

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: P333307-830

Luminaire Tested: **S125DIP-S1270D590U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333307-830
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-S1270D590U830-4F0-1E-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: 6871.9 lumens
Efficiency: N/A
Efficacy: 124.7 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-Direct

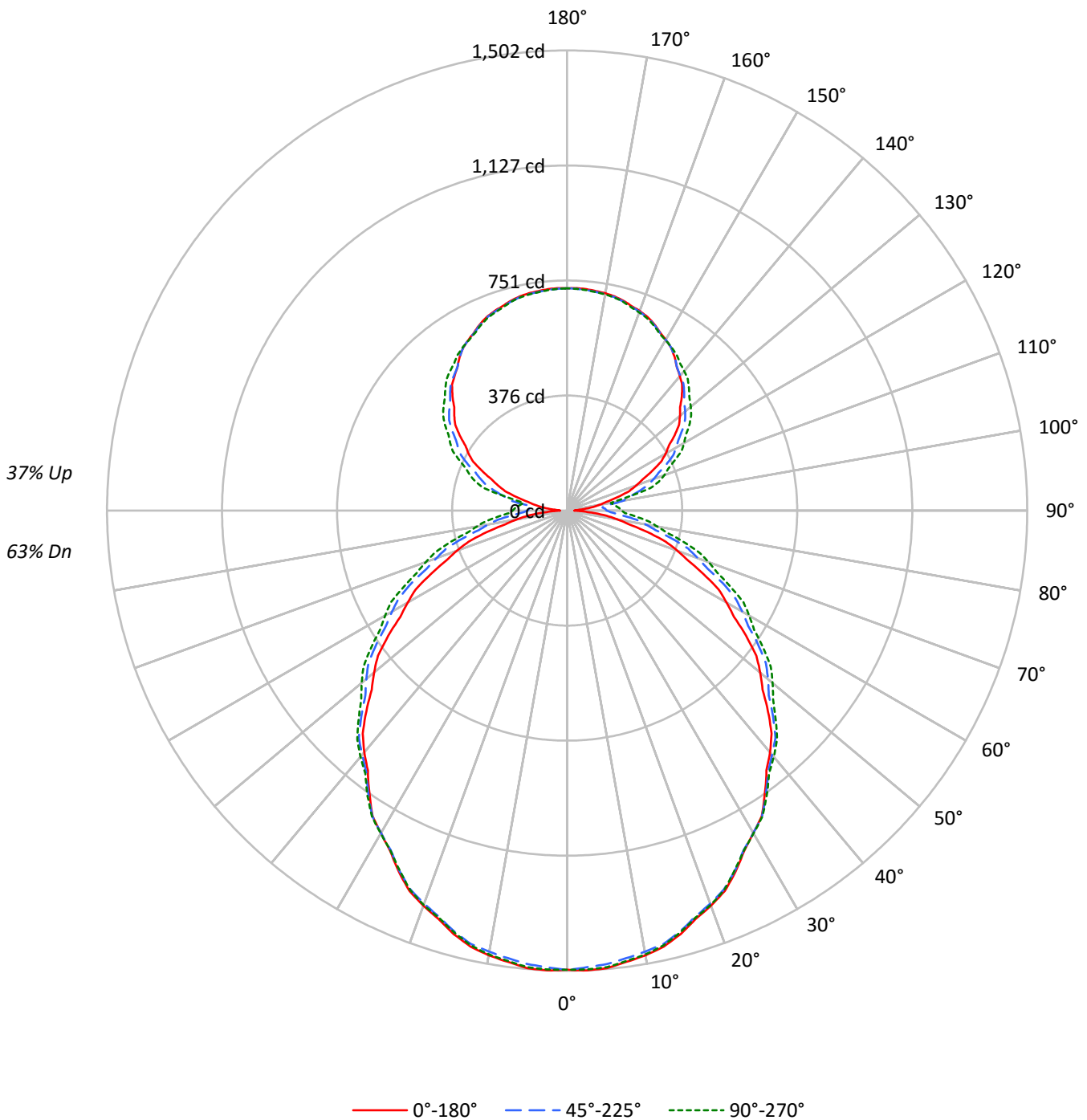
Input Watts (W): 55.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333307-830

