

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: P331306-940

Luminaire Tested: **SA2XXDIP-C485D725U940-4F0-1E-UDD-D**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331306-940  
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-C485D725U940-4F0-1E-UDD-D  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 725 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

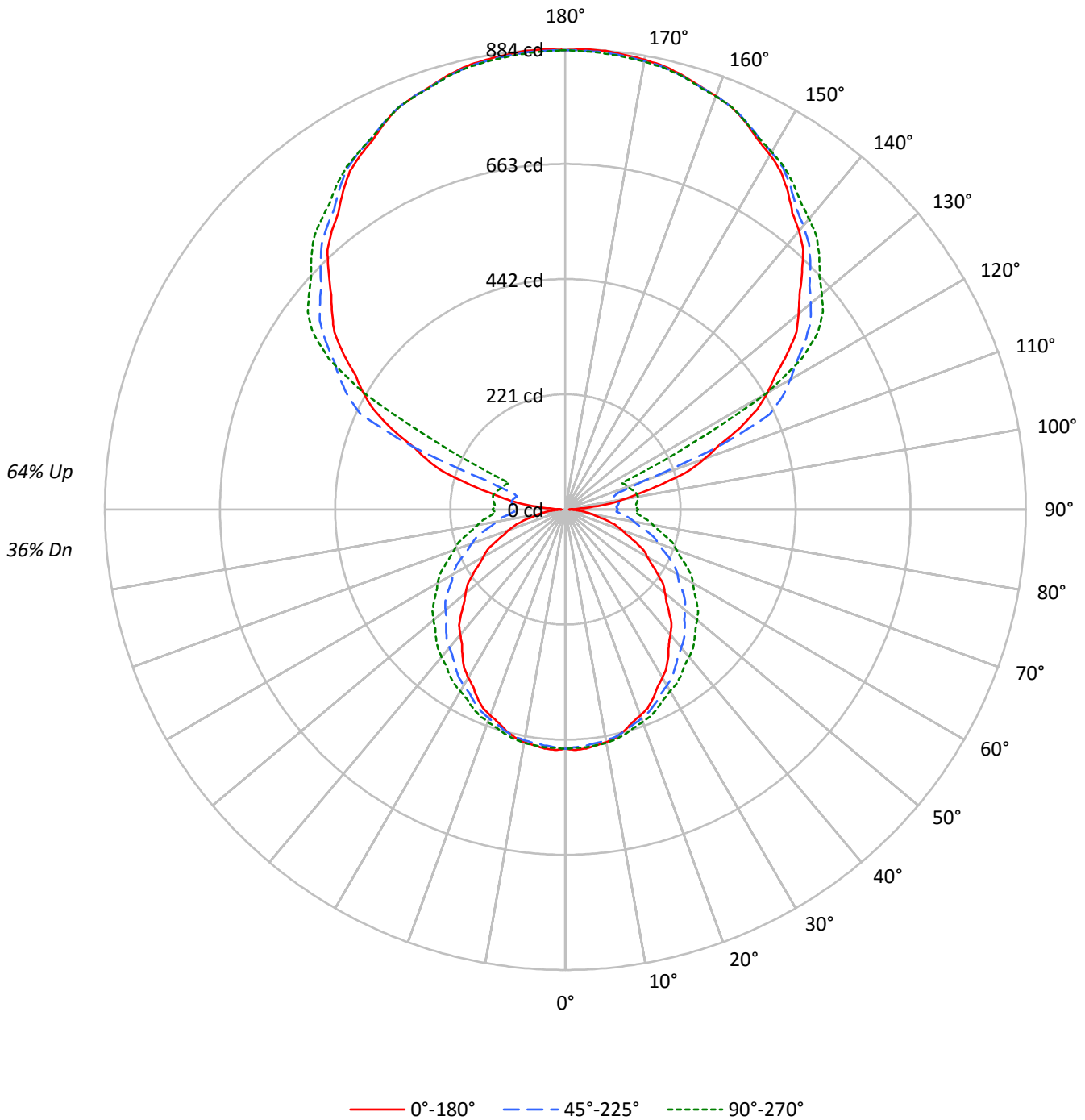
Lumens per Lamp: N/A  
Luminaire Lumens: 4338.6 lumens  
Efficiency: N/A  
Efficacy: 113.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')  
CIE Type: Semi-Indirect

Input Watts (W): 38.4  
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



TEST NUMBER: P331306-940  
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### Luminous Intensity Polar Plot





