

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: P331432-927

Luminaire Tested: **SA2XXDIP-C1005D530U927-4F0-1E-UDD-D**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331432-927  
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-C1005D530U927-4F0-1E-UDD-D  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1005 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 530 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4871.6 lumens  
Efficiency: N/A  
Efficacy: 88.4 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: General Diffuse

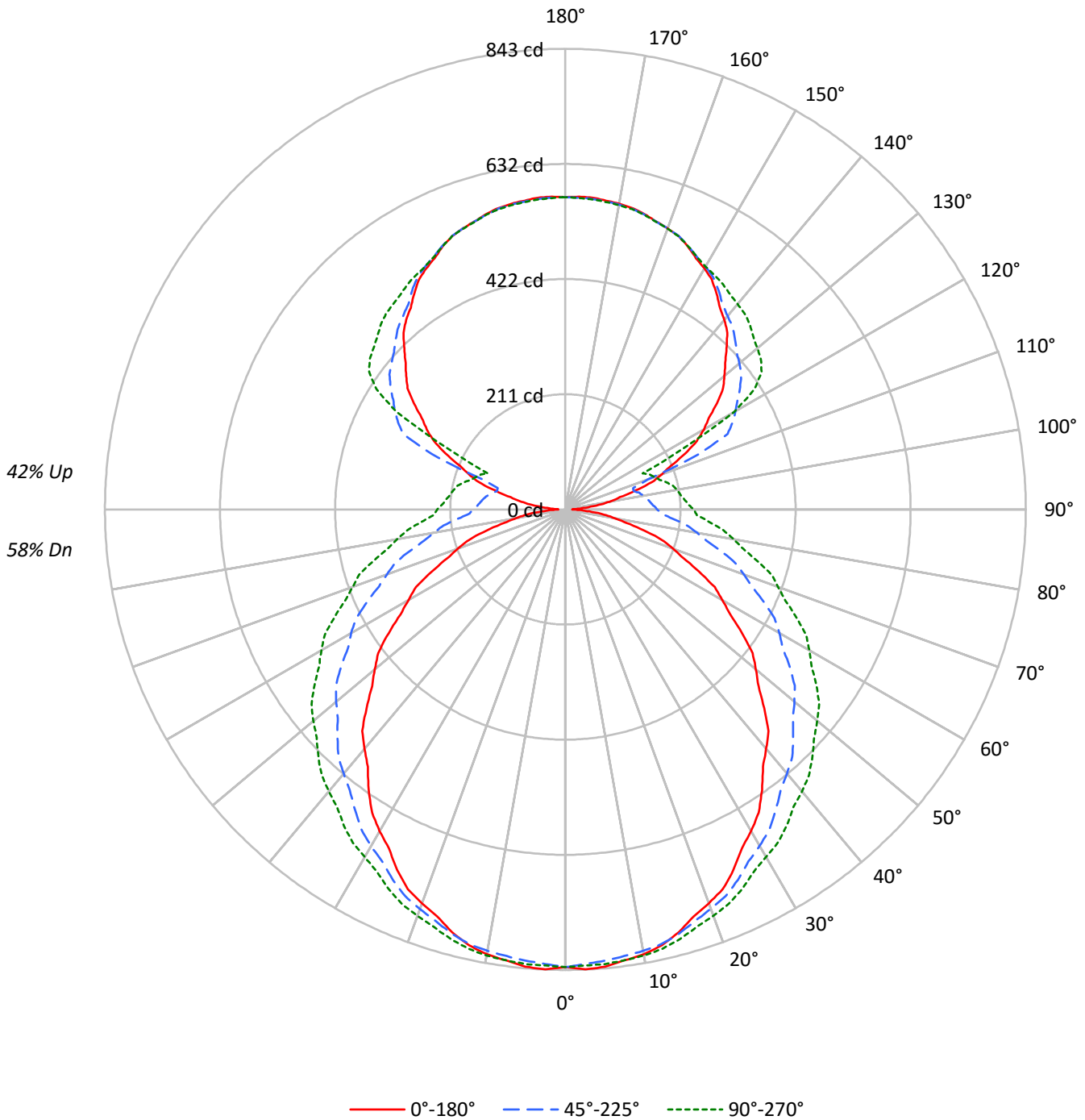
Input Watts (W): 55.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	109	109	109	109	102	102	102	102	88	88	88	75	75	75	64	64	64	58				
1	98	93	88	84	91	86	82	79	75	71	69	64	61	59	54	52	50	46				
2	88	80	73	67	82	75	68	63	64	60	55	55	51	48	46	43	41	37				
3	80	70	62	55	74	65	58	52	56	51	46	48	44	40	40	37	34	30				
4	73	61	53	46	68	57	50	44	50	43	39	42	38	34	36	32	29	26				
5	67	55	46	39	62	51	43	37	44	38	33	38	33	29	32	28	25	22				
6	62	49	40	34	57	46	38	32	40	33	29	34	29	25	29	25	22	19				
7	57	44	36	30	53	41	34	28	36	30	25	31	26	22	26	22	19	17				
8	53	40	32	26	49	37	30	25	33	27	22	28	23	20	24	20	17	15				
9	49	36	28	23	46	34	27	22	30	24	20	26	21	18	22	18	15	13				
10	46	33	26	21	43	31	24	20	28	22	18	24	19	16	21	17	14	12				

