

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: P333468-830

Luminaire Tested: **S125DIW-S1270D770U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333468-830  
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: S125DIW-S1270D770U830-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 770 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7537.8 lumens  
Efficiency: N/A  
Efficacy: 126.0 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

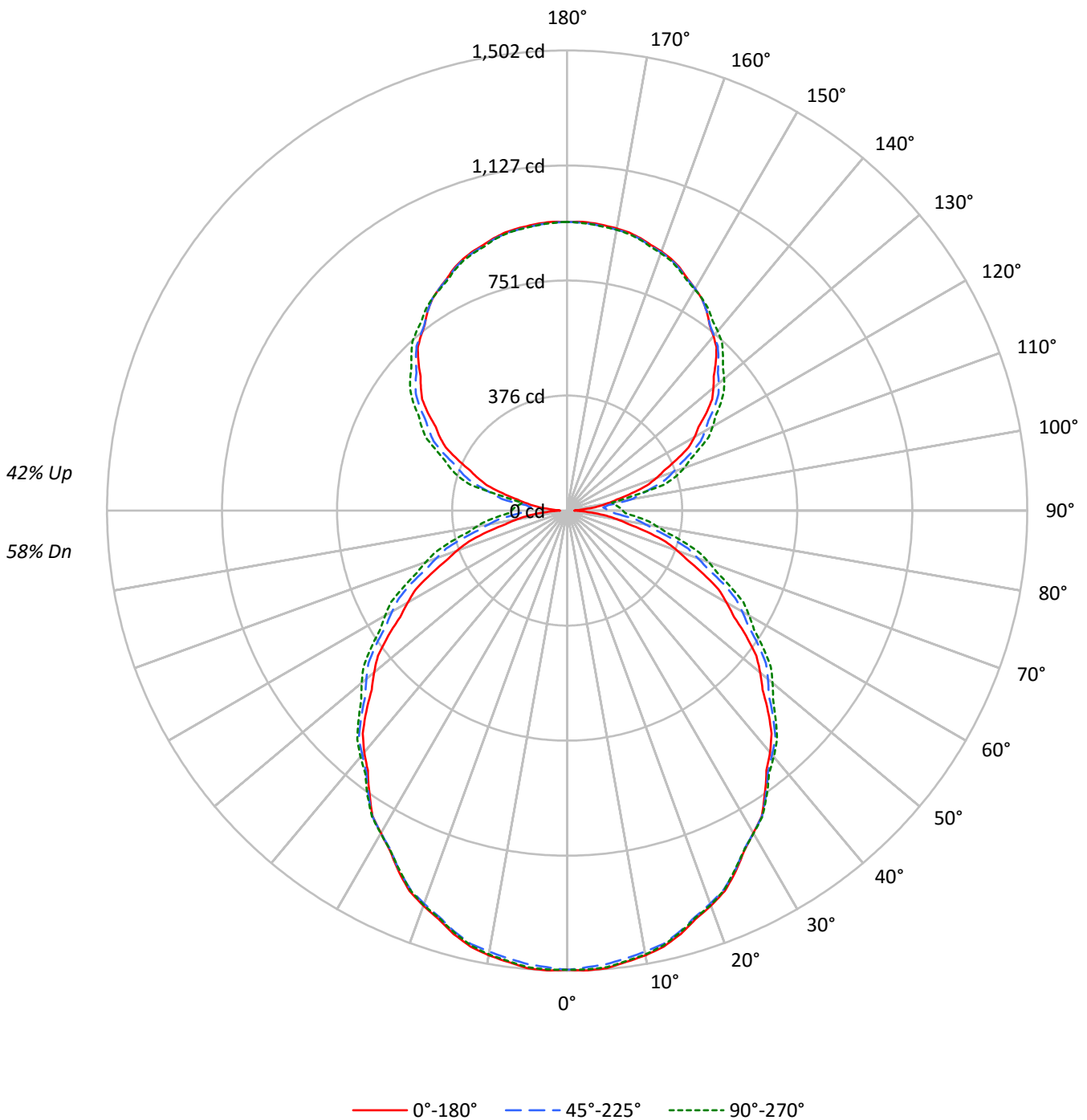
Input Watts (W): 59.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333468-830

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### Luminous Intensity Polar Plot





TEST NUMBER: P333468-830

CATALOG NUMBER: S125DIW-S1270D770U830-4F0-1E-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	102	102	102	102	88	88	88	75	75	75	63	63	63	58
1	99	94	90	86	92	88	84	80	76	73	70	65	63	61	55	53	52	47
2	90	82	75	69	83	76	70	65	66	61	58	56	53	50	48	45	43	39
3	81	71	64	57	75	67	60	54	58	52	48	50	45	42	42	39	36	32
4	74	63	55	48	69	59	52	46	51	45	41	44	39	36	37	34	31	28
5	68	56	48	41	63	53	45	39	46	40	35	39	35	31	34	30	27	24
6	63	50	42	36	58	47	40	34	41	35	30	36	31	27	30	27	24	21
7	58	45	37	31	54	43	35	30	37	31	27	32	27	24	28	24	21	18
8	54	41	33	28	50	39	31	26	34	28	24	30	25	21	25	22	19	16
9	50	38	30	25	47	35	28	24	31	25	21	27	22	19	23	20	17	15
10	47	35	27	22	44	33	26	21	29	23	19	25	21	17	22	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