TEST NUMBER: P331306-940

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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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	43	43	43	36				36
1	94	89	85	81	84	80	77	74	64	62	60	50	48	47	36	35	34	28				28
2	85	77	70	65	76	70	64	59	56	52	48	43	40	38	31	30	28	23				23
3	77	67	60	54	69	61	54	49	49	44	40	38	34	32	27	25	23	19				19
4	70	59	51	45	63	54	47	41	43	38	34	33	30	27	24	22	20	16				16
5	64	52	44	38	58	48	40	35	38	33	29	30	26	23	22	19	17	13				13
6	59	47	39	33	53	43	35	30	34	29	25	27	23	20	20	17	15	12				12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10				10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	14	12	9				9
9	47	35	27	22	42	32	25	20	26	21	17	20	16	14	15	12	10	8				8
10	44	32	24	20	39	29	22	18	24	19	15	19	15	12	14	11	9	7				7

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

	0°	45°	90°
0°	7419	7419	7419
5°	7455	7143	7115
10°	7408	6931	6854
15°	7306	6708	6577
20°	7177	6468	6312
25°	7050	6237	6072
30°	6870	5999	5829
35°	6689	5771	5659
40°	6498	5576	5488
45°	6317	5402	5343
50°	6123	5242	5199
55°	5916	5073	5052
60°	5666	4897	4897
65°	5405	4692	4714
70°	5117	4470	4516
75°	4741	4251	4334
80°	4149	4028	4148
85°	3591	3837	4006



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.5	1.0
10°-20°	124.9	2.9
20°-30°	189.2	4.4
30°-40°	230.5	5.3
40°-50°	247.9	5.7
50°-60°	240.8	5.5
60°-70°	210.2	4.8
70°-80°	161.8	3.7
80°-90°	110.8	2.6
90°-100°	104.2	2.4
100°-110°	162.5	3.7
110°-120°	324.3	7.5
120°-130°	496.0	11.4
130°-140°	514.5	11.9
140°-150°	471.8	10.9
150°-160°	378.1	8.7
160°-170°	243.7	5.6
170°-180°	83.9	1.9
0°-30°	357.6	8.2
0°-40°	588.1	13.6
0°-60°	1076.8	24.8
0°-90°	1559.6	35.9
90°-120°	591.1	13.6
90°-150°	2073.3	47.8
90°-180°	2779.0	64.1
0°-180°	4338.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	460	460	460	460	460	
5°	461	459	455	459	458	44
15°	440	441	441	446	446	124
25°	400	404	410	418	420	184
35°	344	356	368	382	388	215
45°	282	301	324	344	351	218
55°	216	241	275	298	308	193
65°	148	181	220	246	256	147
75°	82	119	162	189	199	87
85°	24	65	108	135	145	26
90°	7	53	101	129	140	6
95°	47	59	102	129	137	55
105°	197	226	96	125	136	211
115°	369	389	434	171	120	363
125°	520	530	562	583	592	464
135°	642	653	665	684	689	496
145°	744	744	755	763	763	466
155°	820	815	822	825	820	378
165°	864	860	862	866	862	244
175°	883	879	880	884	878	84
180°	882	882	882	882	882	



