

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: P331315-935

Luminaire Tested: **SA2XXDIP-C485D925U935-4F0-1E-UDD-D**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331315-935  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA2XXDIP-C485D925U935-4F0-1E-UDD-D  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 925 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

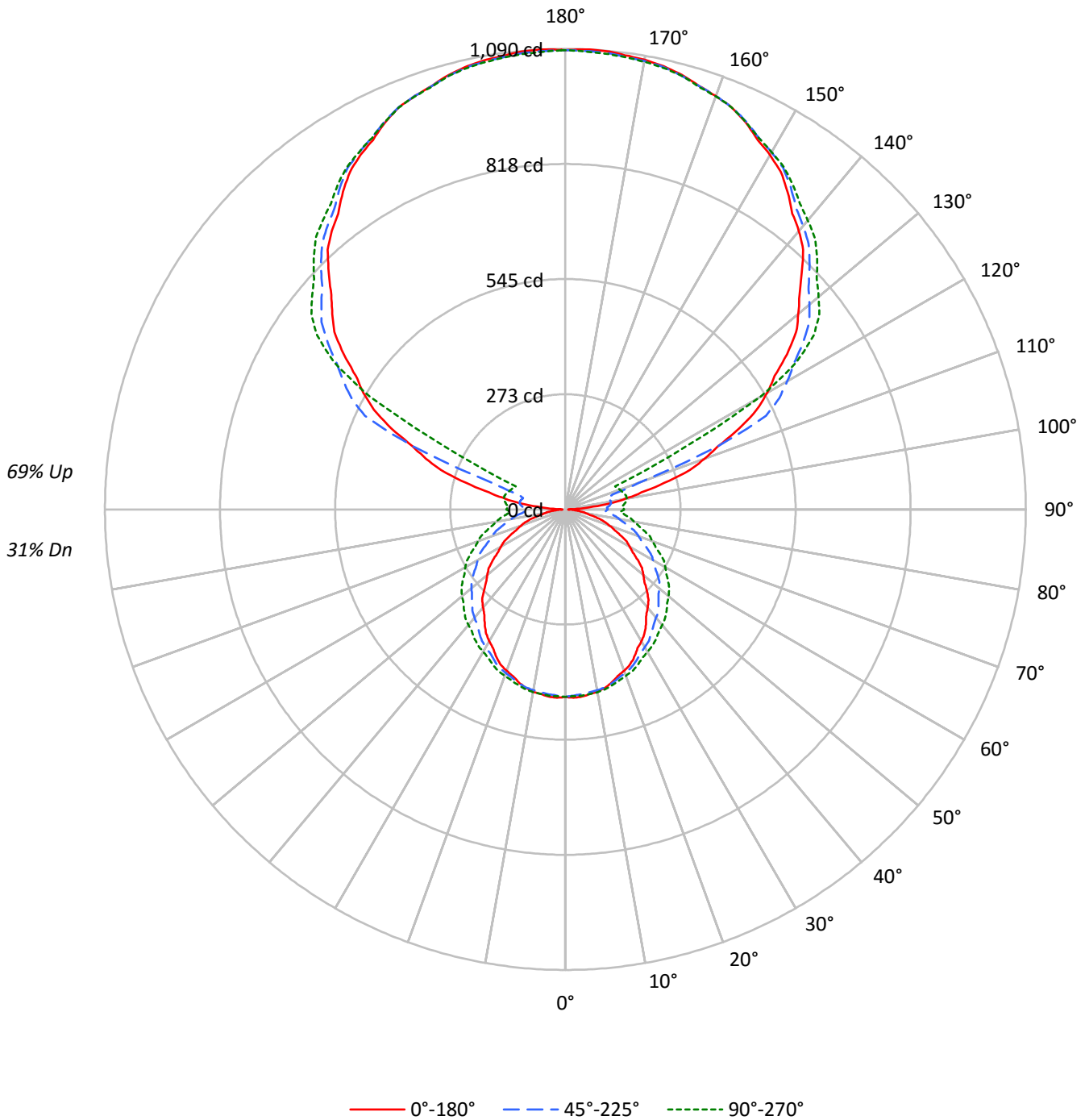
Lumens per Lamp: N/A  
Luminaire Lumens: 4880.1 lumens  
Efficiency: N/A  
Efficacy: 109.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')  
CIE Type: Semi-Indirect