TEST NUMBER: P333468-830

CATALOG NUMBER: S125DIW-S1270D770U830-4F0-1E-UDD-D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.7	1.9
10°-20°	402.4	5.3
20°-30°	598.4	7.9
30°-40°	708.8	9.4
40°-50°	732.8	9.7
50°-60°	675.1	9.0
60°-70°	545.7	7.2
70°-80°	365.5	4.8
80°-90°	191.5	2.5
90°-100°	140.6	1.9
100°-110°	289.4	3.8
110°-120°	435.2	5.8
120°-130°	521.0	6.9
130°-140°	541.3	7.2
140°-150°	498.5	6.6
150°-160°	401.1	5.3
160°-170°	259.4	3.4
170°-180°	89.5	1.2
0°-30°	1142.5	15.2
0°-40°	1851.2	24.6
0°-60°	3259.1	43.2
0°-90°	4361.8	57.9
90°-120°	865.2	11.5
90°-150°	2426.0	32.2
90°-180°	3176.0	42.1
0°-180°	7537.8	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	181	17
95°	59	94	118	153	165	66
105°	219	246	289	317	328	232
115°	394	410	447	470	475	391
125°	554	559	587	607	613	494
135°	687	690	698	715	719	529
145°	794	794	794	802	804	496
155°	873	869	870	872	867	402
165°	921	917	918	921	916	260
175°	942	938	939	944	938	90
180°	942	942	942	942	942	



TEST NUMBER: P333468-830

CATALOG NUMBER: S125DIW-S1270D770U830-4F0-1E-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	67.4	78.0	88.8	99.8	111.1	122.4	133.7	145.1	152.8
90°	24.2	35.9	47.6	59.3	71.0	82.9	95.1	107.3	119.5	131.7	140.0
92.5°	32.0	40.7	49.5	58.3	67.1	77.7	90.0	102.4	114.6	127.0	135.0
95°	58.9	66.9	74.9	82.9	91.0	97.6	102.8	108.0	113.2	118.5	126.4
97.5°	100.5	109.0	117.4	125.9	134.4	138.1	137.1	136.2	135.3	134.3	136.8
100°	132.8	140.2	147.4	154.8	162.1	171.3	182.4	193.4	204.5	215.6	199.3
102.5°	165.7	172.7	179.6	186.4	193.4	202.2	212.7	223.3	233.8	244.4	246.6
105°	218.6	224.4	230.3	236.1	242.0	249.8	259.6	269.4	279.2	289.0	295.5
107.5°	273.5	278.0	282.4	286.8	291.2	298.3	308.0	317.7	327.5	337.2	343.7
110°	309.2	313.1	317.1	320.9	324.9	331.6	341.0	350.4	360.0	369.4	375.1



TEST NUMBER: P333468-830

CATALOG NUMBER: S125DIW-S1270D770U830-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	343.8	347.3	350.8	354.4	357.9	364.2	373.2	382.3	391.3	400.4	405.8
115°	394.4	397.4	400.5	403.5	406.6	412.5	421.0	429.7	438.4	447.0	452.2
117.5°	446.7	448.1	449.6	451.0	452.5	457.6	466.2	474.9	483.4	492.1	496.8
120°	480.1	481.0	481.8	482.7	483.4	487.9	495.9	503.8	511.8	519.7	525.0
122.5°	508.6	509.6	510.7	511.7	512.7	517.1	524.5	532.0	539.4	546.9	551.9
125°	554.1	554.9	555.6	556.4	557.1	560.8	567.3	573.8	580.4	586.9	591.5
127.5°	596.3	596.8	597.3	597.7	598.1	601.1	606.2	611.5	616.8	622.1	626.6
130°	623.2	623.6	624.1	624.5	625.0	627.5	632.3	637.1	641.8	646.5	650.5
132.5°	648.8	649.7	650.4	651.3	652.1	654.2	657.3	660.5	663.7	666.9	671.4
135°	686.6	687.3	687.9	688.4	689.1	690.4	692.4	694.3	696.3	698.2	702.2
137.5°	721.4	722.0	722.6	723.0	723.6	724.3	725.1	725.9	726.8	727.6	731.5
140°	743.2	743.5	743.8	744.1	744.4	744.6	744.8	745.0	745.2	745.4	749.2
142.5°	763.8	763.7	763.6	763.6	763.6	763.6	763.9	764.2	764.5	764.8	767.9
145°	794.2	794.1	794.1	794.1	794.1	794.1	794.1	794.1	794.1	794.1	795.9
147.5°	819.3	819.2	819.1	819.1	819.0	819.1	819.3	819.4	819.5	819.7	820.5
150°	835.9	835.7	835.4	835.0	834.7	834.7	835.0	835.4	835.7	835.9	836.3
152.5°	852.2	851.5	850.8	850.2	849.4	849.2	849.6	849.9	850.2	850.5	850.8
155°	873.0	872.0	871.1	870.2	869.3	868.9	869.3	869.6	869.9	870.2	870.6
157.5°	889.0	888.5	888.0	887.4	886.8	886.6	886.6	886.6	886.6	886.6	887.2
160°	900.2	899.3	898.3	897.4	896.5	896.1	896.3	896.5	896.5	896.7	897.4
162.5°	909.2	908.2	907.3	906.3	905.4	905.0	905.2	905.4	905.5	905.7	906.5
165°	921.1	920.2	919.4	918.4	917.5	917.1	917.2	917.4	917.6	917.7	918.6
167.5°	930.1	929.2	928.2	927.3	926.2	925.9	926.0	926.1	926.3	926.5	927.6
170°	935.2	934.1	932.9	931.9	930.8	930.3	930.5	930.7	930.8	930.9	932.2
172.5°	938.5	937.5	936.3	935.2	934.2	933.8	934.1	934.3	934.6	934.9	935.9
175°	942.2	941.2	940.3	939.3	938.4	938.0	938.2	938.3	938.5	938.7	939.9
177.5°	943.8	943.0	942.4	941.6	940.8	940.5	940.7	940.8	940.8	941.0	941.9
180°	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2



