

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: P331673

Luminaire Tested: **S122RDIP-S485D1080U835-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331673
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122RDIP-S485D1080U835-4F0-1E-UDD-F1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1080 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5551.7 lumens
Efficiency: N/A
Efficacy: 112.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

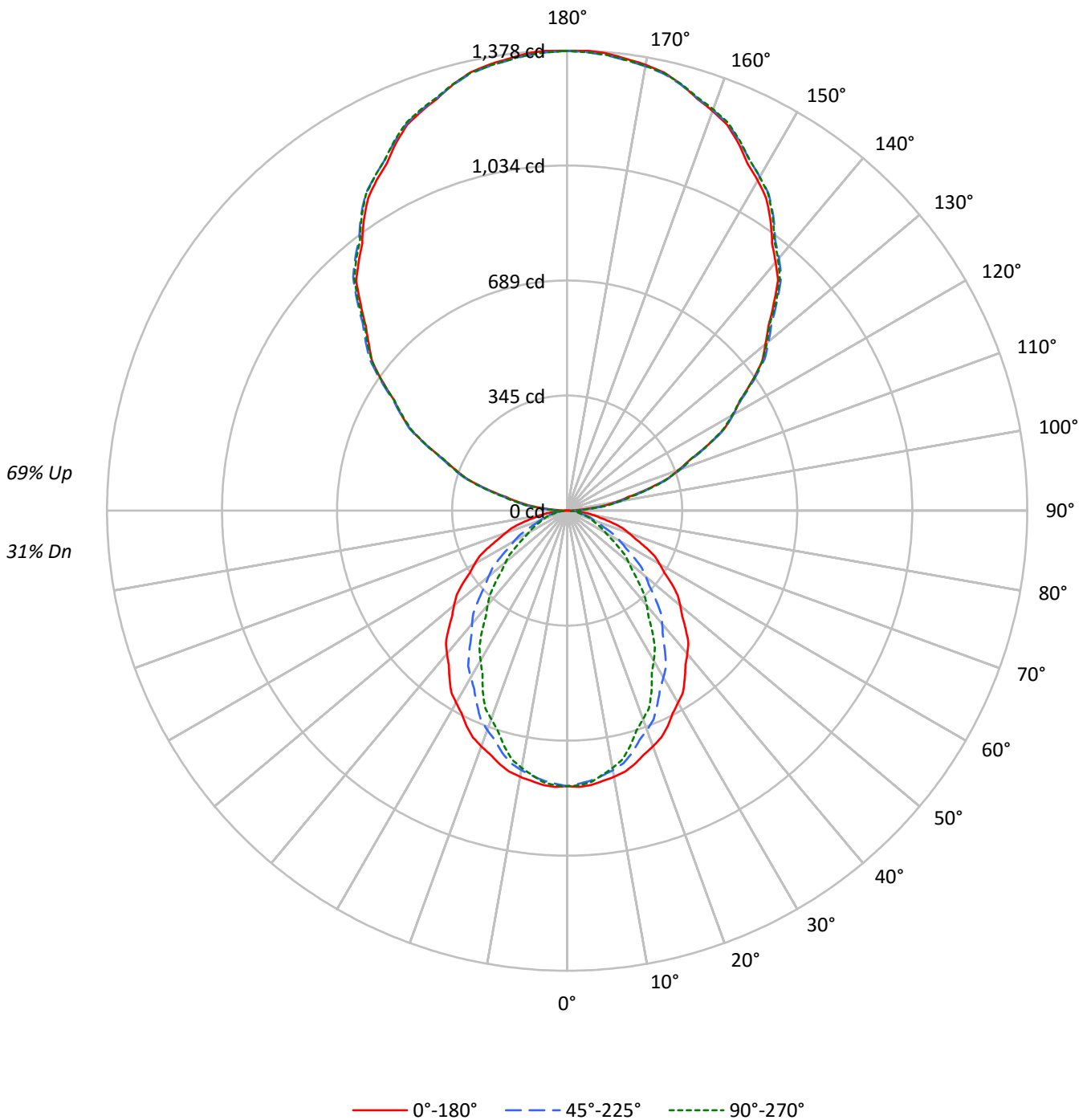
Input Watts (W): 49.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	92	92	92	73	73	73	55	55	55	38	38	38	31
1	94	90	86	83	84	81	78	75	64	62	60	48	47	46	34	34	33	26
2	86	79	73	68	77	71	66	62	56	53	50	43	41	39	31	29	28	23
3	78	69	62	57	70	63	57	52	50	46	42	38	35	33	27	26	24	19
4	72	61	54	48	64	56	49	44	44	40	36	34	31	29	25	23	21	17
5	66	55	47	41	59	50	43	38	40	35	31	31	27	25	22	20	19	15
6	61	49	41	36	54	45	38	33	36	31	27	28	24	22	20	18	16	13
7	56	44	37	31	50	40	34	29	33	28	24	25	22	19	19	16	15	12
8	52	40	33	28	47	37	30	26	30	25	21	23	20	17	17	15	13	11
9	48	37	29	25	43	33	27	23	27	22	19	21	18	16	16	14	12	10
10	45	33	27	22	41	31	24	20	25	20	17	20	16	14	15	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13324	13324	13324
5°	13374	13157	13230
10°	13273	12942	12832
15°	13120	12558	12197
20°	12909	12010	11407
25°	12693	11389	10644
30°	12392	10750	9663
35°	12100	10054	8803
40°	11805	9335	7807
45°	11460	8526	6907
50°	11105	7709	6021
55°	10742	6832	5171
60°	10320	5909	4292
65°	9845	4963	3908
70°	9272	4088	3597
75°	8571	3724	3356
80°	7569	3329	3059
85°	5947	2631	2631



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.2	1.4
10°-20°	212.1	3.8
20°-30°	297.8	5.4
30°-40°	324.8	5.9
40°-50°	298.6	5.4
50°-60°	234.5	4.2
60°-70°	152.9	2.8
70°-80°	78.8	1.4
80°-90°	26.0	0.5
90°-100°	87.2	1.6
100°-110°	270.9	4.9
110°-120°	463.1	8.3
120°-130°	608.9	11.0
130°-140°	683.5	12.3
140°-150°	670.1	12.1
150°-160°	562.1	10.1
160°-170°	372.8	6.7
170°-180°	130.3	2.3
0°-30°	587.2	10.6
0°-40°	912.0	16.4
0°-60°	1445.1	26.0
0°-90°	1702.8	30.7
