

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: P332575-840

Luminaire Tested: **S124DIP-S575D1205U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

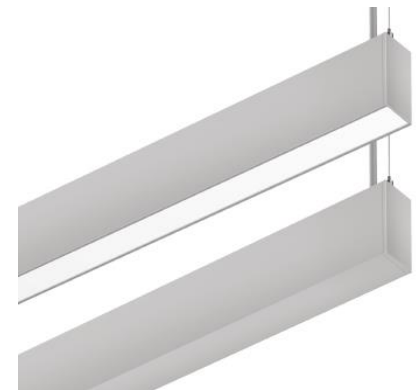
**Test Information**

Test Method: LM-79-08  
Report Number: P332575-840  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DIP-S575D1205U840-4F0-1E-UDD-D1  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1205 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6605.6 lumens  
Efficiency: N/A  
Efficacy: 133.7 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

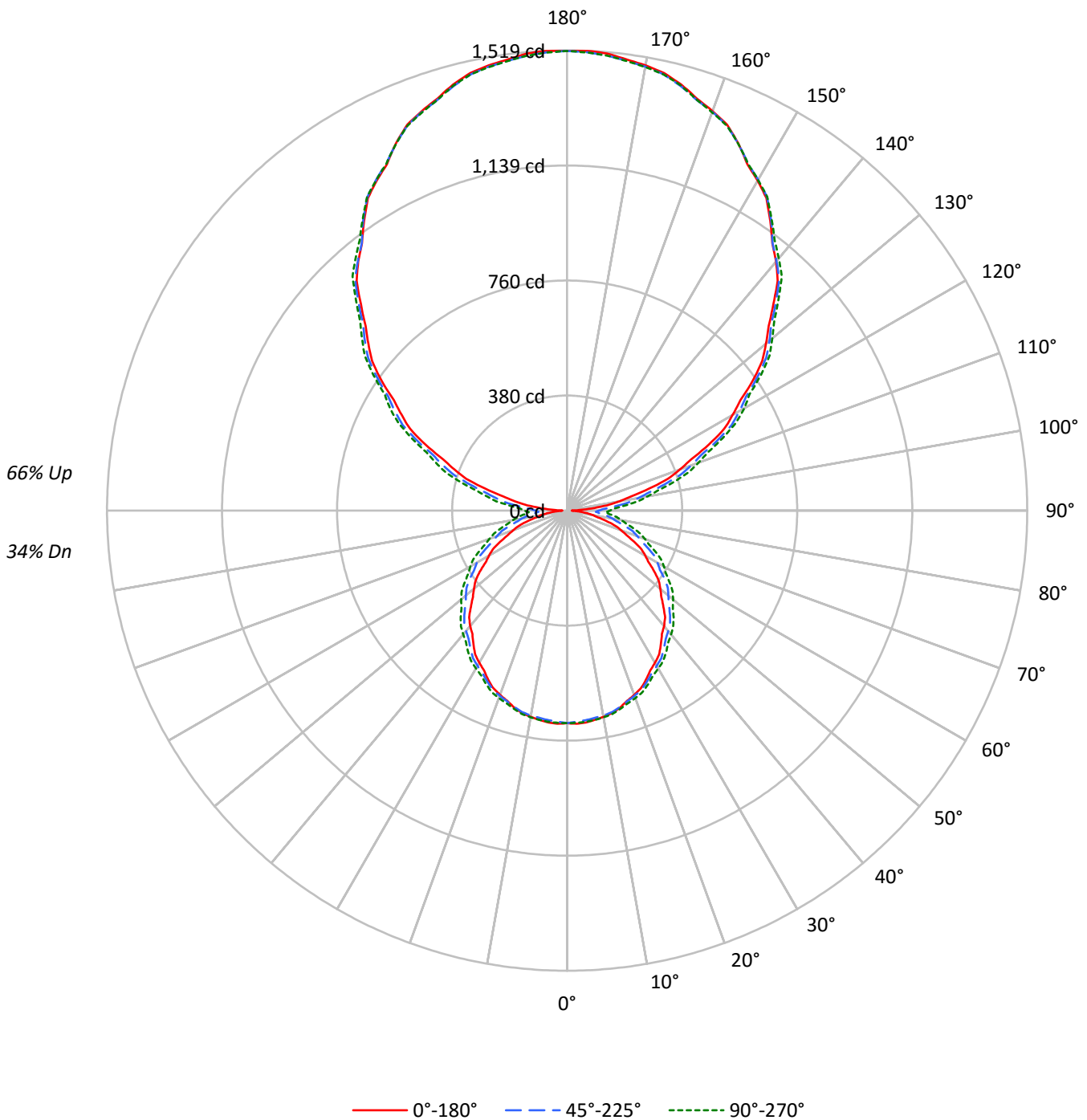
Input Watts (W): 49.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	34
1	93	89	85	81	84	80	77	74	64	61	59	49	47	46	35	34	33	27
2	85	77	71	66	76	70	64	60	56	52	48	43	40	38	30	29	27	22
3	77	68	60	54	69	61	55	50	49	44	40	37	34	32	27	25	23	18
4	70	60	52	46	63	54	47	42	43	38	34	33	30	27	24	21	20	15
5	64	53	45	39	58	48	41	36	38	33	29	30	26	23	21	19	17	13
6	59	47	39	33	53	43	36	31	34	29	25	27	23	20	19	17	15	12
7	55	42	35	29	49	38	32	27	31	26	22	24	20	17	17	15	13	10
8	51	38	31	25	45	35	28	23	28	23	19	22	18	15	16	13	12	9
9	47	35	27	22	42	32	25	21	26	21	17	20	16	14	15	12	10	8
10	44	32	25	20	39	29	23	18	24	19	15	18	15	12	14	11	9	7