Input Watts (W): 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



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### Luminous Intensity Polar Plot





TEST NUMBER: P331315-935

CATALOG NUMBER: SA2XXDIP-C485D925U935-4F0-1E-UDD-D

**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	92	92	92	92	73	73	73	55	55	55	39	39	39	31	31	31	31	
1	93	88	84	80	83	79	76	72	62	60	58	47	45	44	33	32	31	24	24	24	24	
2	84	76	70	65	75	68	63	59	54	50	47	41	38	36	28	26	25	19	19	19	19	
3	76	67	59	53	68	60	54	48	47	43	39	35	32	30	25	23	21	16	16	16	16	
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	22	20	18	13	13	13	13	
5	64	52	44	38	57	47	40	35	37	32	28	28	24	22	19	17	15	12	12	12	12	
6	58	46	38	33	52	42	35	30	33	28	24	25	21	19	18	15	13	10	10	10	10	
7	54	42	34	28	48	38	31	26	30	25	21	23	19	16	16	14	12	9	9	9	9	
8	50	38	30	25	45	34	27	23	27	22	19	21	17	14	15	12	10	8	8	8	8	
9	46	34	27	22	41	31	25	20	25	20	16	19	15	13	13	11	9	7	7	7	7	
10	43	31	24	19	39	28	22	18	23	18	15	17	14	12	12	10	8	6	6	6	6	

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

	0°	45°	90°
0°	7164	7164	7164
5°	7199	6896	6870
10°	7153	6692	6617
15°	7055	6477	6350
20°	6930	6245	6094
25°	6807	6022	5862
30°	6634	5793	5628
35°	6458	5572	5464
40°	6275	5384	5299
45°	6100	5215	5159
50°	5912	5062	5019
55°	5713	4898	4878
60°	5473	4730	4729
65°	5222	4530	4552
70°	4938	4315	4361
75°	4578	4106	4186
80°	4008	3889	4005
85°	3471	3705	3868



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.0	0.9
10°-20°	120.6	2.5
20°-30°	182.7	3.7
30°-40°	222.5	4.6
40°-50°	239.4	4.9
50°-60°	232.5	4.8
60°-70°	203.0	4.2
70°-80°	156.3	3.2
80°-90°	107.6	2.2
90°-100°	108.5	2.2
100°-110°	185.7	3.8
110°-120°	390.2	8.0
120°-130°	606.0	12.4
130°-140°	632.0	13.0
140°-150°	581.2	11.9
150°-160°	466.2	9.6
160°-170°	300.4	6.2
170°-180°	103.4	2.1
0°-30°	345.3	7.1
0°-40°	567.8	11.6
0°-60°	1039.7	21.3
0°-90°	1506.5	30.9
90°-120°	684.4	14.0
90°-150°	2503.6	51.3
90°-180°	3374.0	69.1
0°-180°	4880.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	444	444	444	444	444	
5°	445	443	439	443	442	42
15°	424	426	426	431	431	119
25°	386	390	396	404	406	177
35°	332	343	356	369	374	208
45°	273	290	312	332	339	210
55°	209	233	266	288	297	187
65°	143	175	212	238	247	142
75°	79	115	156	183	192	84
85°	23	63	104	130	140	25
90°	7	53	101	129	140	7
95°	56	63	105	132	140	67
105°	242	272	103	133	145	259
115°	455	477	524	195	129	447
125°	641	652	686	708	717	571
135°	792	804	818	838	843	611
145°	918	918	930	939	939	574
155°	1010	1004	1013	1017	1011	465
165°	1065	1060	1062	1067	1062	301
175°	1089	1084	1085	1090	1083	104
180°	1087	1087	1087	1087	1087	



