

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: P331667-830

Luminaire Tested: **SA2XXRDIP-C485D925U830-4F0-1E-UDD-F1**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331667-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA2XXRDIP-C485D925U830-4F0-1E-UDD-F1  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 485 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 925 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

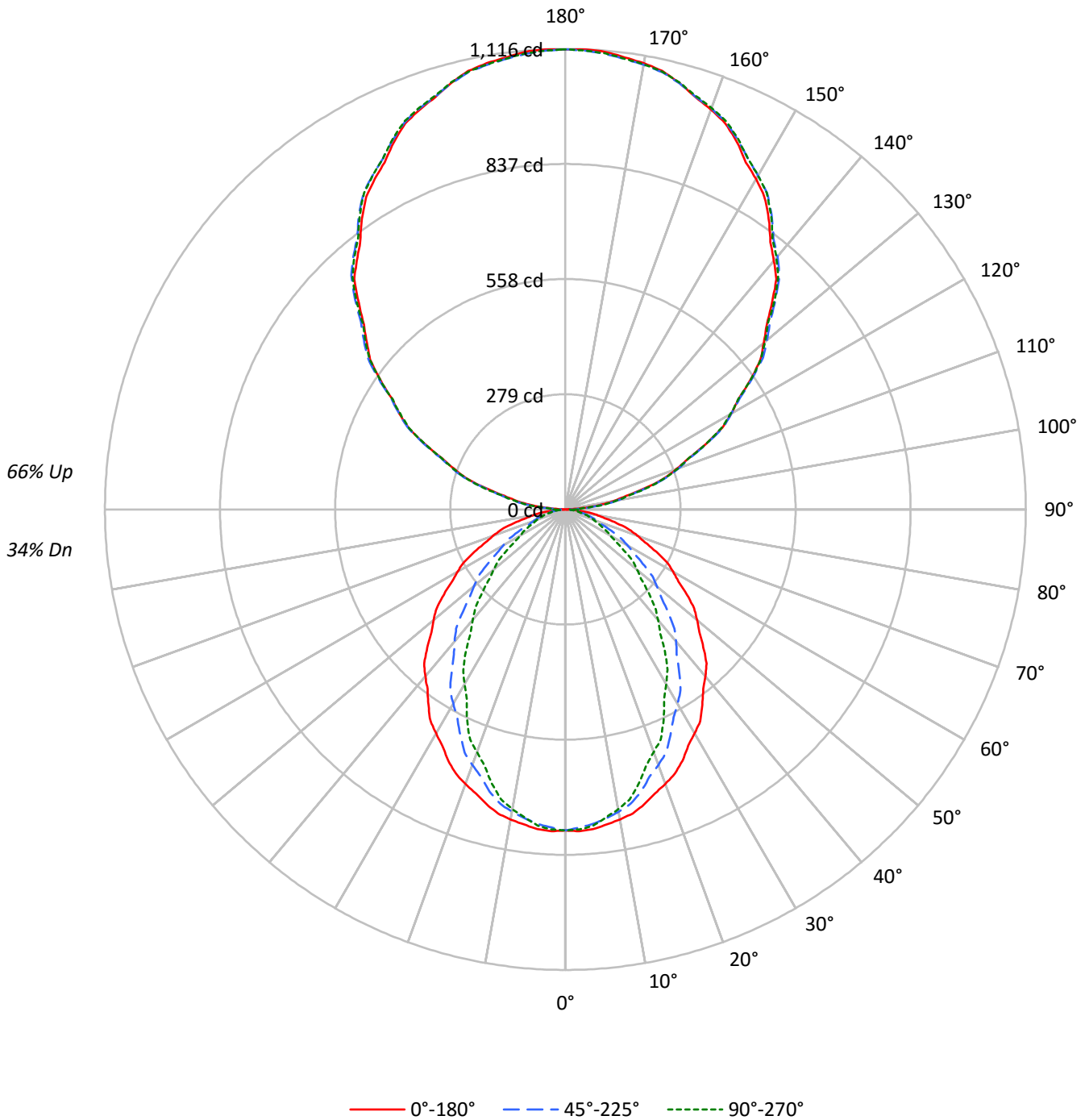
Lumens per Lamp: N/A  
Luminaire Lumens: 4721.0 lumens  
Efficiency: N/A  
Efficacy: 106.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 44.5  
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



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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	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	94	90	87	83	85	82	79	76	66	63	62	51	49	48	37	36	36	29				
2	86	79	73	69	78	72	67	63	58	54	51	45	43	41	33	32	30	25				
3	79	70	63	57	71	63	58	53	51	47	44	40	37	35	29	28	26	22				
4	72	62	54	49	65	56	50	45	46	41	37	36	33	30	27	25	23	19				
5	66	55	48	42	60	50	44	39	41	36	32	32	29	26	24	22	20	17				
6	61	50	42	36	55	45	39	34	37	32	28	29	26	23	22	20	18	15				
7	57	45	37	32	51	41	34	30	34	29	25	27	23	20	20	18	16	13				
8	52	41	33	28	47	37	31	26	31	26	22	24	21	18	19	16	14	12				
9	49	37	30	25	44	34	28	23	28	23	20	22	19	16	17	15	13	11				
10	46	34	27	22	41	31	25	21	26	21	18	21	17	15	16	14	12	10				

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

	0°	45°	90°
0°	12558	12558	12558
5°	12606	12402	12470
10°	12511	12198	12095
15°	12366	11836	11497
20°	12167	11320	10753
25°	11965	10735	10033
30°	11680	10133	9107
35°	11404	9477	8296
40°	11126	8800	7358
45°	10803	8035	6510
50°	10467	7267	5674
55°	10125	6441	4873
60°	9726	5570	4046
65°	9280	4676	3683
70°	8738	3852	3389
75°	8079	3512	3163
80°	7132	3133	2882
85°	5613	2482	2482



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.8	1.5
10°-20°	199.9	4.2
20°-30°	280.7	5.9
30°-40°	306.1	6.5
40°-50°	281.5	6.0
50°-60°	221.1	4.7
60°-70°	144.1	3.1
