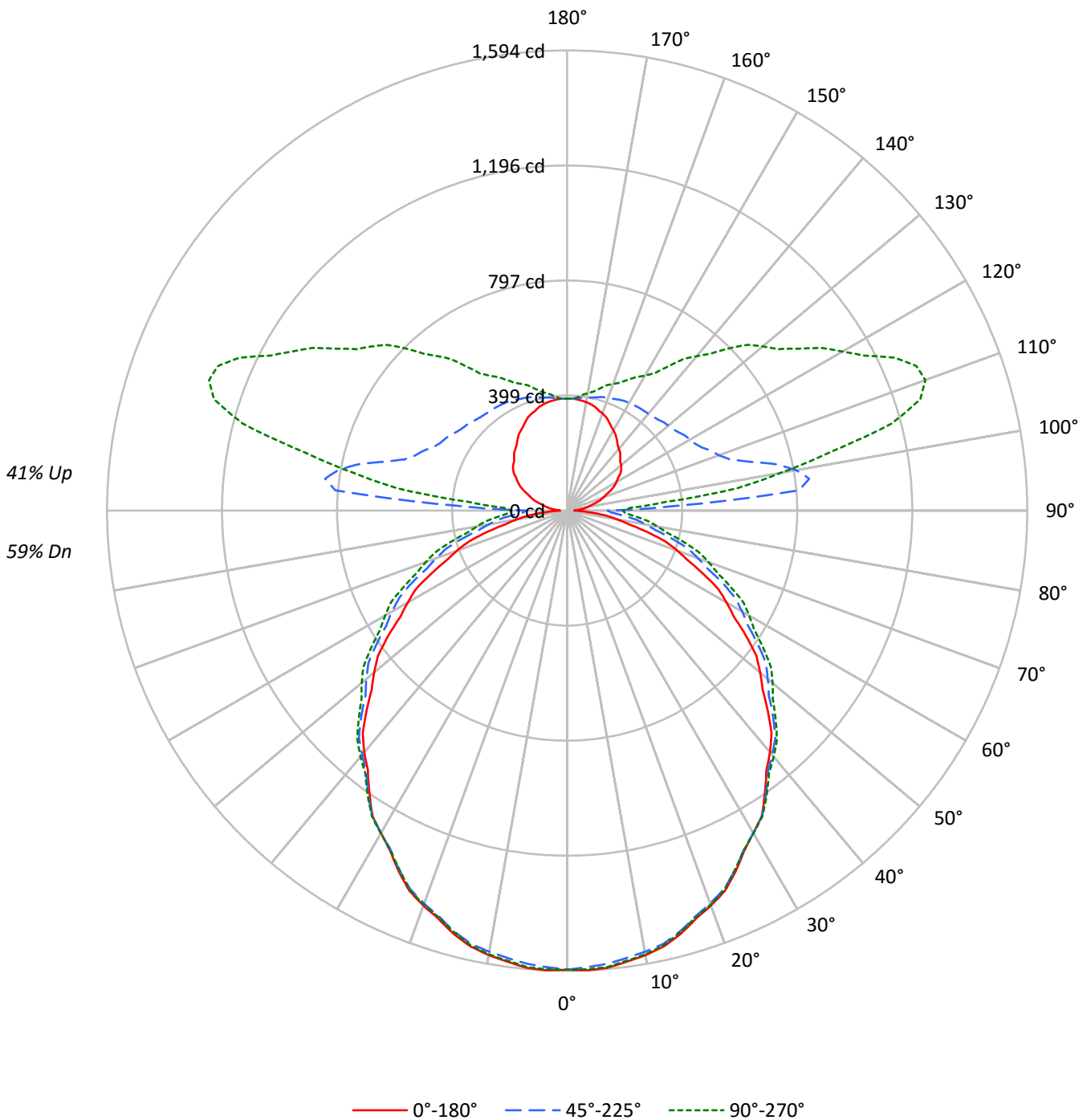
Input Watts (W): 60.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59
1	99	94	90	86	92	88	84	81	76	73	71	65	63	61	56	54	53	48
2	90	82	75	70	83	76	71	66	66	62	58	57	54	51	48	46	44	39
3	82	72	64	58	76	67	60	54	58	53	48	50	46	42	43	39	37	33
4	75	63	55	49	69	59	52	46	52	46	41	45	40	36	38	34	32	28
5	68	56	48	41	63	53	45	39	46	40	35	40	35	31	34	30	27	24
6	63	50	42	36	59	47	40	34	41	35	31	36	31	27	31	27	24	21
7	58	46	37	31	54	43	35	30	38	31	27	33	28	24	28	24	21	19
8	54	41	33	28	50	39	32	27	34	28	24	30	25	21	26	22	19	17
9	50	38	30	25	47	36	29	24	31	26	21	28	23	19	24	20	17	15
10	47	35	27	22	44	33	26	21	29	23	19	25	21	17	22	18	16	14

