

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: P333316-830

Luminaire Tested: **S125DIP-S1270D810U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333316-830  
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-S1270D810U830-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7698.3 lumens  
Efficiency: N/A  
Efficacy: 126.8 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

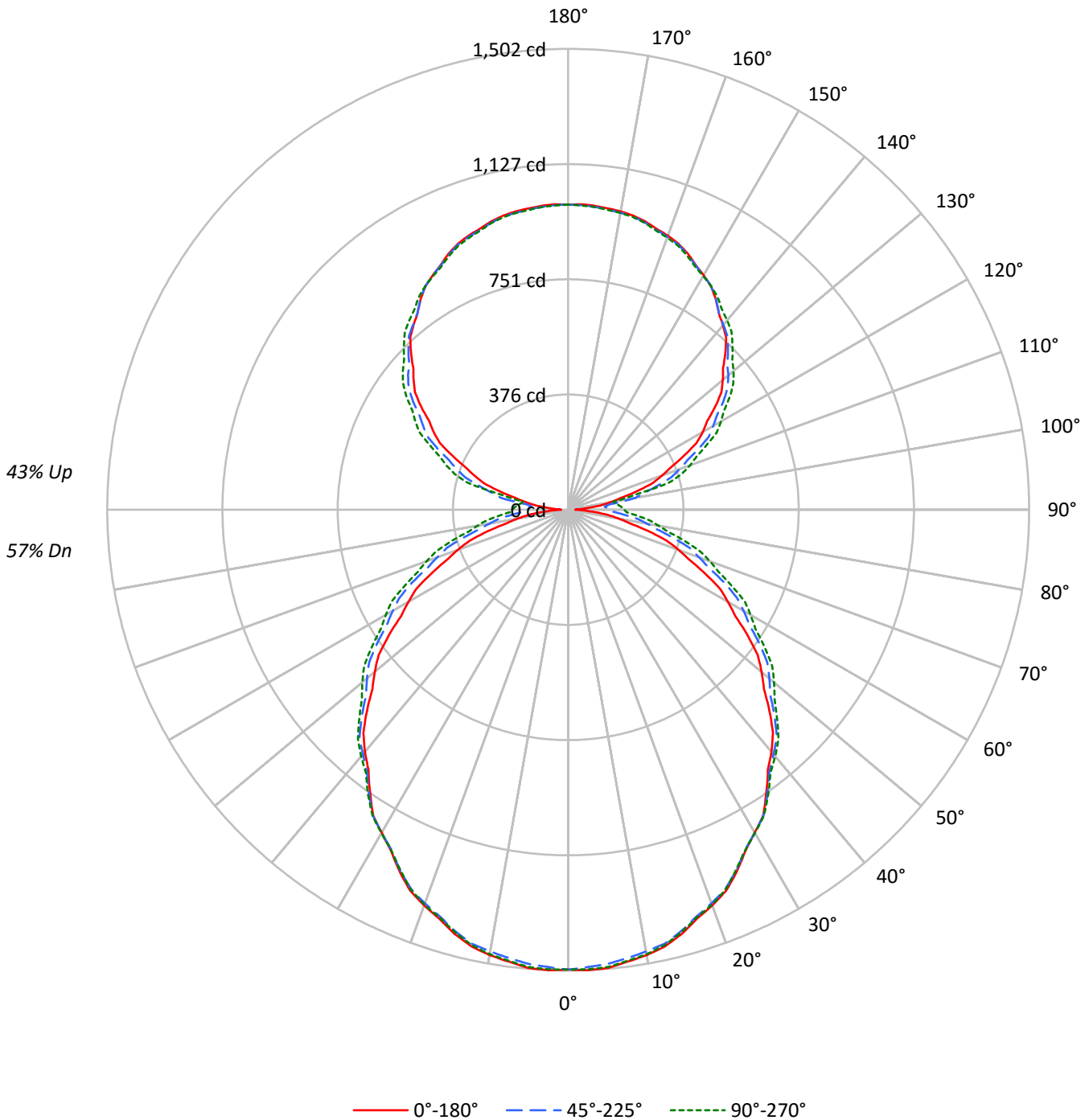
Input Watts (W): 60.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





TEST NUMBER: P333316-830

CATALOG NUMBER: S125DIP-S1270D810U830-4F0-1E-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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	57
1	98	94	89	86	91	87	84	80	75	72	70	64	62	60	54	52	51	46
2	89	81	75	69	83	76	70	65	65	61	57	56	52	49	47	44	42	38
3	81	71	63	57	75	66	60	54	57	52	48	49	45	42	41	38	36	32
4	74	63	55	48	69	59	51	46	51	45	40	43	39	35	37	33	30	27
5	68	56	48	41	63	52	45	39	45	39	35	39	34	31	33	29	26	23
6	63	50	42	36	58	47	39	34	41	35	30	35	30	27	30	26	23	20
7	58	45	37	31	54	42	35	30	37	31	27	32	27	24	27	23	21	18
8	54	41	33	28	50	39	31	26	34	28	24	29	24	21	25	21	18	16
9	50	38	30	25	47	35	28	23	31	25	21	27	22	19	23	19	17	14
10	47	34	27	22	44	32	26	21	29	23	19	25	20	17	21	18	15	13