70°-80°	74.3	1.6
80°-90°	23.7	0.5
90°-100°	70.6	1.5
100°-110°	219.4	4.6
110°-120°	375.0	7.9
120°-130°	493.1	10.4
130°-140°	553.4	11.7
140°-150°	542.7	11.5
150°-160°	455.2	9.6
160°-170°	301.9	6.4
170°-180°	105.5	2.2
0°-30°	553.4	11.7
0°-40°	859.6	18.2
0°-60°	1362.1	28.9
0°-90°	1604.3	34.0
90°-120°	665.0	14.1
90°-150°	2254.1	47.7
90°-180°	3117.0	66.0
0°-180°	4721.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	778	778	778	778	778	
5°	778	774	765	771	769	74
15°	740	731	708	695	688	208
25°	672	648	603	575	563	309
35°	579	541	481	438	421	362
45°	473	424	352	304	285	365
55°	360	304	229	188	173	321
65°	243	186	122	100	96	241
75°	130	82	56	52	51	137
85°	30	16	13	13	13	36
90°	1	13	33	31	32	4
95°	49	58	60	60	58	56
105°	202	205	207	209	209	214
115°	376	381	380	379	376	372
125°	547	555	553	550	549	489
135°	708	718	720	719	717	547
145°	860	866	872	873	869	537
155°	983	986	988	993	990	452
165°	1070	1069	1069	1074	1070	301
175°	1113	1110	1108	1114	1109	106
180°	1115	1115	1115	1115	1115	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	777.8	777.8	777.8	777.8	777.8	777.8	777.8	777.8	777.8	777.8	777.8
2.5°	780.6	780.0	779.4	778.7	778.2	777.1	775.8	774.4	773.0	771.7	772.9
5°	777.8	777.0	776.3	775.5	774.7	773.3	771.3	769.2	767.2	765.2	766.6
7.5°	769.8	768.8	767.9	766.9	765.9	764.2	761.9	759.5	757.1	754.8	755.2
10°	763.1	762.0	760.8	759.8	758.7	756.6	753.5	750.3	747.2	744.0	743.6
12.5°	754.6	753.3	751.9	750.5	749.2	746.6	742.5	738.6	734.5	730.6	729.7
15°	739.8	738.1	736.4	734.6	732.9	729.4	724.1	718.8	713.5	708.1	705.2
17.5°	721.7	719.1	716.4	713.8	711.1	706.4	699.6	692.8	686.0	679.1	675.6
20°	708.1	705.0	701.9	698.8	695.6	690.1	682.3	674.5	666.7	658.8	655.0
22.5°	693.5	690.0	686.5	683.0	679.5	673.4	664.5	655.6	646.9	638.0	633.0
25°	671.6	666.6	661.6	656.5	651.5	643.9	633.5	623.2	612.8	602.6	596.2
27.5°	645.1	639.6	634.1	628.8	623.3	614.7	603.1	591.4	579.9	568.2	560.7
30°	626.5	620.6	614.6	608.7	602.8	593.5	581.0	568.4	555.9	543.5	535.5
32.5°	608.5	601.5	594.6	587.7	580.7	570.8	558.1	545.3	532.5	519.8	510.7