CATALOG NUMBER: S125DIP-S1270D590U830-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P333307-830

CATALOG NUMBER: S125DIP-S1270D590U830-4F0-1E-UDD-D

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	110	110	110	110	104	104	104	104	91	91	91		79	79	79		68	68	68	63
1	100	95	91	87	93	89	85	82	78	75	73		68	66	64		59	57	56	52
2	91	82	76	70	85	77	72	67	68	63	60		59	56	53		51	49	46	42
3	82	72	64	58	77	68	61	55	60	54	50		52	48	44		45	42	39	35
4	75	64	55	49	70	60	52	47	53	47	42		46	42	38		40	37	33	30
5	69	57	48	42	64	54	46	40	47	41	36		42	37	33		36	32	29	26
6	64	51	42	36	59	48	40	35	43	36	32		38	32	28		33	29	25	23
7	59	46	38	32	55	43	36	30	39	32	28		34	29	25		30	26	23	20
8	55	42	34	28	51	40	32	27	35	29	25		31	26	22		27	23	20	18
9	51	38	30	25	48	36	29	24	32	26	22		29	24	20		25	21	18	16
10	48	35	28	23	45	33	26	22	30	24	20		27	22	18		24	19	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9680	9680	9680
5°	9700	9502	9532
10°	9630	9332	9318
15°	9517	9129	9046
20°	9362	8878	8774
25°	9178	8609	8439
30°	8955	8314	8134
35°	8748	8042	7856
40°	8535	7756	7574
45°	8297	7510	7326
50°	8068	7245	7106
55°	7794	6995	6847
60°	7494	6708	6584
65°	7180	6410	6286
70°	6825	6000	5981
75°	6261	5606	5607
80°	5525	5130	5198
85°	4842	4811	5069



TEST NUMBER: P333307-830

CATALOG NUMBER: S125DIP-S1270D590U830-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.7	2.1
10°-20°	402.4	5.9
20°-30°	598.4	8.7
30°-40°	708.8	10.3
40°-50°	732.8	10.7
50°-60°	675.1	9.8
60°-70°	545.7	7.9
70°-80°	365.5	5.3
80°-90°	191.0	2.8
90°-100°	132.7	1.9
100°-110°	240.9	3.5
110°-120°	347.2	5.1
120°-130°	408.0	5.9
130°-140°	419.8	6.1
140°-150°	384.4	5.6
150°-160°	308.9	4.5
160°-170°	199.7	2.9
170°-180°	68.9	1.0
0°-30°	1142.5	16.6
0°-40°	1851.2	26.9
0°-60°	3259.1	47.4
0°-90°	4361.3	63.5
90°-120°	720.8	10.5
90°-150°	1933.0	28.1
90°-180°	2511.0	36.5
0°-180°	6871.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1499	1499	1499	1499	1499	
5°	1499	1496	1486	1497	1496	142
15°	1431	1432	1422	1430	1425	403
25°	1300	1304	1296	1301	1295	598
35°	1126	1135	1132	1136	1136	704
45°	927	943	951	961	962	715
55°	713	736	760	775	782	637
65°	491	525	560	581	588	487
75°	270	309	356	384	392	287
85°	81	130	181	212	225	86
90°	24	76	129	164	178	17
95°	50	86	116	150	161	54
105°	171	198	241	269	280	182
115°	306	320	357	381	387	303
125°	428	432	460	480	487	382
135°	529	532	540	558	562	408
145°	612	611	611	619	622	382
155°	672	669	670	671	667	310
165°	709	706	707	709	706	200
175°	726	722	723	727	722	69
180°	726	726	726	726	726	



