

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: P331325

Luminaire Tested: **S122DIP-S485D1080U835-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331325
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: S122DIP-S485D1080U835-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1080 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5820.3 lumens
Efficiency: N/A
Efficacy: 117.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

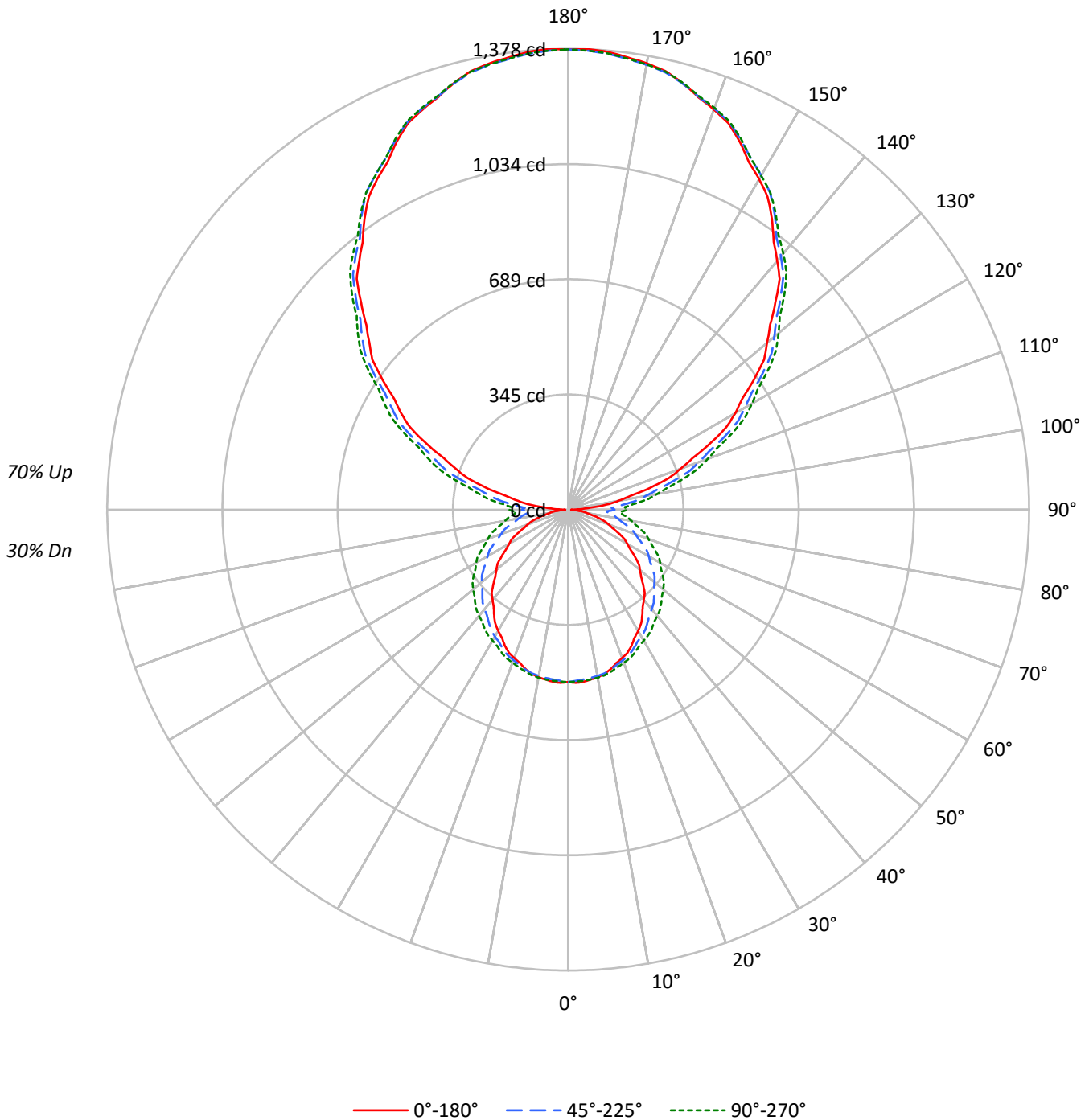
Input Watts (W): 49.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20										
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	50	30	10	0														
RCR																																						
0	102	102	102	102	92	92	92	92	72	72	72	54	54	54	38	38	38	30					30															
1	92	88	84	80	83	79	75	72	62	59	57	46	45	43	32	31	30	23					23															
2	84	76	70	65	75	68	63	58	54	50	47	40	38	35	28	26	25	19					19															
3	76	67	59	53	68	60	53	48	47	42	39	35	32	29	24	22	21	16					16															
4	69	59	51	45	62	53	46	41	41	37	33	31	28	25	21	19	17	13					13															
5	64	52	44	38	57	47	40	34	37	32	28	28	24	21	19	17	15	11					11															
6	58	46	38	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10					10															
7	54	42	34	28	48	38	31	26	30	25	21	23	19	16	16	13	11	9					9															
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	8					8															
9	46	34	27	22	41	31	24	20	25	20	16	19	15	13	13	11	9	7					7															
10	43	31	24	19	39	28	22	18	23	18	15	17	14	11	12	10	8	6					6															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8320	8320	8320
5°	8361	8009	7978
10°	8308	7773	7685
15°	8193	7522	7376
20°	8049	7253	7078
25°	7906	6994	6809
30°	7704	6728	6536
35°	7501	6472	6346
40°	7287	6254	6154
45°	7084	6058	5992
50°	6865	5879	5830
55°	6634	5689	5666
60°	6355	5493	5493
65°	6063	5262	5287
70°	5738	5012	5065
75°	5319	4768	4860
80°	4657	4519	4652
85°	4025	4303	4491



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.8	0.8
10°-20°	140.0	2.4
20°-30°	212.2	3.6
30°-40°	258.4	4.4
40°-50°	278.0	4.8
50°-60°	270.0	4.6
60°-70°	235.8	4.1
70°-80°	181.5	3.1
80°-90°	127.3	2.2