**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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.5	1.0
10°-20°	190.4	2.9
20°-30°	287.9	4.4
30°-40°	348.3	5.3
40°-50°	368.3	5.6
50°-60°	346.6	5.2
60°-70°	287.5	4.4
70°-80°	202.0	3.1
80°-90°	118.7	1.8
90°-100°	167.9	2.5
100°-110°	346.6	5.2
110°-120°	536.8	8.1
120°-130°	682.4	10.3
130°-140°	753.2	11.4
140°-150°	733.8	11.1
150°-160°	615.7	9.3
160°-170°	409.7	6.2
170°-180°	143.5	2.2
0°-30°	544.7	8.2
0°-40°	893.1	13.5
0°-60°	1607.9	24.3
0°-90°	2216.1	33.5
90°-120°	1051.2	15.9
90°-150°	3220.6	48.8
90°-180°	4389.0	66.4
0°-180°	6605.6	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°	16	60	104	132	142	13
95°	81	117	158	181	189	86
105°	280	298	331	354	364	298
115°	516	524	546	562	566	509
125°	748	748	766	778	781	667
135°	962	969	975	985	986	745
145°	1168	1172	1173	1177	1176	731
155°	1338	1337	1336	1340	1336	615
165°	1456	1453	1450	1456	1452	410
175°	1515	1509	1508	1515	1508	144
180°	1517	1517	1517	1517	1517	