TEST NUMBER: P333307-830

CATALOG NUMBER: S125DIP-S1270D590U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1498.9	1498.9	1498.9	1498.9	1498.9	1498.9	1498.9	1498.9	1498.9	1498.9	1498.9
2.5°	1502.4	1501.9	1501.4	1500.9	1500.3	1499.2	1497.3	1495.5	1493.7	1491.9	1493.7
5°	1498.9	1498.3	1497.6	1496.9	1496.3	1494.9	1492.5	1490.3	1488.0	1485.7	1488.3
7.5°	1485.7	1485.4	1485.2	1484.9	1484.7	1483.4	1481.0	1478.7	1476.3	1473.9	1476.2
10°	1473.9	1473.9	1473.9	1473.9	1473.9	1472.6	1470.0	1467.4	1464.8	1462.2	1464.4
12.5°	1457.5	1457.7	1458.0	1458.3	1458.5	1457.6	1455.6	1453.4	1451.3	1449.3	1451.0
15°	1431.3	1431.6	1432.0	1432.3	1432.7	1431.6	1429.4	1427.1	1424.8	1422.5	1424.5
17.5°	1397.2	1397.9	1398.5	1399.2	1399.9	1399.0	1396.8	1394.5	1392.1	1389.9	1391.4
20°	1372.5	1373.2	1373.9	1374.5	1375.2	1374.3	1372.1	1369.8	1367.4	1365.2	1366.2
22.5°	1344.3	1345.5	1346.7	1347.8	1349.1	1348.3	1345.8	1343.2	1340.7	1338.1	1339.4
25°	1300.5	1301.6	1302.5	1303.4	1304.5	1304.0	1302.0	1300.0	1298.1	1296.1	1297.4
27.5°	1251.8	1253.2	1254.6	1256.0	1257.5	1257.1	1254.9	1252.6	1250.5	1248.2	1249.2
30°	1215.3	1217.3	1219.2	1221.2	1223.1	1223.1	1221.2	1219.2	1217.3	1215.3	1216.0
32.5°	1182.4	1184.1	1185.8	1187.5	1189.2	1189.3	1187.9	1186.5	1185.0	1183.6	1184.2
35°	1125.7	1127.9	1130.2	1132.6	1134.8	1135.5	1134.4	1133.5	1132.6	1131.5	1132.6
37.5°	1068.9	1071.0	1073.1	1075.3	1077.3	1078.2	1077.9	1077.5	1077.2	1076.9	1078.2
40°	1030.1	1032.7	1035.4	1038.0	1040.6	1041.7	1041.4	1041.0	1040.8	1040.5	1041.7
42.5°	987.8	991.2	994.6	998.0	1001.5	1003.4	1004.2	1004.9	1005.6	1006.4	1007.9
45°	927.3	930.9	934.4	938.0	941.6	944.2	945.9	947.5	949.1	950.7	953.1
47.5°	865.3	868.6	871.9	875.2	878.5	881.7	884.5	887.3	890.0	892.9	896.3
50°	822.9	826.5	830.1	833.7	837.4	840.9	844.5	848.1	851.7	855.3	858.8
52.5°	778.3	782.7	787.0	791.4	795.8	800.1	804.6	808.9	813.2	817.7	821.5
55°	712.8	717.9	723.2	728.4	733.6	738.9	744.0	749.3	754.5	759.8	763.4
57.5°	645.7	652.0	658.3	664.5	670.8	676.9	683.0	688.9	694.9	701.0	705.1
60°	601.1	607.6	614.1	620.7	627.2	633.7	640.3	646.8	653.3	659.8	664.7
62.5°	557.5	564.1	570.6	577.1	583.6	590.5	597.5	604.5	611.6	618.7	624.1
65°	490.8	498.3	505.9	513.4	520.8	528.6	536.4	544.2	552.0	559.9	564.8
67.5°	427.9	435.2	442.4	449.7	456.9	464.6	472.5	480.5	488.4	496.4	502.4
70°	382.1	389.6	397.1	404.6	412.1	420.1	428.6	437.2	445.6	454.1	460.3
72.5°	337.4	345.2	353.0	360.7	368.5	377.0	386.3	395.6	404.8	414.2	420.8
75°	270.4	278.9	287.4	295.9	304.3	313.9	324.2	334.7	345.2	355.6	362.1
77.5°	206.0	215.8	225.6	235.4	245.2	255.1	265.2	275.2	285.3	295.4	302.6
80°	166.1	175.9	185.7	195.5	205.3	215.7	226.8	237.9	249.0	260.1	267.3
82.5°	129.6	140.0	150.2	160.6	170.9	181.7	193.1	204.4	215.8	227.2	234.1
85°	80.9	91.6	102.4	113.2	123.9	135.1	146.5	157.9	169.3	180.8	187.9
87.5°	46.0	56.6	67.2	77.9	88.5	99.4	110.7	122.1	133.3	144.6	152.2
90°	24.0	35.4	46.8	58.2	69.7	81.3	93.3	105.2	117.2	129.1	137.2
92.5°	29.4	38.5	47.4	56.5	65.4	76.0	88.1	100.2	112.3	124.4	132.2
95°	49.8	57.9	66.0	74.2	82.3	89.6	96.2	102.7	109.3	115.8	123.7
97.5°	81.3	89.6	97.9	106.2	114.5	119.5	121.2	122.9	124.7	126.4	129.9
100°	105.9	113.2	120.4	127.6	134.9	143.9	154.9	165.8	176.7	187.7	176.6
102.5°	131.0	137.8	144.6	151.4	158.2	166.8	177.3	187.8	198.2	208.8	212.0
105°	171.4	177.0	182.8	188.4	194.2	201.9	211.7	221.5	231.3	241.1	247.6
107.5°	213.2	217.6	222.2	226.6	231.0	238.0	247.7	257.3	266.9	276.6	283.1
110°	240.4	244.4	248.3	252.2	256.1	262.8	272.1	281.5	291.0	300.3	306.1