90°-100°	171.1	2.9
100°-110°	332.2	5.7
110°-120°	503.5	8.7
120°-130°	631.5	10.9
130°-140°	692.9	11.9
140°-150°	671.8	11.5
150°-160°	562.1	9.7
160°-170°	372.8	6.4
170°-180°	130.3	2.2
0°-30°	401.0	6.9
0°-40°	659.5	11.3
0°-60°	1207.5	20.7
0°-90°	1752.1	30.1
90°-120°	1006.8	17.3
90°-150°	3003.1	51.6
90°-180°	4068.0	69.9
0°-180°	5820.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	515	515	515	515	515	
5°	517	514	510	514	514	49
15°	493	494	494	501	500	139
25°	448	453	460	469	471	206
35°	386	399	413	429	435	241
45°	317	337	363	385	394	244
55°	243	270	308	334	345	217
65°	166	203	246	276	287	165
75°	92	134	182	212	223	97
85°	27	73	121	151	163	29
90°	9	67	139	166	177	8
95°	66	113	160	187	195	74
105°	254	280	320	347	356	268
115°	468	484	514	534	540	462
125°	678	689	708	724	731	605
135°	875	888	898	912	915	676
145°	1062	1070	1077	1082	1082	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°	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3
2.5°	518.3	517.9	517.5	517.1	516.7	516.0	515.1	514.2	513.3	512.3	513.0
5°	516.8	516.3	515.8	515.3	514.8	514.1	513.1	512.1	511.1	510.1	511.1
7.5°	512.2	511.8	511.5	511.2	510.9	510.3	509.5	508.8	508.0	507.2	508.4
10°	508.6	508.3	507.9	507.6	507.3	506.9	506.4	505.9	505.4	504.9	506.2
12.5°	502.6	502.7	502.8	502.8	502.9	502.7	502.4	502.0	501.6	501.3	502.6
15°	492.9	493.2	493.6	493.9	494.2	494.4	494.4	494.4	494.4	494.4	495.9
17.5°	480.4	481.1	481.8	482.5	483.2	483.8	484.3	484.8	485.4	485.9	487.4
20°	472.0	472.8	473.7	474.5	475.3	476.1	476.7	477.4	478.1	478.7	480.5
22.5°	463.0	464.0	465.0	465.9	466.9	467.8	468.8	469.7	470.6	471.6	473.4
25°	448.1	449.3	450.4	451.6	452.7	454.1	455.6	457.1	458.6	460.0	462.0
27.5°	430.2	432.1	434.0	435.9	437.7	439.6	441.3	443.1	444.8	446.6	449.1
30°	418.2	420.4	422.5	424.7	426.9	429.0	431.2	433.3	435.5	437.6	440.3
32.5°	405.1	407.5	409.9	412.4	414.8	417.3	419.8	422.4	424.9	427.5	430.5
35°	386.1	388.9	391.8	394.6	397.4	400.4	403.5	406.7	409.8	413.0	416.6
37.5°	365.5	368.8	372.0	375.3	378.5	382.2	386.3	390.3	394.4	398.5	402.6
40°	351.8	355.4	359.1	362.7	366.4	370.4	374.9	379.4	383.9	388.4	392.7
42.5°	338.6	342.3	345.9	349.6	353.2	357.6	362.8	367.9	373.1	378.2	382.9