90°-120°	821.2	14.8
90°-150°	2783.7	50.1
90°-180°	3849.0	69.3
0°-180°	5551.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	825	825	825	825	825	
5°	825	821	812	818	816	78
15°	785	776	751	738	730	221
25°	712	687	639	610	598	327
35°	614	574	510	465	447	384
45°	502	450	373	322	302	387
55°	382	322	243	200	184	341
65°	258	197	130	106	102	255
75°	137	87	60	55	54	145
85°	32	17	14	14	14	38
90°	1	16	41	39	40	5
95°	60	72	74	74	72	69
105°	250	253	256	258	258	264
115°	465	471	469	468	465	459
125°	676	686	683	680	678	604
135°	875	887	890	888	885	675
145°	1062	1070	1077	1078	1073	663
155°	1214	1217	1221	1226	1223	558
165°	1321	1320	1320	1327	1322	372
175°	1374	1371	1368	1376	1370	130
180°	1376	1376	1376	1376	1376	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	825.2	825.2	825.2	825.2	825.2	825.2	825.2	825.2	825.2	825.2	825.2
2.5°	828.2	827.6	826.9	826.2	825.6	824.5	823.1	821.6	820.1	818.7	820.0
5°	825.2	824.4	823.6	822.8	821.9	820.4	818.3	816.1	814.0	811.8	813.3
7.5°	816.7	815.7	814.7	813.6	812.6	810.8	808.3	805.8	803.3	800.8	801.2
10°	809.6	808.4	807.2	806.1	804.9	802.7	799.4	796.0	792.7	789.4	788.9
12.5°	800.6	799.2	797.7	796.3	794.9	792.1	787.8	783.6	779.3	775.1	774.2
15°	784.9	783.1	781.3	779.4	777.6	773.9	768.2	762.6	757.0	751.3	748.2
17.5°	765.7	762.9	760.1	757.3	754.5	749.5	742.3	735.0	727.8	720.5	716.8
20°	751.3	748.0	744.7	741.4	738.0	732.2	723.9	715.6	707.3	699.0	694.9
22.5°	735.8	732.1	728.3	724.6	720.9	714.4	705.0	695.6	686.3	676.9	671.6
25°	712.5	707.2	701.9	696.5	691.2	683.1	672.1	661.2	650.2	639.3	632.5
27.5°	684.4	678.6	672.8	667.1	661.3	652.2	639.9	627.5	615.2	602.8	594.9
30°	664.7	658.4	652.1	645.8	639.5	629.7	616.4	603.1	589.8	576.6	568.1
32.5°	645.6	638.2	630.8	623.5	616.1	605.6	592.1	578.5	565.0	551.5	541.8
35°	613.9	605.4	597.0	588.5	580.0	568.5	553.9	539.3	524.7	510.1	499.6
37.5°	582.2	572.9	563.6	554.3	545.1	532.6	517.1	501.5	485.9	470.4	458.8
40°	560.1	550.2	540.2	530.3	520.3	507.3	491.2	475.1	459.0	442.9	431.1
42.5°	537.4	526.9	516.4	506.0	495.5	481.9	465.3	448.6	432.0	415.4	403.2