**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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	150.4	1.9
10°-20°	426.9	5.4
20°-30°	634.8	8.1
30°-40°	752.0	9.6
40°-50°	777.5	9.9
50°-60°	716.2	9.1
60°-70°	579.0	7.4
70°-80°	387.7	4.9
80°-90°	203.2	2.6
90°-100°	393.9	5.0
100°-110°	687.5	8.8
110°-120°	622.9	7.9
120°-130°	491.3	6.3
130°-140°	382.7	4.9
140°-150°	281.1	3.6
150°-160°	195.9	2.5
160°-170°	115.5	1.5
170°-180°	37.6	0.5
0°-30°	1212.1	15.5
0°-40°	1964.1	25.1
0°-60°	3457.8	44.1
0°-90°	4627.8	59.1
90°-120°	1704.3	21.7
90°-150°	2859.4	36.5
90°-180°	3208.0	40.9
0°-180°	7836.1	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	82	140	179	193	18
95°	46	138	807	461	343	43
105°	102	164	653	1232	1164	108
115°	167	212	516	1069	1252	165
125°	225	263	472	840	978	200
135°	260	311	446	686	796	202
145°	300	342	435	549	610	188
155°	341	367	424	479	500	157
165°	372	382	407	431	438	105
175°	387	387	390	395	393	37
180°	388	388	388	388	388	



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**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	71.4	82.8	94.2	106.0	117.9	130.0	142.0	154.0	162.2
90°	25.7	37.6	50.2	62.9	75.5	88.5	101.1	114.5	127.0	140.4	149.1
92.5°	32.0	44.3	61.1	81.1	104.8	138.7	193.5	277.2	366.9	374.9	334.6
95°	46.1	55.9	71.1	88.7	114.9	160.5	256.0	439.8	667.3	806.6	799.3
97.5°	61.2	70.3	82.8	99.5	123.1	158.1	224.9	362.3	599.4	845.8	971.0
100°	71.9	80.7	91.1	107.0	129.1	161.8	218.2	330.9	539.1	805.8	1008.6
102.5°	83.8	91.4	100.7	116.6	136.9	168.5	219.7	315.9	493.1	741.4	977.0
105°	102.4	107.9	117.4	130.7	148.8	178.7	223.5	303.4	444.4	652.6	884.0
107.5°	120.5	126.8	135.3	146.4	164.1	191.1	234.4	304.0	420.5	590.3	790.7
110°	133.7	139.4	146.7	157.9	173.8	201.0	242.8	306.4	410.7	559.6	736.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	148.1	152.9	158.8	169.1	184.2	210.3	250.5	310.8	406.0	539.6	695.1
115°	167.3	171.3	176.1	185.5	199.7	224.9	262.9	317.2	401.3	515.9	648.0
117.5°	184.5	188.4	192.5	201.2	216.1	240.0	275.9	325.7	399.5	500.4	616.5
120°	197.0	200.4	204.6	212.6	227.0	251.0	286.4	331.9	400.0	491.7	598.4
122.5°	208.9	211.1	214.1	221.6	236.6	260.3	295.3	338.7	399.7	483.5	581.9
125°	225.2	226.4	229.9	236.6	251.1	274.8	307.5	348.1	400.3	472.2	559.0
127.5°	236.6	238.6	243.2	251.8	267.3	290.3	320.8	357.4	402.7	463.1	537.4
130°	244.7	246.7	252.6	262.4	278.5	301.1	330.2	364.8	404.8	458.1	524.0
132.5°	249.7	252.6	260.1	271.4	288.4	310.6	338.5	370.1	406.5	453.1	511.5
135°	259.6	262.4	271.4	283.6	299.6	321.8	348.4	376.7	408.0	445.6	494.7
137.5°	272.1	274.2	282.6	294.9	310.7	332.9	356.1	382.0	410.7	441.0	480.7
140°	278.3	280.7	290.1	302.6	317.4	338.7	361.7	385.6	410.9	437.9	472.9
142.5°	287.1	288.5	297.0	309.3	323.2	343.0	364.5	386.7	410.6	436.0	466.8
145°	300.2	301.5	308.9	319.5	333.3	351.1	371.4	390.9	412.1	434.7	459.9
147.5°	312.4	313.4	320.1	330.3	342.5	358.3	376.1	393.8	412.8	432.7	453.9
150°	320.6	322.1	327.6	337.8	348.7	362.0	379.2	395.6	412.8	430.8	449.6
152.5°	329.3	330.3	335.1	344.0	354.4	366.4	382.3	396.9	412.2	428.3	445.2
155°	340.9	340.9	345.6	353.4	361.2	372.2	385.5	398.0	410.5	423.8	437.9
157.5°	351.2	351.1	354.8	361.5	368.4	376.7	388.1	398.8	408.5	419.1	431.0
160°	358.1	357.3	360.5	365.9	372.2	379.2	389.4	398.8	406.6	416.0	425.4
162.5°	363.7	363.0	366.1	370.9	375.9	381.7	390.6	398.1	404.7	412.2	420.3
165°	372.2	370.6	373.0	376.9	380.0	384.7	390.9	397.2	401.9	406.6	412.8
167.5°	377.8	377.0	378.4	380.6	382.8	385.8	390.9	395.3	397.5	401.1	405.5
170°	381.6	380.8	381.6	383.1	384.7	387.0	390.9	394.1	395.6	398.0	401.1
172.5°	384.1	382.7	383.4	385.0	385.9	387.0	390.3	392.8	393.1	394.2	396.7
175°	387.0	385.5	386.3	387.0	387.0	387.0	389.4	390.9	390.2	390.2	390.9
177.5°	388.4	387.2	387.2	387.8	387.2	387.2	388.4	389.1	387.8	387.8	388.4
180°	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8