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**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°	23.9	31.7	39.4	47.1	54.7	62.6	70.7	78.8	86.8	94.9	100.3
90°	16.1	26.0	35.7	45.6	55.5	65.2	74.8	84.4	94.0	103.6	110.3
92.5°	37.1	46.7	56.1	65.7	75.3	84.6	93.6	102.5	111.5	120.5	126.3
95°	80.6	88.8	96.8	104.9	113.0	121.6	130.6	139.6	148.6	157.5	163.0
97.5°	132.2	139.1	145.9	152.7	159.6	167.6	176.8	186.0	195.3	204.5	210.1
100°	172.9	178.4	184.1	189.7	195.2	202.6	211.8	221.0	230.0	239.2	244.5
102.5°	216.1	220.5	224.9	229.2	233.7	240.2	249.1	257.9	266.7	275.5	280.8
105°	280.4	284.2	287.9	291.8	295.5	301.0	308.6	316.1	323.6	331.1	336.3
107.5°	349.5	352.6	355.9	359.0	362.2	367.0	373.2	379.5	385.8	392.0	397.1
110°	395.8	398.8	401.7	404.8	407.7	412.1	418.0	423.7	429.6	435.5	439.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	444.0	446.3	448.5	450.8	453.0	456.9	462.2	467.6	473.0	478.4	482.1
115°	516.2	517.9	519.4	521.0	522.5	525.8	530.9	536.0	541.1	546.1	549.7
117.5°	585.1	586.2	587.4	588.5	589.7	592.7	597.5	602.4	607.2	612.1	614.8
120°	630.5	632.0	633.6	635.1	636.7	639.6	643.9	648.2	652.5	656.8	658.9
122.5°	678.3	678.8	679.3	679.8	680.4	682.9	687.3	691.8	696.1	700.5	703.2
125°	748.2	748.0	747.8	747.6	747.5	749.4	753.6	757.6	761.7	765.9	768.6
127.5°	812.0	812.6	813.2	813.9	814.5	816.3	819.2	822.1	825.1	828.0	830.6
130°	856.5	857.1	857.7	858.3	858.9	860.6	863.4	866.2	869.0	871.8	874.4
132.5°	902.5	902.9	903.3	903.7	904.0	905.2	907.4	909.4	911.4	913.4	915.8
135°	962.5	964.0	965.6	967.1	968.8	970.1	971.4	972.6	973.8	975.0	977.2
137.5°	1028.6	1029.2	1029.8	1030.3	1030.9	1031.7	1032.7	1033.7	1034.7	1035.7	1037.5
140°	1072.8	1073.1	1073.5	1073.8	1074.2	1074.4	1074.6	1074.8	1074.9	1075.1	1077.1
142.5°	1112.5	1113.0	1113.5	1114.0	1114.4	1114.5	1114.2	1113.9	1113.6	1113.3	1115.2
145°	1168.2	1169.0	1169.9	1170.7	1171.6	1172.3	1172.5	1172.8	1173.0	1173.3	1174.1
147.5°	1223.6	1224.7	1225.7	1226.8	1227.9	1228.3	1228.1	1227.9	1227.7	1227.5	1227.4
150°	1257.4	1258.2	1259.1	1259.9	1260.8	1261.2	1261.2	1261.2	1261.2	1261.2	1261.2
152.5°	1288.6	1289.2	1289.8	1290.4	1291.0	1291.4	1291.6	1291.8	1292.0	1292.2	1292.8
155°	1337.5	1337.5	1337.5	1337.5	1337.5	1337.4	1337.2	1336.9	1336.6	1336.4	1337.4
157.5°	1378.8	1378.4	1377.9	1377.5	1377.0	1376.6	1376.6	1376.5	1376.5	1376.4	1377.3
160°	1403.2	1403.0	1402.7	1402.4	1402.2	1401.9	1401.7	1401.4	1401.1	1400.9	1401.7
162.5°	1425.7	1425.0	1424.4	1423.7	1423.0	1422.6	1422.3	1422.1	1421.8	1421.5	1422.9
165°	1456.0	1455.2	1454.4	1453.7	1452.9	1452.2	1451.7	1451.2	1450.7	1450.2	1451.7
167.5°	1479.3	1478.1	1477.0	1475.9	1474.9	1474.3	1474.4	1474.4	1474.5	1474.5	1476.1
170°	1492.4	1491.1	1489.8	1488.4	1487.1	1486.6	1486.9	1487.1	1487.4	1487.7	1489.2
172.5°	1501.8	1500.7	1499.5	1498.4	1497.4	1496.8	1496.9	1497.0	1497.0	1497.1	1498.8
175°	1514.7	1513.4	1512.1	1510.8	1509.4	1508.6	1508.4	1508.1	1507.9	1507.6	1509.4
177.5°	1518.9	1517.8	1516.8	1515.8	1514.7	1514.2	1514.2	1514.2	1514.2	1514.2	1515.7
180°	1517.0	1517.0	1517.0	1517.0	1517.0	1517.0	1517.0	1517.0	1517.0	1517.0	1517.0