TEST NUMBER: P333468-830

CATALOG NUMBER: S125DIW-S1270D770U830-4F0-1E-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°	160.4	168.1	175.8	180.8	183.1	185.5	187.9	190.3
90°	148.3	156.6	164.9	170.3	173.1	175.9	178.6	181.3
92.5°	143.0	151.1	159.1	164.4	166.8	169.4	171.8	174.4
95°	134.4	142.3	150.3	155.4	157.7	159.9	162.3	164.6
97.5°	139.2	141.8	144.2	146.6	148.8	151.0	153.3	155.4
100°	183.0	166.7	150.5	143.1	144.4	145.7	147.0	148.4
102.5°	248.8	251.1	253.3	250.1	241.5	232.9	224.3	215.7
105°	302.0	308.5	315.1	319.4	321.5	323.7	325.8	327.9
107.5°	350.2	356.7	363.2	367.2	368.8	370.3	371.9	373.4
110°	380.9	386.6	392.3	396.4	398.9	401.3	403.8	406.1





TEST NUMBER: P333468-830

CATALOG NUMBER: S125DIW-S1270D770U830-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	411.1	416.5	421.9	425.6	427.6	429.7	431.8	433.9
115°	457.5	462.8	468.1	471.2	472.2	473.3	474.3	475.3
117.5°	501.5	506.3	511.0	514.3	516.1	517.9	519.8	521.6
120°	530.3	535.5	540.7	543.9	545.2	546.3	547.5	548.7
122.5°	556.9	561.8	566.8	569.9	570.9	571.9	573.1	574.1
125°	596.2	600.8	605.3	608.2	609.4	610.6	611.7	612.9
127.5°	631.0	635.6	640.1	642.6	643.4	644.1	644.9	645.6
130°	654.7	658.8	662.9	665.3	666.3	667.1	668.0	668.8
132.5°	675.9	680.3	684.9	687.4	688.0	688.5	689.2	689.8
135°	706.2	710.1	714.0	716.3	717.0	717.7	718.4	719.2
137.5°	735.5	739.3	743.3	745.5	746.0	746.5	747.0	747.5
140°	753.1	757.1	760.9	763.1	763.5	763.8	764.2	764.6
142.5°	771.0	774.2	777.3	779.0	779.4	779.8	780.1	780.5
145°	797.7	799.5	801.3	802.3	802.7	803.0	803.4	803.8
147.5°	821.1	821.9	822.7	822.7	822.2	821.6	821.1	820.6
150°	836.6	836.9	837.3	836.9	836.0	835.1	834.2	833.2
152.5°	851.1	851.4	851.8	851.4	850.4	849.2	848.2	847.2
155°	871.1	871.6	872.0	871.7	870.4	869.2	868.0	866.7
157.5°	887.7	888.2	888.6	888.3	887.0	885.8	884.6	883.4
160°	898.0	898.6	899.2	898.9	897.7	896.5	895.2	893.9
162.5°	907.4	908.2	909.2	908.9	907.6	906.2	904.8	903.4
165°	919.5	920.5	921.4	921.2	920.0	918.8	917.6	916.2
167.5°	928.7	929.8	930.9	930.9	929.4	928.0	926.6	925.2
170°	933.4	934.7	935.9	935.9	934.4	933.0	931.6	930.3
172.5°	937.1	938.2	939.3	939.1	937.8	936.4	935.0	933.6
175°	941.1	942.4	943.6	943.5	942.2	940.8	939.3	937.9
177.5°	942.7	943.6	944.5	944.4	943.4	942.4	941.4	940.5
180°	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2

(END OF REPORT)