45°	501.9	490.8	479.6	468.5	457.4	443.1	425.7	408.3	390.8	373.4	361.6
47.5°	467.2	455.4	443.7	431.9	420.1	405.2	387.2	369.2	351.2	333.2	321.5
50°	442.1	430.3	418.6	406.8	395.0	380.0	361.7	343.5	325.2	306.9	295.5
52.5°	417.6	405.3	393.0	380.7	368.4	353.3	335.4	317.6	299.7	281.9	270.8
55°	381.6	368.7	355.7	342.8	329.9	314.4	296.5	278.6	260.6	242.7	232.8
57.5°	344.7	331.5	318.2	304.9	291.6	276.4	259.2	241.9	224.7	207.5	198.3
60°	319.6	306.4	293.1	279.8	266.5	251.4	234.3	217.2	200.1	183.0	174.5
62.5°	295.1	281.9	268.6	255.3	242.0	227.3	211.0	194.7	178.4	162.1	154.0
65°	257.7	244.2	230.8	217.3	203.9	189.7	174.8	159.8	144.9	129.9	124.3
67.5°	221.5	208.2	194.8	181.5	168.1	154.7	141.3	127.9	114.4	101.0	98.4
70°	196.4	183.5	170.5	157.6	144.6	132.4	121.0	109.5	98.1	86.6	85.0
72.5°	172.5	160.1	147.7	135.3	122.9	112.1	102.9	93.7	84.5	75.3	73.9
75°	137.4	125.8	114.2	102.6	90.9	82.3	76.7	71.0	65.4	59.7	58.6
77.5°	102.9	92.7	82.5	72.3	62.2	55.7	53.0	50.3	47.5	44.8	44.1
80°	81.4	72.9	64.5	56.0	47.5	42.5	40.8	39.2	37.5	35.8	35.2
82.5°	61.7	55.1	48.5	41.9	35.3	31.4	30.3	29.1	28.0	26.9	26.5
85°	32.1	28.6	25.1	21.7	18.2	16.2	15.7	15.2	14.7	14.2	14.2
87.5°	9.8	9.3	8.9	8.5	8.0	8.4	9.5	10.6	11.8	12.9	12.7
90°	1.2	4.3	7.4	10.5	13.6	17.9	23.6	29.3	35.0	40.7	40.1
92.5°	20.7	22.9	25.2	27.5	29.8	31.6	32.9	34.3	35.6	36.9	37.0
95°	60.4	63.0	65.6	68.1	70.7	72.3	72.8	73.3	73.8	74.3	74.3
97.5°	110.4	112.6	114.9	117.2	119.4	121.1	122.0	123.0	124.0	125.0	125.0
100°	147.5	149.6	151.7	153.7	155.8	157.2	158.0	158.7	159.5	160.3	160.3
102.5°	186.6	188.2	189.9	191.5	193.2	194.5	195.5	196.4	197.4	198.4	198.6
105°	249.7	250.5	251.3	252.1	252.8	253.5	254.0	254.5	255.0	255.5	256.1
107.5°	313.4	314.5	315.7	316.8	317.9	318.5	318.5	318.5	318.5	318.5	318.7
110°	354.3	355.8	357.4	358.9	360.5	361.3	361.3	361.3	361.3	361.3	361.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	398.9	400.4	402.0	403.5	405.1	405.8	405.5	405.3	405.1	404.9	404.3
115°	464.6	466.2	467.7	469.3	470.8	471.3	470.8	470.3	469.8	469.3	469.0
117.5°	530.1	532.2	534.3	536.3	538.4	538.7	537.3	535.8	534.4	532.9	532.3