TEST NUMBER: P333307-830

CATALOG NUMBER: S125DIP-S1270D590U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	267.1	270.5	274.0	277.4	280.8	287.0	296.1	305.1	314.1	323.1	328.7
115°	305.7	308.6	311.4	314.3	317.2	322.9	331.6	340.2	348.7	357.4	362.8
117.5°	345.6	347.0	348.6	350.1	351.5	356.5	365.0	373.4	381.9	390.4	395.4
120°	371.5	372.3	373.2	374.0	374.8	379.2	387.1	394.9	402.8	410.7	416.0
122.5°	393.0	394.0	394.8	395.8	396.7	400.9	408.2	415.7	423.1	430.6	435.5
125°	428.0	428.6	429.0	429.5	430.1	433.6	440.1	446.7	453.2	459.7	464.5
127.5°	460.2	460.5	460.7	461.0	461.3	464.1	469.4	474.7	479.9	485.2	489.7
130°	480.9	481.2	481.4	481.6	481.9	484.5	489.1	493.8	498.5	503.2	507.4
132.5°	500.3	501.0	501.6	502.2	502.8	504.8	508.0	511.3	514.6	517.8	522.4
135°	529.4	529.8	530.2	530.6	530.9	532.2	534.2	536.3	538.3	540.4	544.4
137.5°	556.1	556.5	556.9	557.2	557.5	558.2	559.0	560.0	560.8	561.8	565.6
140°	572.6	572.8	573.1	573.3	573.5	573.7	573.9	574.2	574.4	574.6	578.4
142.5°	588.5	588.3	588.2	588.1	588.1	588.1	588.3	588.5	588.8	589.0	592.1
145°	611.8	611.7	611.6	611.5	611.4	611.4	611.4	611.4	611.4	611.4	613.2
147.5°	630.7	630.7	630.7	630.7	630.6	630.7	630.7	630.9	631.0	631.2	631.9
150°	643.7	643.5	643.2	643.0	642.7	642.7	643.0	643.2	643.5	643.7	643.9
152.5°	656.2	655.6	655.2	654.6	654.0	653.9	654.1	654.4	654.6	654.9	655.2
155°	672.2	671.5	670.8	670.1	669.3	669.1	669.3	669.6	669.8	670.1	670.4
157.5°	684.6	684.1	683.7	683.2	682.9	682.7	682.7	682.7	682.7	682.8	683.2
160°	693.1	692.5	691.7	691.0	690.3	690.0	690.1	690.2	690.3	690.5	691.0
162.5°	700.0	699.4	698.6	697.9	697.2	696.9	697.0	697.1	697.2	697.4	698.0
165°	709.3	708.6	707.8	707.2	706.4	706.2	706.2	706.3	706.5	706.6	707.3
167.5°	716.1	715.5	714.7	714.0	713.2	712.9	713.0	713.1	713.2	713.4	714.3
170°	720.1	719.3	718.4	717.6	716.7	716.3	716.4	716.6	716.7	716.8	717.7
172.5°	722.6	721.8	721.0	720.1	719.3	719.0	719.2	719.4	719.6	719.8	720.7
175°	725.5	724.7	724.0	723.3	722.6	722.3	722.4	722.6	722.6	722.7	723.7
177.5°	726.7	726.1	725.6	725.0	724.4	724.2	724.2	724.3	724.4	724.5	725.3
180°	725.5	725.5	725.5	725.5	725.5	725.5	725.5	725.5	725.5	725.5	725.5