35°	578.6	570.6	562.7	554.7	546.7	535.8	522.1	508.3	494.6	480.8	470.9
37.5°	548.7	540.0	531.2	522.5	513.8	502.0	487.4	472.7	458.0	443.4	432.4
40°	527.9	518.6	509.2	499.8	490.4	478.2	463.0	447.8	432.6	417.5	406.3
42.5°	506.5	496.6	486.7	476.9	467.0	454.2	438.6	422.8	407.2	391.5	380.0
45°	473.1	462.6	452.0	441.6	431.1	417.6	401.2	384.8	368.3	351.9	340.8
47.5°	440.4	429.2	418.2	407.1	396.0	381.9	365.0	348.0	331.0	314.1	303.0
50°	416.7	405.6	394.5	383.4	372.3	358.2	340.9	323.8	306.5	289.3	278.5
52.5°	393.6	382.0	370.4	358.8	347.2	333.0	316.1	299.4	282.5	265.7	255.2
55°	359.7	347.5	335.3	323.1	310.9	296.3	279.5	262.6	245.6	228.8	219.4
57.5°	324.9	312.5	299.9	287.4	274.8	260.5	244.3	228.0	211.8	195.6	186.9
60°	301.2	288.8	276.3	263.7	251.2	237.0	220.8	204.7	188.6	172.5	164.5
62.5°	278.1	265.7	253.2	240.6	228.1	214.2	198.9	183.5	168.1	152.8	145.2
65°	242.9	230.2	217.5	204.8	192.2	178.8	164.8	150.6	136.6	122.4	117.2
67.5°	208.8	196.2	183.6	171.1	158.4	145.8	133.2	120.6	107.8	95.2	92.7
70°	185.1	173.0	160.7	148.5	136.3	124.8	114.0	103.2	92.5	81.6	80.1
72.5°	162.6	150.9	139.2	127.5	115.8	105.7	97.0	88.3	79.6	71.0	69.7
75°	129.5	118.6	107.6	96.7	85.7	77.6	72.3	66.9	61.6	56.3	55.2
77.5°	97.0	87.4	77.8	68.1	58.6	52.5	50.0	47.4	44.8	42.2	41.6
80°	76.7	68.7	60.8	52.8	44.8	40.1	38.5	36.9	35.3	33.7	33.2
82.5°	58.2	51.9	45.7	39.5	33.3	29.6	28.6	27.4	26.4	25.4	25.0
85°	30.3	27.0	23.7	20.5	17.2	15.3	14.8	14.3	13.9	13.4	13.4
87.5°	9.2	8.7	8.2	7.7	7.2	7.4	8.3	9.2	10.2	11.1	10.8
90°	0.9	3.5	5.9	8.5	10.9	14.5	19.1	23.8	28.3	32.9	32.5
92.5°	16.8	18.6	20.5	22.2	24.1	25.5	26.7	27.7	28.8	29.9	30.0
95°	48.9	51.0	53.1	55.1	57.3	58.5	58.9	59.4	59.8	60.2	60.2
97.5°	89.4	91.2	93.0	94.9	96.7	98.0	98.9	99.6	100.4	101.2	101.2
100°	119.4	121.1	122.8	124.5	126.1	127.3	127.9	128.6	129.2	129.8	129.8
102.5°	151.1	152.4	153.7	155.0	156.4	157.5	158.3	159.1	159.9	160.7	160.8
105°	202.3	202.8	203.5	204.2	204.7	205.3	205.7	206.1	206.5	206.9	207.4
107.5°	253.7	254.7	255.6	256.6	257.5	257.9	257.9	257.9	257.9	257.9	258.1