120°	573.8	575.9	578.0	580.0	582.1	582.1	580.0	578.0	575.9	573.8	573.8
122.5°	613.8	616.3	618.7	621.2	623.7	624.2	622.8	621.3	619.9	618.4	617.8
125°	676.0	678.4	680.7	683.0	685.3	686.1	685.3	684.6	683.8	683.0	682.2
127.5°	736.7	739.6	742.6	745.5	748.4	749.5	748.5	747.6	746.7	745.7	744.8
130°	774.8	778.1	781.5	784.8	788.2	789.6	789.1	788.6	788.1	787.6	787.0
132.5°	817.5	820.3	823.0	825.7	828.5	829.9	830.0	830.1	830.2	830.3	829.2
135°	874.7	877.5	880.4	883.2	886.0	887.7	888.2	888.7	889.3	889.8	889.5
137.5°	934.8	937.2	939.5	941.8	944.1	945.6	946.3	947.0	947.6	948.3	948.1
140°	971.1	973.4	975.7	978.1	980.4	982.2	983.5	984.8	986.1	987.3	987.3
142.5°	1008.3	1010.6	1012.9	1015.2	1017.5	1019.1	1020.0	1020.9	1021.8	1022.7	1022.9
145°	1061.7	1063.5	1065.3	1067.1	1068.9	1070.6	1072.1	1073.7	1075.2	1076.8	1077.0
147.5°	1109.3	1111.5	1113.6	1115.8	1118.0	1119.6	1120.6	1121.7	1122.7	1123.7	1124.3
150°	1141.8	1143.4	1144.9	1146.5	1148.0	1149.3	1150.4	1151.4	1152.4	1153.5	1154.2
152.5°	1170.6	1172.2	1173.7	1175.3	1176.8	1178.2	1179.5	1180.7	1182.0	1183.2	1184.2
155°	1213.9	1214.6	1215.4	1216.2	1217.0	1217.7	1218.5	1219.3	1220.1	1220.8	1222.1
157.5°	1250.8	1251.3	1251.8	1252.3	1252.9	1253.3	1253.8	1254.3	1254.7	1255.2	1257.0
160°	1273.1	1273.6	1274.1	1274.6	1275.2	1275.5	1275.8	1276.1	1276.3	1276.6	1278.1
162.5°	1293.5	1293.6	1293.7	1293.8	1294.0	1294.1	1294.4	1294.6	1294.9	1295.2	1296.9
165°	1320.7	1320.5	1320.2	1319.9	1319.7	1319.6	1319.6	1319.6	1319.6	1319.6	1321.4
167.5°	1343.5	1342.7	1341.9	1341.2	1340.4	1340.0	1339.9	1339.9	1339.8	1339.8	1341.6
170°	1355.6	1354.8	1354.0	1353.2	1352.5	1352.0	1351.7	1351.4	1351.2	1350.9	1352.7
172.5°	1363.9	1363.2	1362.4	1361.6	1360.8	1360.3	1360.1	1359.8	1359.5	1359.3	1361.1
175°	1374.2	1373.4	1372.6	1371.8	1371.1	1370.4	1369.9	1369.4	1368.9	1368.3	1370.2
177.5°	1378.3	1377.7	1377.1	1376.5	1375.9	1375.3	1374.9	1374.5	1374.1	1373.7	1374.9
180°	1376.5	1376.5	1376.5	1376.5	1376.5	1376.5	1376.5	1376.5	1376.5	1376.5	1376.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	825.2	825.2	825.2	825.2	825.2	825.2	825.2	825.2
