

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: P332567-840

Luminaire Tested: **S124DIP-S575D1035U840-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332567-840  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DIP-S575D1035U840-4F0-1E-UDD-D4  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6127.1 lumens  
Efficiency: N/A  
Efficacy: 137.7 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')  
CIE Type: Semi-Indirect

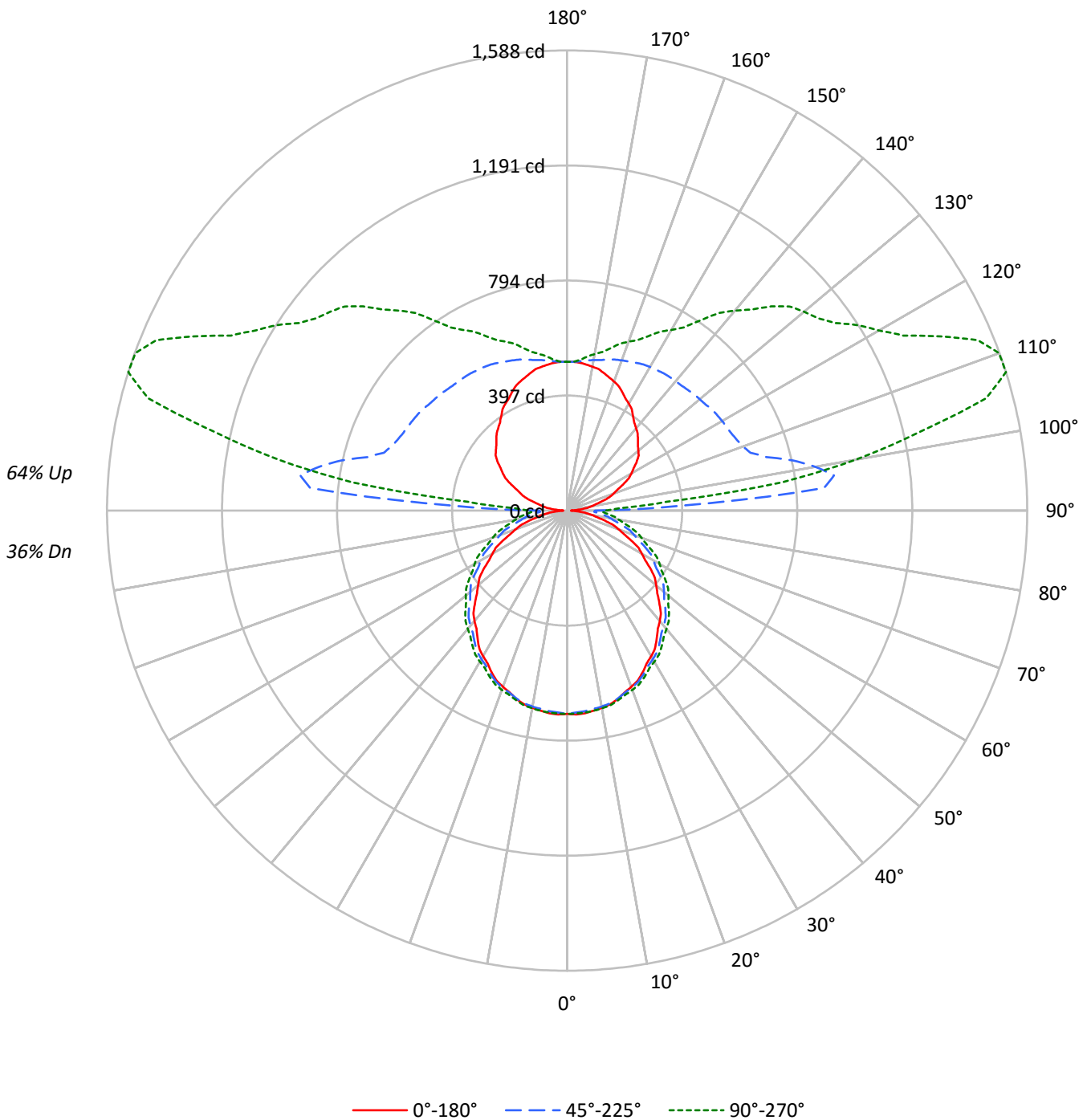
Input Watts (W): 44.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P332567-840