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CATALOG NUMBER: SA2XXDIP-C485D925U935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	443.7	443.7	443.7	443.7	443.7	443.7	443.7	443.7	443.7	443.7	443.7
2.5°	446.3	445.9	445.6	445.2	444.9	444.3	443.5	442.7	442.0	441.1	441.7
5°	445.0	444.5	444.1	443.7	443.2	442.6	441.8	440.9	440.1	439.2	440.1
7.5°	441.0	440.7	440.4	440.1	439.9	439.4	438.7	438.1	437.4	436.7	437.7
10°	437.9	437.6	437.3	437.0	436.8	436.4	436.0	435.6	435.1	434.7	435.8
12.5°	432.7	432.8	432.9	432.9	433.0	432.8	432.6	432.2	431.9	431.6	432.7
15°	424.4	424.6	425.0	425.2	425.5	425.7	425.7	425.7	425.7	425.7	427.0
17.5°	413.6	414.2	414.8	415.4	416.0	416.6	417.0	417.4	417.9	418.4	419.7
20°	406.4	407.1	407.9	408.5	409.2	409.9	410.4	411.0	411.6	412.2	413.7
22.5°	398.6	399.5	400.4	401.1	402.0	402.8	403.6	404.4	405.2	406.0	407.6
25°	385.8	386.8	387.8	388.8	389.8	391.0	392.3	393.6	394.9	396.1	397.8
27.5°	370.4	372.0	373.7	375.3	376.9	378.5	380.0	381.5	383.0	384.5	386.7
30°	360.1	362.0	363.8	365.7	367.6	369.4	371.3	373.1	375.0	376.8	379.1
32.5°	348.8	350.9	352.9	355.1	357.1	359.3	361.4	363.7	365.8	368.1	370.7
35°	332.4	334.8	337.3	339.8	342.2	344.7	347.4	350.2	352.8	355.6	358.7
37.5°	314.7	317.5	320.3	323.1	325.9	329.1	332.6	336.0	339.6	343.1	346.6
40°	302.9	306.0	309.2	312.3	315.5	318.9	322.8	326.7	330.5	334.4	338.1
42.5°	291.5	294.7	297.8	301.0	304.1	307.9	312.4	316.8	321.2	325.6	329.7
45°	272.7	276.5	280.3	284.2	288.1	292.5	297.5	302.5	307.5	312.5	316.9
47.5°	254.0	258.2	262.4	266.6	270.8	275.9	281.7	287.6	293.4	299.3	303.9
50°	241.2	245.6	250.0	254.4	258.8	264.2	270.7	277.2	283.6	290.0	294.9
52.5°	228.8	233.4	238.1	242.8	247.5	253.1	259.9	266.7	273.5	280.3	285.2
55°	209.0	214.1	219.3	224.4	229.5	235.8	243.3	250.7	258.1	265.5	270.7
57.5°	189.4	195.3	201.0	206.8	212.7	219.3	226.9	234.5	242.0	249.6	255.2
60°	175.6	181.7	187.9	194.0	200.1	207.2	215.4	223.5	231.7	239.9	245.3
62.5°	163.2	169.5	176.0	182.4	188.7	196.0	204.1	212.2	220.4	228.5	234.3
65°	142.8	149.7	156.8	163.8	170.7	178.5	186.9	195.4	203.8	212.2	218.1
67.5°	124.0	131.3	138.6	145.9	153.3	161.2	169.9	178.5	187.1	195.7	201.6
70°	110.6	118.0	125.4	132.9	140.3	148.4	157.3	166.2	175.0	183.9	190.0
72.5°	98.2	105.9	113.6	121.2	128.9	137.2	146.2	155.2	164.1	173.1	179.2
75°	79.1	87.1	95.1	103.1	111.1	119.7	128.8	137.9	147.1	156.3	162.4
77.5°	60.6	69.0	77.3	85.7	94.1	102.9	112.2	121.5	130.8	140.1	146.2
80°	48.2	56.9	65.7	74.4	83.1	92.1	101.4	110.6	119.9	129.2	135.3
82.5°	38.0	46.6	55.1	63.7	72.3	81.4	90.7	100.1	109.5	119.0	124.9
85°	23.2	32.0	40.9	49.8	58.5	67.6	76.7	85.8	95.1	104.2	110.2
87.5°	12.7	21.7	30.6	39.4	48.4	57.5	67.0	76.4	85.8	95.2	101.3
90°	7.2	17.4	27.6	37.9	48.0	58.5	69.0	79.6	90.1	100.6	107.2