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**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°	105.6	111.1	116.4	120.0	121.6	123.2	124.8	126.5
90°	116.8	123.5	130.2	134.4	136.3	138.3	140.2	142.1
92.5°	132.2	138.0	143.9	147.7	149.5	151.2	152.9	154.6
95°	168.5	174.0	179.6	183.1	184.6	186.2	187.7	189.3
97.5°	215.5	221.1	226.6	230.0	231.6	233.1	234.6	236.1
100°	249.7	255.0	260.1	263.4	264.6	265.9	267.1	268.3
102.5°	286.1	291.4	296.7	300.1	301.7	303.3	304.9	306.5
105°	341.4	346.6	351.7	355.4	357.5	359.7	361.9	364.1
107.5°	402.0	407.1	412.1	415.3	416.5	417.7	418.9	420.0
110°	442.5	446.0	449.5	452.3	454.4	456.7	458.9	461.0





TEST NUMBER: P332575-840

CATALOG NUMBER: S124DIP-S575D1205U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	485.8	489.7	493.4	496.0	497.7	499.2	500.8	502.3
115°	553.3	556.8	560.5	562.7	563.7	564.6	565.6	566.5
117.5°	617.5	620.3	623.0	624.8	625.7	626.6	627.4	628.3
120°	661.2	663.4	665.5	667.6	669.5	671.5	673.4	675.3
122.5°	705.8	708.4	710.9	712.5	712.8	713.1	713.4	713.7
125°	771.4	774.3	777.0	778.7	779.2	779.7	780.3	780.8
127.5°	833.2	835.9	838.5	840.2	840.9	841.7	842.5	843.2
130°	877.1	879.7	882.3	883.6	883.6	883.6	883.6	883.6
132.5°	918.4	920.8	923.3	924.8	925.5	926.1	926.8	927.4
135°	979.6	981.8	984.1	985.3	985.6	985.9	986.1	986.4
137.5°	1039.5	1041.3	1043.2	1044.6	1045.6	1046.7	1047.7	1048.7
140°	1079.1	1081.2	1083.2	1084.5	1085.1	1085.7	1086.3	1086.9
142.5°	1117.1	1119.1	1121.1	1122.4	1123.0	1123.7	1124.4	1125.1
145°	1174.9	1175.6	1176.4	1176.8	1176.7	1176.6	1176.5	1176.4
147.5°	1227.3	1227.3	1227.2	1227.3	1227.6	1227.9	1228.2	1228.5
150°	1261.2	1261.2	1261.2	1261.1	1260.8	1260.6	1260.3	1260.1
152.5°	1293.4	1294.1	1294.7	1294.7	1294.0	1293.3	1292.6	1292.0
155°	1338.5	1339.5	1340.5	1340.5	1339.5	1338.5	1337.4	1336.4
157.5°	1378.1	1378.8	1379.6	1379.6	1378.7	1377.8	1376.8	1376.0
160°	1402.4	1403.2	1404.0	1403.7	1402.4	1401.1	1399.9	1398.6
162.5°	1424.3	1425.7	1427.1	1427.2	1425.9	1424.6	1423.3	1422.0
165°	1453.3	1454.8	1456.4	1456.6	1455.6	1454.6	1453.5	1452.5
167.5°	1477.6	1479.3	1480.8	1480.8	1479.1	1477.5	1475.9	1474.3
170°	1490.9	1492.4	1494.0	1493.8	1492.0	1490.2	1488.3	1486.5
172.5°	1500.7	1502.4	1504.2	1504.2	1502.3	1500.5	1498.6	1496.8
175°	1511.3	1513.1	1514.9	1514.9	1513.1	1511.3	1509.4	1507.6
177.5°	1517.1	1518.6	1520.0	1519.9	1518.2	1516.6	1514.9	1513.3
180°	1517.0	1517.0	1517.0	1517.0	1517.0	1517.0	1517.0	1517.0

(END OF REPORT)