110°	286.9	288.1	289.4	290.7	291.9	292.6	292.6	292.6	292.6	292.6	292.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	323.0	324.2	325.6	326.8	328.0	328.6	328.4	328.2	328.1	327.9	327.4
115°	376.3	377.5	378.7	380.0	381.3	381.6	381.3	380.9	380.4	380.0	379.8
117.5°	429.3	430.9	432.6	434.3	436.0	436.2	435.1	433.9	432.7	431.6	431.0
120°	464.7	466.4	468.0	469.7	471.4	471.4	469.7	468.0	466.4	464.7	464.7
122.5°	497.0	499.0	501.1	503.0	505.0	505.5	504.3	503.1	502.0	500.8	500.3
125°	547.4	549.3	551.2	553.1	555.0	555.6	555.0	554.3	553.7	553.1	552.4
127.5°	596.5	598.9	601.3	603.7	606.1	606.9	606.1	605.4	604.6	603.9	603.1
130°	627.4	630.1	632.8	635.6	638.3	639.4	638.9	638.6	638.2	637.7	637.3
132.5°	662.0	664.2	666.5	668.6	670.9	672.0	672.1	672.2	672.2	672.3	671.5
135°	708.3	710.6	712.8	715.2	717.5	718.9	719.3	719.6	720.1	720.5	720.3
137.5°	757.1	758.8	760.7	762.6	764.5	765.7	766.3	766.9	767.4	767.9	767.8
140°	786.4	788.2	790.1	792.0	793.9	795.3	796.4	797.4	798.5	799.6	799.6
142.5°	816.4	818.3	820.2	822.1	824.0	825.3	826.0	826.7	827.4	828.1	828.3
145°	859.7	861.2	862.6	864.1	865.5	867.0	868.2	869.4	870.7	871.9	872.1
147.5°	898.2	900.0	901.8	903.5	905.3	906.6	907.5	908.2	909.1	909.9	910.4
150°	924.6	925.9	927.1	928.4	929.6	930.7	931.5	932.4	933.2	934.1	934.6
152.5°	947.9	949.2	950.5	951.7	953.0	954.1	955.1	956.1	957.1	958.1	958.9
155°	983.0	983.5	984.2	984.9	985.4	986.1	986.7	987.3	988.0	988.5	989.7
157.5°	1012.9	1013.2	1013.7	1014.1	1014.6	1014.9	1015.3	1015.7	1016.1	1016.4	1017.9
160°	1031.0	1031.3	1031.7	1032.2	1032.6	1032.9	1033.1	1033.3	1033.5	1033.7	1035.0
162.5°	1047.4	1047.5	1047.6	1047.7	1047.8	1047.9	1048.2	1048.4	1048.6	1048.8	1050.2
165°	1069.5	1069.3	1069.0	1068.8	1068.7	1068.6	1068.6	1068.6	1068.6	1068.6	1070.0
167.5°	1087.9	1087.3	1086.7	1086.0	1085.4	1085.1	1085.1	1085.0	1085.0	1084.9	1086.4
170°	1097.7	1097.0	1096.5	1095.8	1095.1	1094.8	1094.6	1094.4	1094.1	1093.9	1095.4
172.5°	1104.5	1103.8	1103.2	1102.6	1101.9	1101.5	1101.4	1101.1	1100.9	1100.7	1102.2
175°	1112.8	1112.1	1111.4	1110.9	1110.2	1109.7	1109.3	1108.9	1108.4	1108.1	1109.5
177.5°	1116.2	1115.6	1115.1	1114.7	1114.1	1113.7	1113.3	1113.0	1112.7	1112.4	1113.3