**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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.7	1.8
10°-20°	402.4	5.2
20°-30°	598.4	7.8
30°-40°	708.8	9.2
40°-50°	732.8	9.5
50°-60°	675.1	8.8
60°-70°	545.7	7.1
70°-80°	365.5	4.7
80°-90°	191.6	2.5
90°-100°	142.5	1.9
100°-110°	301.1	3.9
110°-120°	456.5	5.9
120°-130°	548.2	7.1
130°-140°	570.6	7.4
140°-150°	526.0	6.8
150°-160°	423.4	5.5
160°-170°	273.8	3.6
170°-180°	94.4	1.2
0°-30°	1142.5	14.8
0°-40°	1851.2	24.0
0°-60°	3259.1	42.3
0°-90°	4361.9	56.7
90°-120°	900.0	11.7
90°-150°	2544.8	33.1
90°-180°	3336.0	43.3
0°-180°	7698.3	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	77	132	168	182	17
95°	61	96	119	154	165	69
105°	230	257	300	329	339	244
115°	416	431	469	491	496	412
125°	584	590	618	637	643	522
135°	724	728	736	753	757	558
145°	838	838	838	846	848	524
155°	921	917	918	920	915	424
165°	972	968	969	972	967	275
175°	994	990	991	996	990	95
180°	994	994	994	994	994	



TEST NUMBER: P333316-830

CATALOG NUMBER: S125DIP-S1270D810U830-4F0-1E-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	56.7	67.4	78.1	88.9	99.9	111.2	122.5	133.8	145.2	152.9
90°	24.2	36.0	47.8	59.6	71.3	83.3	95.6	107.8	120.1	132.3	140.6
92.5°	32.5	41.3	50.0	58.7	67.5	78.0	90.5	102.8	115.2	127.6	135.6
95°	61.1	69.1	77.1	85.1	93.1	99.5	104.4	109.3	114.2	119.0	127.1
97.5°	105.1	113.6	122.2	130.6	139.1	142.6	141.0	139.4	137.8	136.2	138.5
100°	139.3	146.6	153.9	161.3	168.6	177.9	189.0	200.1	211.2	222.3	204.7
102.5°	174.1	181.1	187.9	194.9	201.9	210.7	221.2	231.9	242.4	253.0	255.0
105°	230.0	235.8	241.7	247.6	253.4	261.3	271.1	280.9	290.7	300.5	307.0
107.5°	288.0	292.5	296.9	301.3	305.8	312.9	322.6	332.3	342.0	351.9	358.3
110°	325.7	329.7	333.6	337.5	341.5	348.2	357.6	367.1	376.5	386.1	391.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	362.3	365.9	369.4	372.9	376.5	382.8	391.8	400.9	410.0	419.1	424.4
115°	415.7	418.8	421.9	425.0	428.1	434.0	442.6	451.3	460.0	468.6	473.8
117.5°	471.0	472.5	473.9	475.4	476.8	481.9	490.6	499.3	507.9	516.5	521.2
120°	506.3	507.2	508.0	508.8	509.6	514.1	522.1	530.1	538.1	546.0	551.3
122.5°	536.5	537.5	538.6	539.7	540.7	545.1	552.5	560.0	567.5	575.0	579.9
125°	584.5	585.3	586.2	587.0	587.8	591.4	598.0	604.5	611.1	617.6	622.2
127.5°	629.1	629.7	630.2	630.7	631.1	634.0	639.3	644.5	649.8	655.1	659.5
130°	657.5	658.0	658.5	658.9	659.5	662.0	666.8	671.6	676.3	681.0	685.1
132.5°	684.7	685.5	686.4	687.3	688.2	690.2	693.3	696.5	699.6	702.9	707.3
135°	724.5	725.2	725.9	726.5	727.2	728.5	730.5	732.4	734.3	736.3	740.3
137.5°	761.3	761.9	762.4	763.1	763.6	764.3	765.2	766.0	766.8	767.6	771.6
140°	784.3	784.6	784.9	785.2	785.6	785.8	786.0	786.2	786.4	786.5	790.4
142.5°	806.1	806.1	806.0	805.9	805.9	806.0	806.3	806.5	806.8	807.1	810.3
145°	838.1	838.1	838.1	838.1	838.1	838.1	838.1	838.1	838.1	838.1	839.9
147.5°	864.6	864.6	864.5	864.4	864.4	864.4	864.6	864.8	865.1	865.3	865.9
150°	882.3	882.0	881.7	881.4	881.0	881.0	881.4	881.7	882.0	882.3	882.7
152.5°	899.5	898.7	898.0	897.3	896.5	896.4	896.6	897.0	897.3	897.7	898.0
155°	921.4	920.4	919.5	918.4	917.5	917.1	917.5	917.8	918.1	918.4	918.9
157.5°	938.3	937.7	937.2	936.6	935.9	935.7	935.8	935.8	935.8	935.9	936.3
160°	950.2	949.1	948.2	947.2	946.2	945.8	945.9	946.1	946.3	946.4	947.1
162.5°	959.6	958.6	957.6	956.6	955.6	955.3	955.4	955.5	955.7	955.9	956.8
165°	972.2	971.3	970.3	969.3	968.3	967.9	968.1	968.3	968.4	968.6	969.6
167.5°	981.7	980.7	979.7	978.6	977.6	977.2	977.3	977.5	977.7	977.9	979.0
170°	987.0	985.8	984.7	983.5	982.4	981.9	982.0	982.2	982.4	982.6	983.9
172.5°	990.5	989.4	988.3	987.1	985.9	985.5	985.8	986.1	986.4	986.7	987.9
175°	994.4	993.3	992.4	991.5	990.4	990.0	990.1	990.3	990.5	990.7	992.0
177.5°	996.2	995.3	994.6	993.8	993.0	992.7	992.8	992.9	993.1	993.2	994.1
180°	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4