2.5°	821.3	822.7	824.0	824.5	824.3	824.0	823.7	823.5
5°	814.8	816.3	817.8	818.3	817.8	817.3	816.8	816.3
7.5°	801.6	802.0	802.5	802.3	801.4	800.5	799.7	798.8
10°	788.4	787.9	787.4	786.7	785.7	784.7	783.7	782.7
12.5°	773.3	772.4	771.5	770.2	768.5	766.9	765.2	763.6
15°	745.0	741.9	738.7	736.3	734.6	733.0	731.3	729.7
17.5°	713.0	709.3	705.5	702.2	699.4	696.5	693.7	690.8
20°	690.7	686.6	682.4	678.5	674.9	671.2	667.6	663.9
22.5°	666.2	660.9	655.6	651.5	648.8	646.1	643.4	640.6
25°	625.7	618.9	612.1	607.4	604.9	602.4	600.0	597.5
27.5°	587.0	579.0	571.1	565.2	561.2	557.3	553.3	549.4
30°	559.6	551.2	542.7	536.2	531.7	527.3	522.8	518.3
32.5°	532.1	522.5	512.8	505.9	501.7	497.5	493.2	489.0
35°	489.2	478.7	468.3	461.2	457.6	453.9	450.3	446.6
37.5°	447.3	435.8	424.3	416.4	412.3	408.1	403.9	399.7
40°	419.3	407.5	395.7	387.7	383.4	379.1	374.7	370.4
42.5°	391.0	378.8	366.7	358.5	354.3	350.1	345.9	341.7
45°	349.8	338.1	326.3	318.4	314.4	310.4	306.4	302.5
47.5°	309.8	298.1	286.4	278.7	275.1	271.5	267.8	264.2
50°	284.0	272.6	261.1	253.7	250.2	246.7	243.2	239.7
52.5°	259.7	248.7	237.6	230.5	227.3	224.1	220.8	217.6
55°	222.8	212.8	202.9	196.3	193.2	190.0	186.9	183.7
57.5°	189.2	180.1	171.0	165.1	162.4	159.8	157.1	154.4
60°	166.0	157.6	149.1	143.6	140.9	138.2	135.6	132.9
62.5°	145.9	137.9	129.8	125.0	123.4	121.8	120.2	118.6
65°	118.7	113.0	107.4	104.3	103.8	103.3	102.8	102.3
67.5°	95.8	93.2	90.6	89.1	88.5	88.0	87.5	86.9
70°	83.3	81.7	80.0	78.8	78.2	77.5	76.8	76.2
72.5°	72.5	71.1	69.7	68.8	68.4	68.0	67.6	67.2
75°	57.4	56.3	55.1	54.4	54.3	54.1	53.9	53.8
77.5°	43.5	42.8	42.2	41.7	41.4	41.2	40.9	40.6
80°	34.5	33.9	33.2	32.9	32.9	32.9	32.9	32.9
82.5°	26.1	25.7	25.3	25.1	25.1	25.1	25.1	25.1
85°	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
87.5°	12.4	12.2	12.0	11.9	11.9	12.0	12.0	12.1
90°	39.6	39.1	38.6	38.5	38.7	39.0	39.2	39.5
92.5°	37.1	37.2	37.4	37.4	37.5	37.5	37.6	37.6
95°	74.3	74.3	74.3	74.1	73.6	73.1	72.5	72.0
97.5°	125.0	125.0	125.0	125.0	124.9	124.9	124.8	124.8