45°	316.7	321.1	325.6	330.1	334.6	339.7	345.5	351.3	357.2	363.0	368.1
47.5°	295.0	299.9	304.8	309.6	314.5	320.4	327.2	334.0	340.8	347.6	353.0
50°	280.1	285.2	290.4	295.5	300.6	306.9	314.4	321.9	329.4	336.8	342.5
52.5°	265.7	271.1	276.5	282.0	287.4	294.0	301.9	309.7	317.6	325.5	331.2
55°	242.7	248.7	254.7	260.6	266.6	273.9	282.6	291.2	299.8	308.4	314.4
57.5°	220.0	226.8	233.5	240.2	247.0	254.7	263.5	272.3	281.1	289.9	296.4
60°	203.9	211.0	218.2	225.3	232.4	240.7	250.2	259.6	269.1	278.6	284.9
62.5°	189.5	196.9	204.4	211.8	219.2	227.6	237.0	246.5	256.0	265.4	272.1
65°	165.8	173.9	182.1	190.2	198.3	207.3	217.1	226.9	236.7	246.5	253.3
67.5°	144.0	152.5	161.0	169.5	178.0	187.2	197.3	207.3	217.3	227.3	234.2
70°	128.5	137.1	145.7	154.3	163.0	172.4	182.7	193.0	203.3	213.6	220.7
72.5°	114.1	123.0	131.9	140.8	149.7	159.4	169.8	180.2	190.6	201.0	208.1
75°	91.9	101.2	110.4	119.7	129.0	139.0	149.6	160.2	170.9	181.5	188.6
77.5°	70.4	80.1	89.8	99.5	109.3	119.5	130.3	141.1	151.9	162.7	169.8
80°	56.0	66.1	76.3	86.4	96.5	107.0	117.8	128.5	139.3	150.1	157.1
82.5°	44.1	54.1	64.0	74.0	84.0	94.5	105.4	116.3	127.2	138.2	145.1
85°	26.9	37.2	47.5	57.8	68.0	78.5	89.1	99.7	110.4	121.0	128.0
87.5°	14.9	25.4	35.9	46.4	56.9	68.0	79.8	91.6	103.3	115.1	121.7
90°	8.6	21.4	34.1	46.8	59.5	74.0	90.3	106.6	122.9	139.2	145.4
92.5°	27.5	38.8	50.0	61.2	72.5	83.9	95.4	107.0	118.6	130.1	136.8
95°	66.4	76.8	87.1	97.5	107.9	118.3	128.8	139.3	149.8	160.2	166.5
97.5°	115.6	124.8	134.0	143.2	152.4	162.3	172.8	183.4	193.9	204.4	210.6
100°	152.7	161.0	169.2	177.4	185.6	194.7	204.8	214.8	224.9	235.0	241.1
102.5°	191.2	198.4	205.7	213.0	220.2	228.9	238.9	248.9	258.9	268.9	275.1
105°	253.5	259.1	264.6	270.2	275.8	283.2	292.3	301.5	310.6	319.8	326.1
107.5°	317.0	322.0	327.0	331.9	336.9	343.6	351.8	360.1	368.3	376.6	382.4
110°	357.3	362.1	367.0	371.9	376.7	383.2	391.4	399.5	407.6	415.8	421.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	401.9	406.2	410.5	414.9	419.2	425.2	432.7	440.2	447.7	455.3	460.0
115°	467.6	471.0	474.4	477.7	481.1	486.3	493.2	500.2	507.1	514.1	518.8
117.5°	532.4	535.6	538.9	542.2	545.4	549.8	555.2	560.7	566.2	571.6	575.9
120°	576.1	578.8	581.5	584.2	587.0	590.6	595.2	599.8	604.4	608.9	613.6