TEST NUMBER: P333307-830

CATALOG NUMBER: S125DIP-S1270D590U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1498.9	1498.9	1498.9	1498.9	1498.9	1498.9	1498.9	1498.9
2.5°	1495.5	1497.3	1499.2	1500.0	1499.7	1499.5	1499.2	1498.9
5°	1490.9	1493.6	1496.2	1497.3	1496.9	1496.7	1496.3	1496.0
7.5°	1478.5	1480.8	1483.1	1484.0	1483.8	1483.4	1483.1	1482.7
10°	1466.8	1469.0	1471.3	1472.3	1472.0	1471.7	1471.3	1471.0
12.5°	1452.7	1454.5	1456.3	1456.8	1455.9	1455.1	1454.2	1453.4
15°	1426.4	1428.4	1430.3	1430.7	1429.4	1428.0	1426.7	1425.4
17.5°	1392.9	1394.4	1395.9	1396.3	1395.4	1394.7	1393.9	1393.1
20°	1367.2	1368.1	1369.1	1369.6	1369.6	1369.6	1369.6	1369.6
22.5°	1340.7	1341.9	1343.1	1343.3	1342.6	1341.8	1341.0	1340.2
25°	1298.7	1300.0	1301.4	1301.2	1299.6	1297.9	1296.3	1294.7
27.5°	1250.1	1250.9	1251.9	1252.1	1251.4	1250.8	1250.3	1249.7
30°	1216.6	1217.3	1218.0	1218.0	1217.8	1217.4	1217.1	1216.7
32.5°	1184.9	1185.5	1186.2	1186.4	1186.0	1185.7	1185.3	1185.1
35°	1133.5	1134.4	1135.5	1136.0	1136.0	1136.0	1136.0	1136.0
37.5°	1079.5	1080.8	1082.1	1082.7	1082.5	1082.4	1082.3	1082.1
40°	1043.0	1044.3	1045.7	1046.6	1047.3	1047.9	1048.6	1049.2
42.5°	1009.5	1011.1	1012.6	1013.4	1013.6	1013.7	1013.9	1014.0
45°	955.4	957.6	959.9	961.2	961.6	961.9	962.2	962.5
47.5°	899.6	902.9	906.3	908.2	909.0	909.6	910.4	911.2
50°	862.4	866.0	869.7	871.9	872.9	873.9	874.9	875.8
52.5°	825.4	829.2	833.0	835.4	836.0	836.8	837.5	838.2
55°	766.9	770.5	774.1	776.6	777.9	779.2	780.5	781.8
57.5°	709.2	713.3	717.5	720.0	721.0	721.9	722.9	723.9
60°	669.6	674.5	679.4	682.3	683.3	684.3	685.3	686.3
62.5°	629.5	634.9	640.4	643.7	644.9	646.2	647.4	648.7
65°	569.7	574.6	579.5	582.6	583.9	585.2	586.5	587.8
67.5°	508.3	514.3	520.2	524.0	525.7	527.4	529.1	530.8
70°	466.5	472.7	478.9	483.0	484.9	486.9	488.9	490.8
72.5°	427.5	434.3	441.0	445.1	446.6	448.0	449.4	450.8
75°	368.7	375.2	381.7	385.9	387.5	389.1	390.8	392.4
77.5°	309.7	316.9	324.1	328.4	329.7	330.9	332.2	333.6
80°	274.5	281.6	288.9	293.1	294.4	295.7	297.0	298.3
82.5°	241.0	248.0	254.9	259.5	261.8	264.2	266.6	268.9
85°	195.1	202.3	209.5	214.4	217.0	219.6	222.3	224.8
87.5°	159.9	167.5	175.1	180.1	182.5	184.8	187.2	189.5
90°	145.3	153.4	161.6	166.9	169.6	172.2	174.8	177.5
92.5°	140.1	148.0	155.8	161.0	163.4	165.9	168.3	170.8
95°	131.5	139.2	147.0	152.0	154.3	156.7	158.9	161.2
97.5°	133.4	136.9	140.3	143.2	145.4	147.6	149.9	152.0
100°	165.7	154.8	143.8	139.1	140.5	142.0	143.5	145.1
102.5°	215.2	218.4	221.6	220.2	214.0	207.8	201.7	195.5
105°	254.1	260.7	267.2	271.5	273.7	275.9	278.1	280.2
107.5°	289.5	296.1	302.6	306.6	308.3	310.0	311.6	313.3
110°	312.0	317.8	323.7	327.8	330.2	332.6	335.1	337.4