180°	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	777.8	777.8	777.8	777.8	777.8	777.8	777.8	777.8
2.5°	774.1	775.4	776.7	777.1	776.9	776.7	776.4	776.2
5°	768.0	769.4	770.8	771.3	770.8	770.3	769.9	769.4
7.5°	755.5	755.9	756.4	756.2	755.4	754.5	753.8	752.9
10°	743.1	742.6	742.2	741.5	740.6	739.6	738.7	737.7
12.5°	728.9	728.0	727.2	725.9	724.3	722.8	721.2	719.7
15°	702.2	699.3	696.3	694.0	692.4	690.9	689.3	687.8
17.5°	672.0	668.5	665.0	661.9	659.2	656.5	653.8	651.1
20°	651.0	647.1	643.2	639.5	636.1	632.6	629.2	625.8
22.5°	627.9	622.9	617.9	614.1	611.5	609.0	606.4	603.8
25°	589.7	583.3	576.9	572.5	570.1	567.8	565.5	563.2
27.5°	553.3	545.7	538.3	532.7	529.0	525.3	521.5	517.8
30°	527.4	519.5	511.5	505.4	501.1	497.0	492.8	488.5
32.5°	501.5	492.5	483.3	476.8	472.9	468.9	464.9	460.9
35°	461.1	451.2	441.4	434.7	431.3	427.8	424.4	420.9
37.5°	421.6	410.8	399.9	392.5	388.6	384.7	380.7	376.7
40°	395.2	384.1	373.0	365.4	361.4	357.3	353.2	349.1
42.5°	368.5	357.0	345.6	337.9	333.9	330.0	326.0	322.1
45°	329.7	318.7	307.6	300.1	296.3	292.6	288.8	285.1
47.5°	292.0	281.0	269.9	262.7	259.3	255.9	252.4	249.0
50°	267.7	256.9	246.1	239.1	235.8	232.5	229.2	225.9
52.5°	244.8	234.4	223.9	217.3	214.2	211.2	208.1	205.1
55°	210.0	200.6	191.2	185.0	182.1	179.1	176.2	173.1
57.5°	178.3	169.8	161.2	155.6	153.1	150.6	148.1	145.5
60°	156.5	148.5	140.5	135.3	132.8	130.3	127.8	125.3
62.5°	137.5	130.0	122.3	117.8	116.3	114.8	113.3	111.8
65°	111.9	106.5	101.2	98.3	97.8	97.4	96.9	96.4
67.5°	90.3	87.8	85.4	84.0	83.4	82.9	82.5	81.9
70°	78.5	77.0	75.4	74.3	73.7	73.0	72.4	71.8
72.5°	68.3	67.0	65.7	64.8	64.5	64.1	63.7	63.3
75°	54.1	53.1	51.9	51.3	51.2	51.0	50.8	50.7
77.5°	41.0	40.3	39.8	39.3	39.0	38.8	38.5	38.3
80°	32.5	32.0	31.3	31.0	31.0	31.0	31.0	31.0
82.5°	24.6	24.2	23.8	23.7	23.7	23.7	23.7	23.7
85°	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4
87.5°	10.7	10.5	10.3	10.2	10.2	10.3	10.3	10.4
90°	32.0	31.7	31.3	31.1	31.4	31.6	31.8	32.0
92.5°	30.1	30.2	30.3	30.3	30.3	30.3	30.4	30.4
95°	60.2	60.2	60.2	59.9	59.6	59.2	58.7	58.3