CATALOG NUMBER: S124DIP-S575D1035U840-4F0-1E-UDD-D4

### Luminous Intensity Polar Plot





TEST NUMBER: P332567-840

CATALOG NUMBER: S124DIP-S575D1035U840-4F0-1E-UDD-D4

**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	50	30	10	0	
RCR																						
0	104	104	104	104	94	94	94	94	76	76	76	59	59	59	43	43	43	36				
1	94	89	85	82	85	81	77	74	65	63	60	51	49	47	37	36	35	29				
2	85	78	71	66	77	70	65	60	57	53	49	44	41	39	32	31	29	24				
3	77	68	60	55	70	62	55	50	50	45	41	39	35	33	28	26	24	20				
4	71	60	52	46	64	54	47	42	44	39	35	34	31	28	25	23	21	17				
5	65	53	45	39	58	48	41	36	39	34	30	30	27	24	23	20	18	14				
6	60	47	39	34	54	43	36	31	35	30	26	27	24	21	20	18	16	12				
7	55	43	35	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11				
8	51	39	31	26	46	35	28	24	29	24	20	23	19	16	17	14	12	10				
9	47	35	28	23	43	32	25	21	26	21	18	21	17	14	16	13	11	9				
10	44	32	25	20	40	29	23	19	24	19	16	19	15	13	14	12	10	8				

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

	0°	45°	90°
0°	5666	5666	5666
5°	5683	5537	5552
10°	5649	5446	5442
15°	5598	5341	5312
20°	5521	5226	5185
25°	5435	5096	5047
30°	5342	4967	4904
35°	5237	4834	4779
40°	5153	4710	4648
45°	5027	4594	4537
50°	4920	4460	4418
55°	4811	4333	4278
60°	4641	4173	4153
65°	4454	4001	3997
70°	4226	3805	3816
75°	3910	3587	3652
80°	3559	3381	3492
85°	3112	3195	3398



TEST NUMBER: P332567-840

CATALOG NUMBER: S124DIP-S575D1035U840-4F0-1E-UDD-D4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.5	1.1
10°-20°	190.4	3.1
20°-30°	287.9	4.7
30°-40°	348.3	5.7
40°-50°	368.3	6.0
50°-60°	346.6	5.7
60°-70°	287.5	4.7
70°-80°	202.0	3.3
80°-90°	117.0	1.9
90°-100°	438.4	7.2
100°-110°	821.6	13.4
110°-120°	724.6	11.8
120°-130°	600.2	9.8
130°-140°	492.8	8.0
140°-150°	371.9	6.1
150°-160°	260.2	4.2
160°-170°	153.1	2.5
170°-180°	49.8	0.8
0°-30°	544.7	8.9
0°-40°	893.1	14.6
0°-60°	1607.9	26.2
0°-90°	2214.4	36.1
90°-120°	1984.7	32.4
90°-150°	3449.6	56.3
90°-180°	3913.0	63.9
0°-180°	6127.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	702	702	702	702	702	
5°	703	700	695	700	700	67
15°	674	674	672	678	678	190
25°	616	621	623	631	633	284
35°	539	548	556	567	570	337
45°	450	464	479	492	497	347
55°	352	369	392	407	412	314
65°	244	269	296	314	321	241
75°	135	164	197	218	226	144
85°	42	75	110	133	142	44
90°	14	52	96	120	128	10
95°	44	141	890	496	343	45
105°	125	194	713	1495	1496	134
115°	212	273	627	1187	1422	211
125°	292	347	609	1001	1128	260
135°	345	411	589	875	996	267
145°	397	454	579	726	801	249
155°	451	486	563	637	664	208
165°	491	506	539	571	580	139
175°	512	513	517	524	522	49
180°	513	513	513	513	513	