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

	0°	45°	90°
0°	13525	13525	13525
5°	13591	13020	12971
10°	13506	12635	12493
15°	13320	12228	11990
20°	13085	11791	11506
25°	12852	11370	11066
30°	12525	10939	10626
35°	12192	10521	10314
40°	11845	10165	10004
45°	11515	9846	9739
50°	11159	9559	9477
55°	10787	9249	9211
60°	10329	8927	8928
65°	9856	8551	8595
70°	9323	8147	8233
75°	8642	7750	7901
80°	7567	7345	7563
85°	6539	6995	7303



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.4	1.6
10°-20°	227.6	4.7
20°-30°	344.9	7.1
30°-40°	420.1	8.6
40°-50°	452.0	9.3
50°-60°	438.9	9.0
60°-70°	383.2	7.9
70°-80°	295.0	6.1
80°-90°	199.4	4.1
90°-100°	155.5	3.2
100°-110°	169.5	3.5
110°-120°	252.6	5.2
120°-130°	345.1	7.1
130°-140°	343.4	7.0
140°-150°	307.5	6.3
150°-160°	245.1	5.0
160°-170°	157.9	3.2
170°-180°	54.4	1.1
0°-30°	651.9	13.4
0°-40°	1072.0	22.0
0°-60°	1962.9	40.3
0°-90°	2840.6	58.3
90°-120°	577.6	11.9
90°-150°	1573.6	32.3
90°-180°	2031.0	41.7
0°-180°	4871.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	838	838	838	838	838	
5°	840	836	829	836	835	80
15°	801	804	804	814	813	226
25°	728	737	748	762	766	335
35°	628	648	671	697	706	392
45°	515	548	590	626	640	397
55°	395	439	501	544	561	353
65°	270	330	401	449	466	268
75°	149	218	295	345	363	158
85°	44	119	197	246	265	47
90°	12	88	168	217	235	9
95°	37	82	156	202	218	41
105°	132	174	130	175	192	141
115°	243	265	328	181	156	238
125°	338	346	391	425	438	302
135°	417	424	440	468	478	322
145°	482	482	489	499	503	302
155°	531	528	532	535	532	245
165°	560	558	558	561	558	158
175°	573	570	570	573	569	54
180°	571	571	571	571	571	