97.5°	101.2	101.2	101.2	101.2	101.1	101.1	101.0	101.0
100°	129.8	129.8	129.8	129.7	129.5	129.3	129.0	128.8
102.5°	161.0	161.2	161.4	161.3	161.1	160.9	160.7	160.5
105°	207.7	208.2	208.6	208.8	208.8	208.8	208.8	208.8
107.5°	258.3	258.4	258.5	258.2	257.2	256.3	255.3	254.3
110°	292.6	292.6	292.6	292.2	291.6	291.0	290.3	289.7





TEST NUMBER: P331667-830

CATALOG NUMBER: SA2XXRDIP-C485D925U830-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	326.9	326.4	325.9	325.4	325.0	324.5	324.0	323.6
115°	379.6	379.4	379.2	378.7	378.1	377.5	376.8	376.3
117.5°	430.6	430.1	429.5	429.0	428.4	427.7	427.1	426.5
120°	464.7	464.7	464.7	464.4	463.7	463.1	462.5	461.8
122.5°	499.7	499.3	498.8	498.3	497.9	497.4	496.9	496.4
125°	551.9	551.2	550.5	550.2	550.0	549.7	549.5	549.3
127.5°	602.4	601.6	600.9	600.1	599.5	598.8	598.1	597.5
130°	636.9	636.5	636.0	635.5	634.6	633.8	632.9	632.1
132.5°	670.5	669.6	668.6	667.9	667.2	666.6	665.9	665.2
135°	720.1	719.9	719.6	719.3	718.6	718.0	717.4	716.7
137.5°	767.6	767.4	767.2	766.8	765.9	765.1	764.2	763.4
140°	799.6	799.6	799.6	799.1	798.2	797.4	796.6	795.8
142.5°	828.5	828.6	828.8	828.5	827.6	826.8	826.0	825.1
145°	872.3	872.6	872.8	872.5	871.7	870.8	870.0	869.1
147.5°	910.9	911.3	911.8	911.6	910.9	910.0	909.3	908.4
150°	935.3	935.9	936.5	936.5	935.9	935.3	934.6	934.1
152.5°	959.7	960.5	961.3	961.3	960.5	959.7	958.9	958.1
155°	990.7	991.7	992.8	993.0	992.3	991.7	991.1	990.4
157.5°	1019.3	1020.7	1022.1	1022.3	1021.3	1020.3	1019.3	1018.3
160°	1036.2	1037.5	1038.8	1039.0	1038.1	1037.3	1036.4	1035.6
162.5°	1051.6	1053.0	1054.4	1054.7	1053.7	1052.6	1051.7	1050.7
165°	1071.5	1072.9	1074.4	1074.6	1073.6	1072.5	1071.5	1070.4
167.5°	1087.8	1089.3	1090.7	1090.9	1089.9	1088.7	1087.7	1086.6
170°	1096.8	1098.3	1099.8	1099.9	1098.6	1097.4	1096.1	1094.9
172.5°	1103.6	1105.1	1106.5	1106.6	1105.4	1104.2	1102.9	1101.6
175°	1111.0	1112.4	1113.9	1114.0	1112.8	1111.4	1110.2	1109.0
177.5°	1114.4	1115.4	1116.3	1116.3	1115.4	1114.4	1113.3	1112.4
180°	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7	1114.7

(END OF REPORT)