TEST NUMBER: P332567-840

CATALOG NUMBER: S124DIP-S575D1035U840-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	701.8	701.8	701.8	701.8	701.8	701.8	701.8	701.8	701.8	701.8	701.8
2.5°	704.3	703.9	703.5	703.0	702.6	701.9	700.7	699.6	698.4	697.3	698.3
5°	702.6	702.1	701.5	700.9	700.4	699.5	698.3	697.1	695.9	694.7	696.1
7.5°	696.6	696.2	695.9	695.6	695.3	694.7	693.7	692.7	691.6	690.5	692.2
10°	691.6	691.4	691.2	691.1	690.8	690.3	689.4	688.5	687.7	686.8	688.4
12.5°	684.6	684.6	684.6	684.5	684.5	684.2	683.6	683.0	682.4	681.8	683.2
15°	673.5	673.7	673.8	674.0	674.2	674.0	673.5	673.0	672.4	671.9	673.5
17.5°	658.2	658.7	659.2	659.7	660.4	660.6	660.5	660.4	660.2	660.1	661.7
20°	647.5	648.0	648.5	649.1	649.6	649.9	650.2	650.4	650.5	650.7	652.4
22.5°	635.6	636.2	636.9	637.5	638.2	638.7	639.0	639.3	639.6	640.0	641.8
25°	616.1	617.1	618.2	619.2	620.3	621.1	621.6	622.1	622.7	623.2	625.1
27.5°	594.4	595.9	597.4	599.1	600.6	601.7	602.5	603.3	604.1	604.9	606.7
30°	580.0	581.4	582.7	584.1	585.5	586.8	588.0	589.3	590.5	591.8	593.7
32.5°	564.2	565.9	567.5	569.3	571.0	572.5	573.8	575.2	576.5	577.9	580.1
35°	539.1	541.2	543.3	545.3	547.4	549.4	551.1	552.9	554.6	556.3	558.9
37.5°	513.8	516.1	518.6	521.0	523.4	525.7	527.9	530.1	532.2	534.3	536.8
40°	497.5	499.7	502.0	504.2	506.5	508.9	511.3	513.7	516.2	518.7	521.3
42.5°	478.6	481.1	483.6	486.3	488.8	491.5	494.3	497.2	500.1	502.9	505.8
45°	449.5	452.8	456.2	459.5	462.7	466.1	469.4	472.7	476.1	479.4	482.3
47.5°	421.7	425.1	428.5	431.9	435.4	439.0	442.8	446.7	450.5	454.3	457.5
50°	401.5	405.4	409.2	413.1	417.0	420.8	424.6	428.5	432.3	436.2	439.6
52.5°	381.4	385.3	389.1	392.9	396.8	400.9	405.4	409.7	414.1	418.5	422.0
55°	352.0	355.7	359.4	363.0	366.7	371.1	376.4	381.6	386.9	392.1	395.7
57.5°	319.2	323.8	328.3	332.9	337.4	342.2	347.4	352.6	357.9	363.0	367.2
60°	297.8	302.4	306.9	311.4	316.0	321.1	326.9	332.6	338.4	344.2	348.2
62.5°	277.1	282.1	287.0	292.0	296.9	302.3	308.0	313.8	319.6	325.4	329.3
65°	243.6	249.2	254.8	260.3	266.0	271.8	277.6	283.6	289.5	295.5	299.8
67.5°	211.4	217.3	223.3	229.2	235.1	241.3	247.6	254.0	260.3	266.7	271.1
70°	189.3	195.3	201.3	207.2	213.2	219.4	226.0	232.7	239.3	246.0	250.6
72.5°	168.0	174.1	180.2	186.2	192.3	198.8	205.9	213.0	220.0	227.1	231.7
75°	135.1	141.6	148.0	154.5	161.0	167.9	175.2	182.6	190.0	197.2	202.2
77.5°	104.5	111.4	118.3	125.0	131.9	139.2	146.8	154.5	162.2	169.9	174.8
80°	85.6	92.6	99.7	106.6	113.6	120.9	128.7	136.3	144.0	151.7	156.9
82.5°	66.8	74.0	81.3	88.6	95.8	103.3	111.0	118.7	126.3	134.1	139.5
85°	41.6	49.0	56.4	63.6	71.0	78.6	86.4	94.3	102.2	110.0	115.2
87.5°	23.4	31.0	38.7	46.0	53.4	60.8	69.6	77.3	85.3	93.4	98.3
90°	13.5	22.6	32.6	40.6	48.6	55.8	69.4	76.9	86.4	95.9	100.0
92.5°	23.4	34.9	50.7	69.3	90.3	118.2	176.9	262.7	346.4	393.8	345.3
95°	43.5	52.3	68.2	86.9	116.9	165.7	260.6	433.1	681.3	890.0	918.0
97.5°	69.0	73.9	87.6	104.6	130.4	171.9	246.5	390.1	636.7	928.9	1129.4
100°	85.2	89.8	101.4	118.1	141.8	179.7	246.0	366.7	579.2	870.3	1133.1
102.5°	101.4	106.9	117.2	132.5	154.8	190.8	251.4	358.2	539.9	798.6	1069.3
105°	125.0	131.6	140.1	155.6	177.3	211.6	266.4	356.5	504.1	713.2	954.5
107.5°	152.7	157.5	165.5	181.3	201.5	234.8	285.3	367.6	494.2	663.5	861.1
110°	170.6	175.1	182.6	197.1	217.7	249.2	299.6	376.4	493.3	645.6	814.0