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CATALOG NUMBER: SA2XXDIP-C1005D530U927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	837.7	837.7	837.7	837.7	837.7	837.7	837.7	837.7	837.7	837.7	837.7
2.5°	842.6	841.9	841.2	840.6	840.0	838.8	837.3	835.8	834.3	832.8	833.9
5°	840.1	839.3	838.5	837.7	836.9	835.7	834.1	832.4	830.8	829.2	830.8
7.5°	832.6	832.0	831.5	831.0	830.4	829.6	828.3	827.0	825.9	824.6	826.5
10°	826.8	826.2	825.7	825.1	824.6	823.9	823.2	822.3	821.5	820.7	822.8
12.5°	817.1	817.1	817.3	817.4	817.5	817.2	816.7	816.0	815.5	814.8	817.1
15°	801.3	801.8	802.3	802.9	803.4	803.7	803.7	803.7	803.7	803.7	806.1
17.5°	780.9	782.0	783.2	784.3	785.4	786.4	787.3	788.1	789.0	789.9	792.4
20°	767.3	768.7	770.0	771.3	772.7	773.9	775.0	776.0	777.1	778.2	781.2
22.5°	752.7	754.2	755.8	757.4	759.0	760.5	762.0	763.5	765.0	766.5	769.5
25°	728.4	730.3	732.2	734.1	736.0	738.2	740.5	743.0	745.4	747.8	751.1
27.5°	699.3	702.3	705.4	708.5	711.6	714.5	717.4	720.3	723.1	726.0	730.1
30°	679.9	683.3	686.9	690.4	693.9	697.4	700.9	704.4	707.9	711.5	715.7
32.5°	658.5	662.4	666.4	670.3	674.2	678.3	682.5	686.6	690.8	694.9	699.9
35°	627.6	632.2	636.8	641.4	646.0	650.9	656.0	661.1	666.2	671.4	677.3
37.5°	594.1	599.4	604.8	610.0	615.3	621.2	627.9	634.5	641.2	647.8	654.4
40°	571.8	577.7	583.7	589.6	595.6	602.1	609.4	616.7	624.0	631.3	638.3
42.5°	550.5	556.3	562.3	568.2	574.2	581.3	589.7	598.1	606.4	614.8	622.4
45°	514.8	522.0	529.3	536.6	543.9	552.2	561.7	571.2	580.6	590.0	598.4
47.5°	479.6	487.5	495.4	503.4	511.3	520.8	531.9	542.9	554.0	565.0	573.8
50°	455.3	463.7	472.0	480.4	488.7	499.0	511.1	523.2	535.4	547.6	556.7
52.5°	432.0	440.8	449.6	458.4	467.1	477.9	490.7	503.5	516.3	529.1	538.4
55°	394.6	404.3	414.0	423.7	433.4	445.3	459.3	473.3	487.4	501.4	511.1
57.5°	357.7	368.6	379.5	390.5	401.5	414.1	428.4	442.7	457.0	471.3	481.7
60°	331.4	343.0	354.7	366.2	377.9	391.3	406.7	422.1	437.4	452.8	463.1
62.5°	308.2	320.1	332.2	344.2	356.2	369.9	385.3	400.7	416.1	431.5	442.4
65°	269.5	282.7	296.0	309.2	322.4	337.0	352.9	368.8	384.7	400.6	411.7
67.5°	234.1	247.9	261.7	275.5	289.3	304.4	320.7	337.0	353.2	369.6	380.7
70°	208.8	222.8	236.9	250.9	264.9	280.3	297.1	313.8	330.5	347.2	358.8
72.5°	185.5	199.9	214.4	228.9	243.4	259.0	276.0	292.9	309.9	326.9	338.2
75°	149.3	164.5	179.5	194.6	209.8	225.9	243.2	260.5	277.7	295.0	306.6
77.5°	114.4	130.2	146.0	161.8	177.6	194.2	211.8	229.3	246.8	264.4	276.0
80°	91.0	107.5	124.0	140.5	156.9	173.9	191.4	209.0	226.5	244.0	255.3
82.5°	71.6	87.9	104.1	120.3	136.6	153.6	171.3	189.1	206.8	224.6	235.9
85°	43.7	60.4	77.2	93.9	110.6	127.6	144.9	162.2	179.4	196.7	208.0
87.5°	23.8	40.2	56.4	72.7	89.0	105.8	123.3	140.7	158.1	175.5	186.6
90°	12.5	29.2	45.9	62.5	79.2	96.5	114.5	132.5	150.5	168.5	179.7
92.5°	19.5	34.0	48.5	63.0	77.4	93.2	110.1	127.1	144.1	161.1	171.9
95°	36.6	46.3	55.8	65.5	75.2	88.4	105.3	122.1	138.9	155.7	166.4
97.5°	61.8	64.6	67.3	70.0	72.7	82.6	99.7	116.7	133.7	150.8	161.1
100°	81.7	79.1	76.4	73.8	71.2	78.3	95.0	111.6	128.3	145.0	155.7
102.5°	102.5	109.0	115.4	121.9	128.3	132.4	134.0	135.6	137.2	138.9	149.6
105°	131.7	142.4	152.9	163.5	174.0	173.8	162.8	151.7	140.7	129.6	140.1
107.5°	166.5	175.0	183.5	191.9	200.4	196.3	179.7	163.0	146.4	129.8	137.8
110°	188.0	195.4	202.6	210.0	217.3	214.3	201.0	187.7	174.3	161.0	160.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	209.1	215.4	221.7	227.9	234.2	240.3	246.3	252.3	258.3	264.3	239.4
115°	242.6	247.1	251.6	256.2	260.7	270.1	284.6	299.0	313.5	327.9	293.5
117.5°	271.2	274.9	278.6	282.3	286.0	294.2	307.0	319.8	332.6	345.4	343.1
120°	293.0	295.5	297.9	300.4	302.9	310.3	322.7	335.2	347.6	360.1	368.8
122.5°	311.6	313.5	315.3	317.2	319.1	326.0	337.9	349.9	361.9	373.8	381.8
125°	338.5	339.8	341.0	342.1	343.3	349.1	359.5	369.9	380.2	390.6	398.5
127.5°	364.1	365.1	366.2	367.3	368.3	373.0	381.2	389.5	397.8	406.0	413.7
130°	380.3	381.5	382.7	383.9	385.1	389.0	395.7	402.3	409.1	415.7	423.2
132.5°	396.8	397.8	398.8	399.7	400.8	403.9	409.3	414.7	420.1	425.5	432.6
135°	417.1	418.6	420.0	421.5	423.0	425.5	429.0	432.5	436.1	439.6	446.2
137.5°	438.9	439.8	440.8	441.8	442.8	444.3	446.4	448.5	450.7	452.8	458.7
140°	453.0	453.5	454.0	454.5	455.0	456.0	457.5	459.1	460.6	462.2	467.3
142.5°	465.0	465.4	465.8	466.1	466.5	467.4	468.7	469.9	471.2	472.5	476.7
145°	482.4	482.4	482.3	482.2	482.1	482.8	484.4	485.9	487.5	489.1	491.3
147.5°	498.8	498.4	498.0	497.7	497.3	498.0	499.5	501.1	502.6	504.1	504.8
150°	509.3	508.7	508.0	507.4	506.8	507.2	508.7	510.1	511.6	513.0	513.6
152.5°	518.2	517.5	516.8	516.1	515.4	515.7	517.1	518.6	519.9	521.3	521.9
155°	531.2	530.4	529.6	528.8	527.9	528.1	529.2	530.3	531.4	532.5	533.1
157.5°	541.4	540.7	540.0	539.3	538.6	538.7	539.4	540.2	541.0	541.8	542.3
160°	547.4	546.8	546.3	545.7	545.2	545.2	545.7	546.3	546.8	547.4	548.0
162.5°	552.6	552.1	551.5	551.0	550.5	550.4	550.9	551.4	551.8	552.3	552.9
165°	559.8	559.2	558.6	558.1	557.5	557.5	557.7	557.9	558.3	558.5	559.2
167.5°	565.1	564.5	564.0	563.4	562.8	562.7	562.9	563.2	563.5	563.7	564.4
170°	568.0	567.5	567.0	566.4	565.9	565.6	565.9	566.0	566.2	566.4	567.0
172.5°	570.1	569.5	568.9	568.4	567.8	567.6	567.8	568.0	568.2	568.4	569.0
175°	572.6	572.0	571.3	570.7	570.0	569.8	570.0	570.1	570.3	570.5	571.2
177.5°	573.0	572.5	572.0	571.5	570.9	570.7	570.8	570.8	570.9	571.0	571.6
180°	571.3	571.3	571.3	571.3	571.3	571.3	571.3	571.3	571.3	571.3	571.3