122.5°	616.0	618.8	621.5	624.3	627.0	630.8	635.6	640.4	645.1	649.9	653.8
125°	677.5	679.9	682.2	684.5	686.8	690.3	694.8	699.3	703.9	708.4	712.1
127.5°	738.2	740.9	743.7	746.5	749.3	752.3	755.7	759.0	762.4	765.8	768.9
130°	776.3	779.5	782.6	785.8	789.0	792.1	795.1	798.0	801.0	804.0	807.5
132.5°	819.0	821.6	824.2	826.7	829.3	832.0	834.8	837.6	840.4	843.1	845.9
135°	875.4	878.3	881.1	883.9	886.8	889.3	891.5	893.6	895.8	898.0	901.2
137.5°	935.6	937.9	940.2	942.5	944.7	946.6	948.0	949.4	950.8	952.2	955.0
140°	971.8	974.0	976.1	978.3	980.5	982.3	984.0	985.6	987.2	988.8	991.5
142.5°	1009.0	1011.2	1013.3	1015.5	1017.6	1019.2	1020.1	1021.1	1022.0	1023.0	1025.3
145°	1061.7	1063.5	1065.3	1067.1	1068.9	1070.6	1072.1	1073.7	1075.2	1076.8	1078.0
147.5°	1109.3	1111.5	1113.6	1115.8	1118.0	1119.6	1120.6	1121.7	1122.7	1123.7	1124.4
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°	515.3	515.3	515.3	515.3	515.3	515.3	515.3	515.3
2.5°	513.7	514.3	515.0	515.2	514.9	514.7	514.4	514.1
5°	512.1	513.1	514.1	514.5	514.3	514.2	514.0	513.8
7.5°	509.6	510.8	512.0	512.5	512.4	512.2	512.0	511.9
10°	507.5	508.8	510.2	510.8	510.6	510.4	510.3	510.1
12.5°	503.9	505.3	506.6	507.2	507.0	506.8	506.7	506.5
15°	497.4	498.9	500.4	501.0	500.9	500.7	500.5	500.4
17.5°	489.0	490.6	492.1	492.9	492.9	492.9	492.9	492.9
20°	482.4	484.2	486.0	486.9	486.9	486.9	486.9	486.9
22.5°	475.2	477.0	478.9	479.9	480.2	480.4	480.7	481.0
25°	464.0	466.0	468.0	469.3	469.8	470.3	470.8	471.3
27.5°	451.7	454.2	456.7	458.1	458.5	458.9	459.2	459.6
30°	443.0	445.6	448.3	449.8	450.3	450.8	451.3	451.8
32.5°	433.6	436.6	439.7	441.7	442.6	443.5	444.4	445.3
35°	420.3	424.0	427.6	430.0	431.2	432.3	433.5	434.7
37.5°	406.6	410.7	414.7	417.3	418.6	419.8	421.0	422.3
40°	397.0	401.3	405.6	408.5	410.0	411.5	413.0	414.5
42.5°	387.6	392.3	397.0	400.2	401.6	403.1	404.6	406.1
45°	373.3	378.4	383.5	386.9	388.6	390.3	391.9	393.6
47.5°	358.3	363.7	369.1	372.7	374.5	376.3	378.2	380.0
50°	348.1	353.7	359.4	363.1	365.0	366.8	368.6	370.4
52.5°	337.0	342.8	348.6	352.4	354.4	356.4	358.3	360.3
55°	320.4	326.4	332.3	336.4	338.6	340.7	342.9	345.0
57.5°	302.8	309.2	315.7	320.0	322.2	324.4	326.6	328.8