TEST NUMBER: P332567-840

CATALOG NUMBER: S124DIP-S575D1035U840-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	187.7	191.9	200.0	213.4	233.7	264.9	313.5	385.9	495.3	635.2	785.7
115°	212.4	217.0	225.6	237.3	258.0	288.8	334.7	400.8	500.2	626.7	757.6
117.5°	238.8	242.6	249.8	261.9	280.7	312.0	355.6	416.4	505.6	621.0	742.1
120°	256.0	258.5	266.1	277.7	295.4	326.4	369.8	427.3	510.0	617.8	733.3
122.5°	272.1	274.2	281.3	291.8	310.6	340.5	383.5	437.6	514.3	613.9	723.7
125°	292.5	296.3	302.3	313.2	332.1	362.4	403.1	453.8	521.7	608.7	708.8
127.5°	311.0	314.2	321.2	333.8	353.6	383.5	422.0	467.9	526.6	601.8	689.6
130°	320.9	324.8	332.6	347.6	366.6	397.2	434.2	476.4	530.6	597.8	677.6
132.5°	331.4	334.5	344.8	358.9	379.5	408.2	444.6	485.4	534.2	594.5	666.9
135°	345.4	349.4	359.5	376.6	397.8	424.6	459.1	496.7	539.2	588.8	650.1
137.5°	360.1	363.8	374.7	390.8	412.6	437.8	469.5	503.9	541.2	584.9	635.7
140°	370.5	373.4	384.4	401.3	422.3	446.5	476.9	509.4	543.8	582.3	627.9
142.5°	381.2	384.3	394.5	410.7	431.1	454.4	483.7	513.5	546.0	581.0	621.5
145°	397.0	399.8	409.7	423.6	442.6	464.7	491.0	518.2	547.4	578.7	612.0
147.5°	415.0	415.8	424.4	438.8	454.5	474.4	499.1	522.8	548.5	575.0	603.6
150°	426.3	427.1	434.9	446.9	461.8	480.9	503.1	525.2	548.5	572.6	597.8
152.5°	436.1	436.3	444.2	455.6	469.0	486.6	506.3	526.8	546.8	568.6	591.4
155°	450.6	451.6	457.7	467.8	478.9	494.0	511.1	528.3	544.4	562.6	581.7
157.5°	464.9	464.9	470.6	478.5	488.2	500.1	514.5	528.3	541.8	556.3	571.8
160°	473.8	473.8	477.9	484.9	493.0	504.1	516.1	528.3	539.4	551.5	564.6
162.5°	481.9	481.1	484.3	490.6	497.9	506.5	517.8	528.3	536.9	546.6	558.2
165°	491.0	491.0	493.0	498.1	503.1	509.1	518.2	526.2	532.3	539.4	547.4
167.5°	500.1	499.1	500.1	503.9	506.8	511.3	518.0	523.8	527.5	532.1	537.8
170°	504.1	503.1	504.1	507.2	509.1	512.1	517.2	522.2	524.2	527.3	531.3
172.5°	508.1	507.2	507.3	509.5	510.7	512.9	516.3	520.6	521.0	522.4	525.6
175°	512.1	511.1	511.1	512.1	513.1	513.1	515.1	518.2	517.2	517.2	519.2
177.5°	513.9	513.1	512.3	513.1	513.1	513.1	513.9	515.5	513.9	513.9	514.7
180°	513.1	513.1	513.1	513.1	513.1	513.1	513.1	513.1	513.1	513.1	513.1