92.5°	21.8	29.4	36.9	44.4	52.0	60.5	70.0	79.5	89.0	98.5	104.5
95°	56.2	57.2	58.1	59.1	60.0	65.4	75.3	85.0	94.8	104.6	110.9
97.5°	105.9	95.7	85.4	75.1	64.8	65.2	76.3	87.3	98.4	109.4	115.5
100°	143.7	125.0	106.4	87.7	69.1	65.3	76.2	87.2	98.2	109.1	115.8
102.5°	184.7	184.4	184.3	184.0	183.7	175.0	158.0	140.9	123.9	106.8	113.7
105°	242.3	251.7	261.1	270.4	279.8	264.3	224.1	183.8	143.5	103.2	110.2
107.5°	308.7	316.2	323.7	331.3	338.8	317.5	267.4	217.4	167.3	117.2	120.0
110°	350.9	357.5	363.9	370.5	377.0	358.5	315.0	271.6	228.1	184.5	171.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	391.2	396.8	402.5	408.1	413.8	413.7	407.9	402.1	396.2	390.5	331.2
115°	454.7	459.3	463.8	468.4	472.9	480.5	491.4	502.1	513.0	523.7	447.1
117.5°	510.8	515.2	519.5	523.9	528.2	534.9	543.8	552.8	561.7	570.7	555.3
120°	552.3	555.6	558.8	562.0	565.2	571.2	580.1	588.9	597.8	606.6	612.7
122.5°	587.6	590.6	593.6	596.6	599.6	605.5	614.2	623.0	631.9	640.7	645.8
125°	640.6	642.8	645.1	647.4	649.7	654.8	662.6	670.5	678.5	686.3	691.4
127.5°	689.1	691.6	694.0	696.3	698.7	702.9	709.1	715.3	721.4	727.6	733.0
130°	720.0	722.6	725.3	728.0	730.6	734.4	739.3	744.2	749.2	754.1	759.5
132.5°	751.5	753.7	756.0	758.2	760.4	763.6	767.8	772.1	776.4	780.6	785.6
135°	791.7	794.5	797.3	800.1	802.9	805.8	808.8	811.8	814.8	817.8	822.5
137.5°	833.1	835.0	836.9	838.9	840.8	842.9	845.3	847.7	850.2	852.6	857.0
140°	860.1	861.3	862.6	863.8	865.1	866.9	869.1	871.2	873.5	875.7	879.6
142.5°	882.8	883.9	885.0	886.1	887.3	888.9	891.1	893.5	895.7	897.9	901.2
145°	917.7	917.5	917.3	917.1	917.0	918.3	921.4	924.3	927.3	930.2	932.3
147.5°	948.6	948.0	947.4	946.7	946.0	947.1	950.0	953.0	956.0	958.9	959.9
150°	968.8	967.6	966.3	965.1	963.9	964.7	967.5	970.3	973.1	975.9	976.9
152.5°	985.8	984.4	983.0	981.7	980.3	980.9	983.6	986.3	988.9	991.6	992.6
155°	1010.5	1008.9	1007.3	1005.7	1004.2	1004.4	1006.5	1008.7	1010.7	1012.8	1013.8
157.5°	1029.8	1028.5	1027.2	1025.8	1024.5	1024.6	1026.1	1027.5	1029.0	1030.4	1031.7
160°	1041.1	1040.1	1039.1	1037.9	1036.9	1036.9	1037.9	1039.1	1040.1	1041.1	1042.2
162.5°	1051.2	1050.2	1049.1	1048.0	1047.0	1046.9	1047.8	1048.7	1049.6	1050.6	1051.7
165°	1064.7	1063.7	1062.6	1061.5	1060.5	1060.2	1060.8	1061.3	1061.9	1062.4	1063.6
167.5°	1074.8	1073.8	1072.7	1071.6	1070.6	1070.3	1070.8	1071.3	1071.8	1072.3	1073.5
170°	1080.5	1079.3	1078.3	1077.3	1076.2	1075.9	1076.2	1076.6	1076.9	1077.3	1078.5
172.5°	1084.2	1083.1	1082.1	1081.1	1080.0	1079.7	1080.0	1080.4	1080.7	1081.1	1082.3
175°	1089.1	1087.9	1086.7	1085.4	1084.2	1083.7	1084.1	1084.4	1084.8	1085.1	1086.4
177.5°	1089.9	1088.9	1088.0	1086.9	1086.0	1085.5	1085.7	1085.8	1086.0	1086.1	1087.1
180°	1086.8	1086.8	1086.8	1086.8	1086.8	1086.8	1086.8	1086.8	1086.8	1086.8	1086.8