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	837.7	837.7	837.7	837.7	837.7	837.7	837.7	837.7
2.5°	835.0	836.1	837.2	837.5	837.0	836.6	836.1	835.8
5°	832.4	834.1	835.7	836.3	836.1	835.8	835.5	835.3
7.5°	828.5	830.4	832.3	833.2	832.9	832.7	832.3	832.1
10°	825.0	827.2	829.3	830.3	830.0	829.7	829.5	829.2
12.5°	819.2	821.3	823.5	824.4	824.2	823.9	823.6	823.4
15°	808.6	811.0	813.4	814.5	814.2	814.0	813.7	813.4
17.5°	795.0	797.5	800.0	801.3	801.3	801.3	801.3	801.3
20°	784.1	787.1	790.0	791.5	791.5	791.5	791.5	791.5
22.5°	772.5	775.5	778.4	780.1	780.5	781.0	781.4	781.9
25°	754.3	757.6	760.8	762.8	763.7	764.5	765.2	766.0
27.5°	734.2	738.3	742.4	744.7	745.4	745.9	746.6	747.1
30°	720.1	724.4	728.7	731.3	732.1	732.8	733.7	734.5
32.5°	704.9	709.8	714.8	718.0	719.5	720.9	722.4	723.8
35°	683.3	689.2	695.1	699.0	700.9	702.8	704.7	706.5
37.5°	661.0	667.6	674.1	678.4	680.4	682.5	684.4	686.4
40°	645.3	652.4	659.3	664.1	666.5	668.9	671.4	673.8
42.5°	630.1	637.8	645.5	650.5	652.9	655.4	657.7	660.2
45°	606.7	615.1	623.4	629.0	631.7	634.4	637.1	639.8
47.5°	582.5	591.2	600.0	605.9	608.8	611.8	614.7	617.7
50°	565.9	575.0	584.2	590.3	593.3	596.2	599.2	602.1
52.5°	547.9	557.2	566.6	572.9	576.1	579.3	582.5	585.7
55°	520.9	530.5	540.3	546.8	550.3	553.9	557.4	560.9
57.5°	492.3	502.7	513.2	520.1	523.7	527.3	530.8	534.4
60°	473.3	483.6	493.8	500.9	504.6	508.4	512.2	515.9
62.5°	453.3	464.1	475.1	482.3	485.8	489.4	493.0	496.5
65°	422.8	433.8	444.9	452.2	455.7	459.1	462.7	466.2
67.5°	391.9	403.1	414.2	421.7	425.3	429.0	432.7	436.3
70°	370.4	382.0	393.6	401.0	404.3	407.5	410.7	414.0
72.5°	349.6	361.0	372.3	380.0	383.9	387.8	391.7	395.5
75°	318.2	329.8	341.4	349.0	352.4	356.0	359.5	363.0
77.5°	287.5	299.0	310.6	318.3	322.0	325.8	329.6	333.4
80°	266.6	278.1	289.4	296.9	300.7	304.4	308.2	312.0
82.5°	247.2	258.6	269.9	277.3	280.9	284.5	288.0	291.6
85°	219.4	230.7	242.0	249.5	253.3	257.1	260.9	264.7
87.5°	197.7	208.8	219.9	227.2	230.7	234.2	237.7	241.1
90°	191.0	202.2	213.5	220.9	224.3	227.7	231.2	234.6
92.5°	182.8	193.5	204.4	211.4	214.8	218.2	221.5	224.8
95°	177.1	187.9	198.6	205.5	208.7	211.8	214.9	218.1
97.5°	171.4	181.8	192.2	199.0	202.2	205.6	208.8	212.1
100°	166.4	177.1	187.8	194.8	197.9	201.1	204.2	207.4
102.5°	160.3	171.0	181.7	188.7	191.9	195.1	198.4	201.6
105°	150.5	161.0	171.4	178.3	181.6	185.0	188.3	191.7
107.5°	145.8	153.8	161.9	167.6	171.0	174.3	177.6	180.9
110°	159.9	159.3	158.8	160.2	163.5	166.8	170.2	173.5