TEST NUMBER: P332567-840

CATALOG NUMBER: S124DIP-S575D1035U840-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	701.8	701.8	701.8	701.8	701.8	701.8	701.8	701.8
2.5°	699.3	700.2	701.3	701.7	701.6	701.4	701.3	701.1
5°	697.5	698.8	700.2	700.8	700.7	700.5	700.3	700.1
7.5°	693.8	695.3	696.9	697.6	697.4	697.2	697.0	696.9
10°	689.9	691.6	693.1	693.8	693.7	693.5	693.3	693.1
12.5°	684.7	686.1	687.5	688.2	688.2	688.1	688.1	688.1
15°	675.0	676.6	678.1	678.8	678.7	678.5	678.3	678.1
17.5°	663.3	664.9	666.5	667.2	667.1	667.0	666.8	666.7
20°	654.2	655.9	657.6	658.5	658.5	658.5	658.5	658.5
22.5°	643.5	645.2	646.9	648.0	648.2	648.5	648.8	649.1
25°	627.0	628.9	630.9	631.9	632.1	632.3	632.4	632.6
27.5°	608.5	610.3	612.1	613.1	613.3	613.5	613.7	613.9
30°	595.6	597.5	599.5	600.6	600.9	601.3	601.6	602.0
32.5°	582.3	584.5	586.7	587.9	588.3	588.7	589.1	589.4
35°	561.3	563.7	566.1	567.6	568.2	568.7	569.2	569.8
37.5°	539.4	541.8	544.3	545.8	546.3	546.9	547.4	548.1
40°	523.9	526.5	529.2	530.8	531.5	532.2	532.9	533.6
42.5°	508.8	511.6	514.5	516.2	516.8	517.4	518.0	518.5
45°	485.3	488.3	491.2	493.1	494.0	494.9	495.7	496.7
47.5°	460.5	463.6	466.7	468.7	469.8	470.8	471.9	472.9
50°	443.1	446.7	450.1	452.4	453.4	454.4	455.6	456.6
52.5°	425.6	429.0	432.5	434.7	435.9	436.9	437.9	439.0
55°	399.1	402.6	406.1	408.4	409.4	410.5	411.5	412.5
57.5°	371.3	375.6	379.7	382.2	383.2	384.2	385.2	386.2
60°	352.2	356.3	360.2	362.9	364.4	365.8	367.2	368.6
62.5°	333.4	337.4	341.4	344.1	345.5	346.9	348.3	349.7
65°	304.2	308.6	313.0	315.8	317.2	318.6	320.0	321.4
67.5°	275.6	280.0	284.5	287.3	288.7	290.0	291.4	292.8
70°	255.4	260.1	264.8	267.8	269.0	270.2	271.5	272.7
72.5°	236.2	240.9	245.4	248.3	249.7	251.1	252.5	253.8
75°	207.0	211.9	216.8	220.0	221.6	223.2	224.8	226.3
77.5°	179.9	184.8	189.8	193.1	194.7	196.4	198.0	199.8
80°	162.2	167.3	172.6	175.9	177.3	178.7	180.2	181.6
82.5°	144.8	150.2	155.6	159.1	160.6	162.1	163.6	165.2
85°	120.5	125.7	131.0	134.5	136.2	137.9	139.7	141.5
87.5°	103.5	108.8	114.0	117.3	119.1	120.8	122.2	123.7
90°	106.0	112.1	118.3	121.5	123.8	126.2	126.6	128.1
92.5°	281.9	237.8	212.3	195.3	184.8	180.8	178.7	180.1
95°	824.9	673.3	542.9	448.3	400.4	370.7	354.2	342.6
97.5°	1176.4	1122.9	1028.9	926.7	855.8	796.6	767.8	748.4
100°	1285.0	1309.9	1265.2	1193.6	1107.0	1046.8	1017.7	1010.9
102.5°	1276.0	1380.5	1399.4	1371.3	1318.9	1275.7	1245.2	1240.0
105°	1189.7	1368.5	1472.7	1516.9	1520.4	1513.7	1501.0	1496.3
107.5°	1070.0	1259.9	1404.7	1497.4	1548.5	1572.8	1584.1	1588.0
110°	997.4	1175.9	1326.1	1439.7	1512.7	1556.4	1576.0	1586.4