100°	160.3	160.3	160.3	160.2	159.9	159.7	159.4	159.1
102.5°	198.8	199.0	199.2	199.2	198.9	198.7	198.4	198.2
105°	256.6	257.1	257.6	257.9	257.9	257.9	257.9	257.9
107.5°	318.9	319.1	319.3	318.8	317.7	316.5	315.3	314.1
110°	361.3	361.3	361.3	360.9	360.1	359.3	358.5	357.8



TEST NUMBER: P331673

CATALOG NUMBER: S122RDIP-S485D1080U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	403.7	403.1	402.5	401.9	401.3	400.7	400.2	399.6
115°	468.8	468.5	468.2	467.7	467.0	466.2	465.4	464.6
117.5°	531.7	531.1	530.5	529.8	529.0	528.2	527.4	526.7
120°	573.8	573.8	573.8	573.4	572.7	571.9	571.1	570.3
122.5°	617.2	616.6	615.9	615.4	614.8	614.2	613.7	613.1
125°	681.5	680.7	679.9	679.4	679.1	678.9	678.6	678.4
127.5°	743.9	742.9	742.0	741.1	740.3	739.5	738.7	737.8
130°	786.5	786.0	785.5	784.7	783.7	782.6	781.6	780.6
132.5°	828.0	826.9	825.8	824.8	824.0	823.1	822.3	821.5
135°	889.3	889.0	888.7	888.2	887.4	886.7	885.9	885.1
137.5°	947.9	947.7	947.5	946.9	945.8	944.8	943.8	942.7
140°	987.3	987.3	987.3	986.8	985.8	984.8	983.7	982.7
142.5°	1023.1	1023.3	1023.5	1023.1	1022.0	1021.0	1020.0	1018.9
145°	1077.3	1077.6	1077.8	1077.4	1076.4	1075.4	1074.3	1073.3
147.5°	1124.9	1125.4	1126.0	1125.8	1124.8	1123.8	1122.8	1121.9
150°	1155.0	1155.8	1156.6	1156.6	1155.8	1155.0	1154.2	1153.5
152.5°	1185.2	1186.1	1187.1	1187.1	1186.1	1185.2	1184.2	1183.2
155°	1223.4	1224.7	1226.0	1226.2	1225.5	1224.7	1223.9	1223.1
157.5°	1258.7	1260.5	1262.2	1262.5	1261.2	1260.0	1258.8	1257.5
160°	1279.7	1281.2	1282.8	1283.0	1282.0	1281.0	1279.9	1278.9
162.5°	1298.7	1300.4	1302.2	1302.4	1301.2	1300.0	1298.7	1297.5
165°	1323.2	1325.0	1326.8	1327.0	1325.8	1324.5	1323.2	1321.9
167.5°	1343.4	1345.2	1347.0	1347.2	1345.9	1344.5	1343.2	1341.9
170°	1354.5	1356.3	1358.1	1358.3	1356.7	1355.2	1353.6	1352.1
172.5°	1362.9	1364.7	1366.5	1366.6	1365.1	1363.5	1362.0	1360.4
175°	1372.0	1373.8	1375.6	1375.7	1374.2	1372.6	1371.1	1369.5
177.5°	1376.2	1377.4	1378.6	1378.6	1377.4	1376.2	1374.9	1373.7
180°	1376.5	1376.5	1376.5	1376.5	1376.5	1376.5	1376.5	1376.5

(END OF REPORT)