60°	291.2	297.5	303.8	308.1	310.4	312.8	315.1	317.4
62.5°	278.8	285.5	292.2	296.7	298.9	301.1	303.3	305.5
65°	260.1	266.9	273.7	278.2	280.3	282.5	284.6	286.8
67.5°	241.1	247.9	254.8	259.4	261.6	263.9	266.2	268.4
70°	227.9	235.0	242.1	246.7	248.7	250.7	252.7	254.7
72.5°	215.1	222.1	229.1	233.8	236.1	238.5	240.9	243.3
75°	195.8	202.9	210.0	214.7	216.8	219.0	221.1	223.3
77.5°	176.9	184.0	191.1	195.8	198.1	200.4	202.8	205.1
80°	164.1	171.0	178.0	182.6	185.0	187.3	189.6	191.9
82.5°	152.1	159.1	166.0	170.6	172.8	175.0	177.2	179.4
85°	134.9	141.9	148.9	153.5	155.8	158.2	160.5	162.8
87.5°	128.4	135.1	141.7	146.2	148.3	150.5	152.7	154.9
90°	151.5	157.6	163.7	167.9	170.2	172.4	174.7	176.9
92.5°	143.4	150.0	156.6	160.9	162.9	165.0	167.0	169.1
95°	172.8	179.1	185.5	189.3	190.8	192.3	193.8	195.2
97.5°	216.7	222.9	229.0	233.0	234.9	236.8	238.8	240.7
100°	247.3	253.4	259.5	263.4	265.0	266.5	268.1	269.7
102.5°	281.3	287.5	293.8	297.6	299.2	300.8	302.4	303.9
105°	332.4	338.8	345.1	349.2	351.0	352.8	354.6	356.5
107.5°	388.2	394.0	399.7	403.0	403.6	404.2	404.9	405.5
110°	426.4	431.7	437.0	440.2	441.2	442.3	443.3	444.4



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CATALOG NUMBER: S122DIP-S485D1080U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	464.6	469.3	474.0	477.0	478.3	479.5	480.8	482.0
115°	523.5	528.3	533.0	535.9	536.9	538.0	539.0	540.1
117.5°	580.2	584.5	588.8	591.4	592.3	593.2	594.2	595.1
120°	618.2	622.9	627.5	630.4	631.4	632.5	633.5	634.6
122.5°	657.7	661.6	665.5	668.0	669.0	669.9	670.9	671.9
125°	715.8	719.5	723.2	725.7	726.9	728.2	729.4	730.6
127.5°	772.1	775.3	778.5	780.4	781.0	781.7	782.3	782.9
130°	810.9	814.4	817.9	819.7	820.0	820.3	820.6	820.9
132.5°	848.6	851.3	854.0	855.6	856.1	856.6	857.1	857.6
135°	904.4	907.7	910.9	912.8	913.3	913.9	914.4	915.0
137.5°	957.9	960.7	963.6	965.1	965.2	965.3	965.3	965.4
140°	994.2	996.8	999.5	1000.8	1000.7	1000.7	1000.7	1000.6
142.5°	1027.6	1029.9	1032.3	1033.4	1033.2	1033.0	1032.9	1032.7
145°	1079.3	1080.5	1081.8	1082.3	1082.1	1081.9	1081.7	1081.5
147.5°	1125.1	1125.8	1126.5	1126.6	1126.0	1125.4	1124.8	1124.2
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)