TEST NUMBER: P332567-840

CATALOG NUMBER: S124DIP-S575D1035U840-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	943.2	1101.4	1243.3	1356.9	1439.6	1492.2	1518.9	1535.1
115°	887.5	1015.3	1137.1	1236.4	1317.3	1379.0	1412.5	1421.8
117.5°	857.3	963.6	1060.0	1144.5	1213.9	1266.1	1300.1	1307.8
120°	842.6	939.9	1024.0	1098.0	1156.9	1202.6	1230.2	1242.7
122.5°	829.8	923.8	1000.7	1065.7	1115.6	1154.8	1178.2	1190.5
125°	809.0	899.0	971.9	1029.5	1070.9	1101.2	1121.4	1128.4
127.5°	783.8	869.7	942.2	997.0	1038.7	1065.9	1083.3	1090.6
130°	764.5	847.3	919.0	974.4	1016.8	1043.1	1060.3	1067.3
132.5°	744.7	822.5	892.5	948.0	989.5	1019.0	1035.3	1042.5
135°	716.4	784.7	849.0	901.3	942.7	972.0	989.2	996.2
137.5°	691.1	749.1	803.4	850.7	889.3	918.0	932.2	940.3
140°	676.5	726.2	773.9	817.8	853.9	877.0	891.9	900.9
142.5°	663.4	707.2	748.1	786.1	818.1	839.4	852.6	859.0
145°	645.3	680.6	712.0	741.0	766.9	784.8	795.6	801.3
147.5°	630.4	657.7	682.1	704.6	723.7	739.0	747.2	749.6
150°	622.1	645.2	665.4	683.6	699.6	712.8	718.8	719.8
152.5°	613.2	633.1	651.7	666.6	680.3	690.9	694.6	695.6
155°	599.9	616.0	631.1	643.2	653.3	661.4	664.4	664.4
157.5°	585.5	599.1	611.8	621.5	629.0	635.1	636.9	636.9
160°	576.6	587.7	598.8	606.9	613.0	619.0	620.1	620.1
162.5°	567.7	577.2	585.9	593.2	597.6	603.7	604.7	603.9
165°	555.5	561.6	568.6	573.6	577.6	581.7	580.7	579.7
167.5°	543.6	548.3	553.9	556.9	559.0	561.6	561.4	560.6
170°	536.3	539.4	543.4	546.4	548.5	549.5	548.5	548.5
172.5°	529.9	532.1	534.5	536.7	538.0	539.0	538.0	536.3
175°	521.2	522.2	524.2	524.2	524.2	526.2	524.2	522.2
177.5°	515.5	516.3	516.3	517.2	516.3	517.2	515.5	513.9
180°	513.1	513.1	513.1	513.1	513.1	513.1	513.1	513.1

(END OF REPORT)