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CATALOG NUMBER: SA2XXDIP-C1005D530U927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	214.5	189.6	164.8	154.0	157.2	160.5	163.7	167.0
115°	259.0	224.6	190.1	171.1	167.5	163.8	160.2	156.5
117.5°	340.8	338.5	336.2	325.6	306.6	287.6	268.6	249.6
120°	377.4	386.0	394.7	394.3	384.9	375.5	366.0	356.6
122.5°	389.8	397.8	405.8	409.9	410.0	410.1	410.2	410.4
125°	406.5	414.4	422.3	427.6	430.3	433.0	435.8	438.5
127.5°	421.3	428.9	436.5	441.6	444.0	446.4	448.9	451.3
130°	430.7	438.2	445.7	450.4	452.5	454.6	456.6	458.8
132.5°	439.7	446.8	453.9	458.5	460.6	462.6	464.8	466.8
135°	452.7	459.3	466.0	470.2	472.1	474.1	476.1	478.1
137.5°	464.5	470.4	476.3	480.0	481.5	483.0	484.5	486.0
140°	472.5	477.6	482.8	485.8	487.0	488.2	489.3	490.5
142.5°	480.9	485.1	489.3	491.9	492.8	493.8	494.6	495.6
145°	493.6	495.8	498.1	499.7	500.6	501.5	502.4	503.3
147.5°	505.5	506.2	506.9	507.4	507.6	507.9	508.2	508.4
150°	514.1	514.7	515.2	515.3	514.8	514.4	513.9	513.5
152.5°	522.4	523.0	523.6	523.5	522.9	522.3	521.7	521.1
155°	533.6	534.2	534.7	534.6	533.9	533.1	532.4	531.6
157.5°	543.0	543.6	544.2	544.2	543.4	542.7	542.0	541.3
160°	548.4	549.0	549.5	549.5	548.9	548.3	547.6	546.9
162.5°	553.6	554.2	554.8	554.8	554.0	553.2	552.4	551.6
165°	559.8	560.5	561.1	561.1	560.5	559.8	559.2	558.5
167.5°	565.0	565.7	566.3	566.3	565.4	564.6	563.7	562.9
170°	567.7	568.3	568.9	568.9	568.0	567.2	566.4	565.5
172.5°	569.7	570.3	570.9	570.8	570.1	569.2	568.4	567.5
175°	571.8	572.4	573.1	573.0	572.0	571.1	570.2	569.3
177.5°	572.0	572.6	573.1	573.0	572.4	571.6	571.0	570.4
180°	571.3	571.3	571.3	571.3	571.3	571.3	571.3	571.3

(END OF REPORT)