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	443.7	443.7	443.7	443.7	443.7	443.7	443.7	443.7
2.5°	442.3	442.8	443.4	443.6	443.3	443.2	442.9	442.6
5°	440.9	441.8	442.6	443.0	442.8	442.7	442.6	442.4
7.5°	438.8	439.8	440.8	441.3	441.2	441.0	440.8	440.7
10°	437.0	438.1	439.3	439.8	439.6	439.5	439.4	439.2
12.5°	433.9	435.1	436.2	436.7	436.5	436.4	436.3	436.1
15°	428.3	429.6	430.8	431.4	431.3	431.1	430.9	430.8
17.5°	421.0	422.4	423.7	424.4	424.4	424.4	424.4	424.4
20°	415.3	416.9	418.4	419.2	419.2	419.2	419.2	419.2
22.5°	409.1	410.7	412.3	413.2	413.5	413.6	413.9	414.1
25°	399.5	401.2	402.9	404.1	404.5	404.9	405.4	405.8
27.5°	388.9	391.1	393.2	394.4	394.8	395.1	395.4	395.7
30°	381.4	383.7	386.0	387.3	387.7	388.1	388.6	389.0
32.5°	373.3	375.9	378.6	380.3	381.1	381.9	382.6	383.4
35°	361.9	365.1	368.2	370.2	371.3	372.2	373.2	374.3
37.5°	350.1	353.6	357.1	359.3	360.4	361.4	362.5	363.6
40°	341.8	345.5	349.2	351.7	353.0	354.3	355.6	356.9
42.5°	333.7	337.8	341.8	344.6	345.8	347.1	348.4	349.7
45°	321.4	325.8	330.2	333.1	334.6	336.0	337.4	338.9
47.5°	308.5	313.1	317.8	320.9	322.4	324.0	325.6	327.2
50°	299.7	304.5	309.4	312.6	314.3	315.8	317.4	318.9
52.5°	290.2	295.2	300.1	303.4	305.1	306.9	308.5	310.2
55°	275.9	281.0	286.1	289.6	291.5	293.3	295.2	297.0
57.5°	260.7	266.2	271.8	275.5	277.4	279.3	281.2	283.1
60°	250.7	256.1	261.6	265.3	267.3	269.3	271.3	273.3
62.5°	240.0	245.8	251.6	255.5	257.4	259.2	261.1	263.0
65°	223.9	229.8	235.7	239.5	241.3	243.2	245.0	246.9
67.5°	207.6	213.4	219.4	223.3	225.2	227.2	229.2	231.1
70°	196.2	202.3	208.4	212.4	214.1	215.9	217.6	219.3
72.5°	185.2	191.2	197.3	201.3	203.3	205.3	207.4	209.5
75°	168.6	174.7	180.8	184.9	186.7	188.6	190.4	192.3
77.5°	152.3	158.4	164.5	168.6	170.6	172.5	174.6	176.6
80°	141.3	147.2	153.3	157.2	159.3	161.3	163.2	165.2
82.5°	131.0	137.0	142.9	146.9	148.8	150.7	152.6	154.5
85°	116.1	122.2	128.2	132.2	134.1	136.2	138.2	140.2
87.5°	107.2	113.2	119.2	123.2	125.1	127.0	128.9	130.8
90°	113.8	120.4	127.0	131.3	133.4	135.4	137.5	139.6
92.5°	110.6	116.7	122.7	126.7	128.6	130.5	132.5	134.4
95°	117.2	123.6	129.8	133.7	135.3	136.8	138.4	139.9
97.5°	121.4	127.4	133.4	137.3	139.2	141.1	143.0	144.9
100°	122.5	129.2	135.9	140.2	142.1	144.0	145.9	147.8
102.5°	120.8	127.8	134.7	139.3	141.3	143.4	145.4	147.5
105°	117.1	124.1	131.0	135.5	137.8	140.1	142.4	144.6
107.5°	122.9	125.7	128.5	131.1	133.4	135.7	137.9	140.2
110°	158.8	145.9	132.9	127.6	129.9	132.2	134.4	136.7