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**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°	170.3	178.4	186.5	192.1	194.5	196.9	199.5	201.9
90°	157.9	166.6	175.4	182.1	184.5	187.0	190.2	192.6
92.5°	276.8	246.5	229.3	222.8	215.2	215.8	217.1	218.3
95°	691.2	580.0	491.5	430.8	377.7	356.7	352.9	342.8
97.5°	957.8	881.7	795.4	708.8	662.9	621.5	601.1	593.5
100°	1076.1	1045.0	971.8	895.1	843.3	789.0	762.2	751.8
102.5°	1112.4	1143.0	1111.4	1060.9	1005.3	967.3	938.0	930.7
105°	1078.5	1192.6	1233.9	1230.0	1207.4	1184.0	1170.8	1163.9
107.5°	982.7	1132.5	1227.7	1273.0	1287.9	1289.9	1286.8	1282.7
110°	912.1	1067.3	1184.1	1255.1	1292.7	1310.0	1317.9	1320.3





TEST NUMBER: P333318

CATALOG NUMBER: S125DIP-S1270D810U835-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	855.3	1002.6	1120.5	1203.2	1257.0	1285.0	1301.0	1309.0
115°	783.2	910.7	1024.0	1113.4	1176.5	1216.1	1240.1	1252.3
117.5°	733.5	843.8	942.0	1024.3	1087.6	1128.8	1152.9	1161.5
120°	706.0	805.7	897.6	970.4	1030.3	1069.9	1093.1	1101.4
122.5°	683.5	776.1	858.3	926.6	980.3	1016.8	1040.0	1047.7
125°	651.4	736.6	810.2	870.1	915.7	949.5	968.4	977.9
127.5°	618.3	697.9	766.5	822.8	864.5	894.8	913.1	918.5
130°	598.4	672.0	737.9	792.0	832.8	860.4	877.7	884.2
132.5°	577.8	647.0	707.3	759.4	799.9	827.2	843.0	849.8
135°	549.3	607.7	662.3	709.9	746.1	773.6	789.4	795.8
137.5°	525.6	573.3	619.0	659.6	691.8	716.6	731.0	737.5
140°	511.9	552.5	592.3	627.7	658.0	679.7	692.9	698.2
142.5°	500.2	534.6	568.8	599.6	625.5	644.1	656.6	661.3
145°	485.9	511.9	537.8	560.5	580.7	595.3	605.3	609.8
147.5°	473.5	493.8	513.0	529.5	545.0	556.2	561.9	563.9
150°	466.8	484.0	498.8	513.1	525.2	534.9	538.4	539.5
152.5°	460.5	475.9	489.5	500.4	510.4	517.9	521.1	522.0
155°	451.2	463.7	474.6	483.2	491.0	496.5	498.8	499.6
157.5°	441.8	452.1	460.5	467.3	473.4	477.9	480.1	479.9
160°	435.5	443.3	451.2	456.6	462.1	466.0	467.6	466.8
162.5°	428.6	435.8	442.4	447.2	451.5	454.7	455.1	454.9
165°	419.1	424.6	429.3	433.2	436.3	437.9	437.9	437.9
167.5°	410.0	413.6	417.2	420.0	421.6	423.0	422.4	422.2
170°	405.0	407.4	409.7	411.3	412.8	413.6	413.6	412.8
172.5°	399.4	401.7	403.5	404.4	404.7	406.1	404.9	404.1
175°	393.3	393.3	394.9	394.9	394.9	395.6	394.1	393.3
177.5°	389.1	389.7	389.7	389.7	389.1	389.7	387.8	387.8
180°	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8

(END OF REPORT)