TEST NUMBER: P333307-830

CATALOG NUMBER: S125DIP-S1270D590U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	334.1	339.6	345.1	348.9	351.0	353.2	355.2	357.4
115°	368.2	373.6	379.0	382.3	383.5	384.7	386.1	387.3
117.5°	400.3	405.2	410.2	413.6	415.5	417.4	419.3	421.2
120°	421.3	426.6	432.0	435.3	436.7	438.0	439.3	440.7
122.5°	440.6	445.6	450.7	453.8	455.2	456.4	457.7	458.9
125°	469.2	473.9	478.7	481.7	483.0	484.3	485.5	486.8
127.5°	494.4	498.9	503.5	506.2	507.3	508.3	509.3	510.3
130°	511.6	515.9	520.0	522.6	523.7	524.7	525.8	526.8
132.5°	526.9	531.3	535.8	538.5	539.2	540.1	540.8	541.6
135°	548.4	552.4	556.4	558.8	559.8	560.7	561.6	562.5
137.5°	569.6	573.4	577.4	579.7	580.3	581.0	581.7	582.4
140°	582.2	586.1	589.9	592.1	592.7	593.3	593.9	594.5
142.5°	595.2	598.3	601.4	603.3	603.9	604.5	605.1	605.7
145°	614.9	616.7	618.4	619.6	620.2	620.8	621.4	622.0
147.5°	632.5	633.2	633.9	634.0	633.8	633.6	633.3	633.0
150°	644.1	644.4	644.6	644.4	643.9	643.2	642.5	642.0
152.5°	655.3	655.6	655.8	655.5	654.8	653.9	653.2	652.3
155°	670.8	671.1	671.5	671.2	670.2	669.3	668.4	667.3
157.5°	683.5	683.9	684.3	684.0	683.1	682.0	681.1	680.1
160°	691.4	691.9	692.4	692.1	691.2	690.2	689.3	688.3
162.5°	698.7	699.4	700.0	699.8	698.8	697.8	696.7	695.6
165°	708.0	708.8	709.5	709.4	708.4	707.5	706.5	705.5
167.5°	715.1	716.0	716.8	716.7	715.7	714.5	713.5	712.4
170°	718.8	719.7	720.7	720.6	719.5	718.4	717.4	716.3
172.5°	721.5	722.5	723.3	723.2	722.1	721.0	719.9	718.9
175°	724.6	725.6	726.6	726.5	725.5	724.3	723.3	722.2
177.5°	725.9	726.6	727.3	727.2	726.4	725.7	724.9	724.2
180°	725.5	725.5	725.5	725.5	725.5	725.5	725.5	725.5

(END OF REPORT)