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CATALOG NUMBER: SA2XXDIP-C485D925U935-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	272.1	212.9	153.8	125.2	127.3	129.5	131.6	133.7
115°	370.5	293.9	217.3	173.5	162.5	151.4	140.4	129.4
117.5°	540.0	524.7	509.4	481.7	441.9	401.9	362.1	322.2
120°	618.8	624.9	631.0	623.0	601.1	579.0	557.0	534.9
122.5°	650.9	656.1	661.2	662.2	658.9	655.7	652.5	649.2
125°	696.5	701.5	706.6	710.1	711.9	713.7	715.5	717.3
127.5°	738.3	743.6	748.9	752.3	753.6	755.0	756.4	757.7
130°	764.8	770.2	775.5	778.7	779.6	780.6	781.5	782.6
132.5°	790.5	795.5	800.4	803.4	804.3	805.3	806.2	807.3
135°	827.3	832.1	836.8	839.6	840.3	841.1	842.0	842.7
137.5°	861.3	865.6	870.0	872.4	872.7	873.1	873.5	873.8
140°	883.4	887.3	891.1	893.0	893.0	893.0	893.0	893.0
142.5°	904.5	907.8	911.0	912.6	912.4	912.3	912.1	912.1
145°	934.4	936.5	938.6	939.5	939.4	939.2	939.1	938.9
147.5°	960.9	961.9	962.9	963.3	962.9	962.5	962.1	961.7
150°	977.9	979.0	980.1	980.2	979.3	978.4	977.5	976.6
152.5°	993.7	994.7	995.7	995.7	994.5	993.4	992.3	991.1
155°	1014.9	1016.0	1017.0	1016.8	1015.5	1014.0	1012.6	1011.2
157.5°	1032.8	1034.0	1035.2	1035.1	1033.7	1032.3	1031.0	1029.7
160°	1043.2	1044.3	1045.3	1045.3	1044.0	1042.8	1041.6	1040.3
162.5°	1052.9	1054.1	1055.3	1055.2	1053.7	1052.1	1050.7	1049.1
165°	1064.8	1066.0	1067.2	1067.2	1066.0	1064.8	1063.6	1062.4
167.5°	1074.7	1075.9	1077.2	1076.9	1075.4	1073.8	1072.3	1070.7
170°	1079.8	1081.0	1082.2	1082.0	1080.5	1078.8	1077.3	1075.7
172.5°	1083.5	1084.8	1086.0	1085.8	1084.2	1082.6	1081.1	1079.5
175°	1087.6	1088.8	1090.0	1089.8	1088.0	1086.3	1084.5	1082.8
177.5°	1088.0	1089.1	1090.0	1089.9	1088.6	1087.4	1086.1	1084.9
180°	1086.8	1086.8	1086.8	1086.8	1086.8	1086.8	1086.8	1086.8

(END OF REPORT)