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**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°	160.5	168.2	175.9	181.0	183.3	185.7	188.0	190.5
90°	148.9	157.3	165.6	171.2	174.0	176.7	179.5	182.3
92.5°	143.7	151.8	159.9	165.1	167.7	170.2	172.7	175.2
95°	135.1	143.1	151.1	156.3	158.5	160.8	163.1	165.4
97.5°	140.6	142.9	145.2	147.4	149.6	151.8	154.0	156.3
100°	187.2	169.7	152.1	144.0	145.3	146.6	147.9	149.2
102.5°	256.9	258.9	260.9	257.3	248.1	238.9	229.8	220.6
105°	313.6	320.1	326.6	330.9	333.1	335.2	337.3	339.4
107.5°	364.8	371.3	377.8	381.8	383.3	384.8	386.4	388.0
110°	397.5	403.1	408.9	412.9	415.4	417.8	420.3	422.7





TEST NUMBER: P333316-830

CATALOG NUMBER: S125DIP-S1270D810U830-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	429.7	435.0	440.4	444.0	446.1	448.2	450.3	452.2
115°	479.1	484.3	489.6	492.6	493.6	494.6	495.5	496.5
117.5°	525.9	530.7	535.4	538.6	540.4	542.2	543.9	545.8
120°	556.5	561.8	566.9	570.1	571.3	572.4	573.5	574.7
122.5°	584.8	589.8	594.8	597.8	598.8	599.8	600.9	601.8
125°	626.7	631.3	635.8	638.8	639.9	641.0	642.2	643.3
127.5°	664.0	668.5	673.0	675.5	676.2	676.9	677.6	678.3
130°	689.2	693.2	697.3	699.7	700.6	701.4	702.2	703.0
132.5°	711.8	716.2	720.8	723.2	723.8	724.3	724.9	725.5
135°	744.1	748.1	752.0	754.3	755.0	755.6	756.2	756.9
137.5°	775.4	779.4	783.3	785.5	785.9	786.4	786.8	787.3
140°	794.3	798.2	802.2	804.3	804.6	804.9	805.2	805.6
142.5°	813.4	816.5	819.6	821.4	821.7	822.1	822.4	822.7
145°	841.7	843.5	845.3	846.3	846.7	847.0	847.3	847.6
147.5°	866.7	867.4	868.1	868.2	867.6	867.0	866.4	865.8
150°	883.0	883.4	883.6	883.4	882.3	881.4	880.3	879.4
152.5°	898.3	898.6	899.0	898.5	897.5	896.4	895.2	894.1
155°	919.5	919.9	920.4	920.0	918.7	917.4	916.1	914.7
157.5°	936.9	937.5	937.9	937.5	936.2	934.9	933.6	932.3
160°	947.7	948.4	949.0	948.8	947.4	946.1	944.8	943.5
162.5°	957.7	958.7	959.5	959.3	957.8	956.4	955.0	953.6
165°	970.5	971.5	972.5	972.3	971.0	969.7	968.4	967.0
167.5°	980.2	981.4	982.6	982.4	980.9	979.5	978.0	976.6
170°	985.1	986.5	987.8	987.7	986.3	984.8	983.3	981.8
172.5°	989.0	990.2	991.5	991.3	989.8	988.4	986.8	985.3
175°	993.3	994.6	995.9	995.8	994.4	992.9	991.5	990.0
177.5°	995.0	995.9	996.8	996.8	995.7	994.7	993.6	992.6
180°	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4

(END OF REPORT)