TEST NUMBER: P331306-940

CATALOG NUMBER: SA2XXDIP-C485D725U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	459.5	459.5	459.5	459.5	459.5	459.5	459.5	459.5	459.5	459.5	459.5
2.5°	462.2	461.8	461.5	461.1	460.7	460.1	459.3	458.5	457.7	456.8	457.4
5°	460.8	460.4	459.9	459.5	459.1	458.4	457.5	456.6	455.8	454.9	455.8
7.5°	456.7	456.4	456.1	455.8	455.6	455.0	454.3	453.7	453.0	452.3	453.3
10°	453.5	453.3	452.9	452.6	452.4	452.0	451.6	451.1	450.7	450.2	451.4
12.5°	448.2	448.3	448.4	448.4	448.4	448.3	448.0	447.6	447.3	447.0	448.2
15°	439.5	439.8	440.1	440.4	440.7	440.9	440.9	440.9	440.9	440.9	442.2
17.5°	428.4	429.0	429.6	430.3	430.9	431.4	431.9	432.3	432.8	433.3	434.6
20°	420.9	421.6	422.4	423.1	423.8	424.5	425.1	425.7	426.3	426.9	428.5
22.5°	412.9	413.8	414.6	415.4	416.3	417.1	418.0	418.8	419.6	420.5	422.1
25°	399.6	400.6	401.6	402.7	403.7	404.9	406.3	407.6	408.9	410.2	412.0
27.5°	383.6	385.3	387.0	388.7	390.3	392.0	393.5	395.1	396.6	398.2	400.5
30°	372.9	374.9	376.7	378.7	380.7	382.5	384.5	386.4	388.3	390.2	392.6
32.5°	361.2	363.4	365.5	367.7	369.9	372.1	374.3	376.7	378.9	381.2	383.9
35°	344.3	346.8	349.4	351.9	354.4	357.0	359.8	362.7	365.4	368.3	371.5
37.5°	325.9	328.9	331.7	334.7	337.5	340.8	344.5	348.0	351.7	355.3	359.0
40°	313.7	316.9	320.2	323.4	326.7	330.3	334.3	338.3	342.3	346.3	350.2
42.5°	301.9	305.2	308.4	311.7	315.0	318.9	323.5	328.1	332.7	337.2	341.4
45°	282.4	286.3	290.3	294.4	298.4	302.9	308.1	313.3	318.5	323.7	328.2
47.5°	263.1	267.4	271.8	276.1	280.4	285.7	291.8	297.8	303.9	310.0	314.8
50°	249.8	254.3	259.0	263.5	268.0	273.7	280.4	287.0	293.7	300.3	305.4
52.5°	236.9	241.7	246.6	251.5	256.3	262.2	269.2	276.2	283.2	290.3	295.3
55°	216.4	221.8	227.1	232.4	237.7	244.2	252.0	259.7	267.3	275.0	280.4
57.5°	196.2	202.2	208.2	214.2	220.3	227.1	235.0	242.8	250.7	258.5	264.3
60°	181.8	188.2	194.6	200.9	207.2	214.6	223.1	231.5	240.0	248.4	254.0
62.5°	169.0	175.6	182.3	188.9	195.5	203.0	211.3	219.8	228.3	236.7	242.6
65°	147.8	155.1	162.4	169.6	176.8	184.9	193.6	202.3	211.1	219.8	225.9
67.5°	128.4	136.0	143.6	151.1	158.7	166.9	175.9	184.9	193.8	202.7	208.8
70°	114.6	122.3	129.9	137.6	145.3	153.7	162.9	172.1	181.3	190.5	196.8
72.5°	101.7	109.7	117.6	125.6	133.5	142.1	151.4	160.7	170.0	179.2	185.6
75°	81.9	90.2	98.4	106.7	115.0	123.9	133.4	142.9	152.4	161.8	168.2
77.5°	62.8	71.4	80.1	88.7	97.5	106.6	116.2	125.8	135.5	145.1	151.4
80°	49.9	58.9	68.0	77.0	86.1	95.4	105.0	114.6	124.2	133.8	140.1
82.5°	39.3	48.2	57.1	66.0	74.9	84.3	94.0	103.7	113.4	123.2	129.4
85°	24.0	33.2	42.4	51.5	60.6	70.0	79.5	88.9	98.4	107.9	114.1
87.5°	13.2	22.3	31.5	40.6	49.7	59.1	68.8	78.6	88.2	97.9	104.1
90°	7.3	17.5	27.6	37.7	47.9	58.2	68.8	79.5	90.1	100.7	107.3
92.5°	19.0	26.8	34.7	42.5	50.4	59.2	68.8	78.6	88.2	97.9	104.1
95°	46.8	49.0	51.4	53.6	55.9	62.0	71.9	81.7	91.6	101.5	107.8
97.5°	86.9	80.0	72.9	66.0	58.9	60.9	71.7	82.5	93.4	104.2	110.2
100°	117.5	103.6	89.7	75.7	61.8	60.2	70.9	81.6	92.3	103.0	109.6
102.5°	150.7	151.6	152.5	153.4	154.3	148.6	136.5	124.5	112.4	100.2	107.1
105°	197.2	205.8	214.4	222.8	231.4	220.2	189.2	158.2	127.2	96.2	102.9
107.5°	251.1	258.0	264.8	271.7	278.6	262.4	223.4	184.4	145.3	106.3	109.7
110°	285.3	291.1	297.1	303.1	309.0	295.1	261.4	227.7	193.9	160.2	150.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	317.9	323.1	328.1	333.2	338.4	339.3	336.1	332.9	329.7	326.5	279.5
115°	369.4	373.4	377.6	381.6	385.6	392.7	402.9	413.1	423.3	433.5	372.3
117.5°	414.8	418.6	422.3	426.1	429.9	436.0	444.6	453.3	461.8	470.4	459.0
120°	448.5	451.2	454.0	456.6	459.4	464.9	473.4	481.9	490.4	498.8	504.7
122.5°	477.1	479.6	482.1	484.6	487.0	492.4	500.8	509.1	517.5	525.8	530.8
125°	520.0	521.7	523.6	525.5	527.3	531.9	539.4	546.8	554.2	561.6	566.6
127.5°	559.4	561.2	563.1	565.0	566.9	570.8	576.6	582.5	588.3	594.1	599.2
130°	584.3	586.5	588.6	590.7	592.8	596.2	600.9	605.6	610.2	614.9	620.0
132.5°	609.8	611.6	613.4	615.2	617.0	619.8	623.8	627.8	631.7	635.7	640.4
135°	642.4	644.6	646.9	649.2	651.4	654.0	656.7	659.4	662.2	664.9	669.5
137.5°	675.9	677.4	679.0	680.6	682.2	683.9	686.1	688.1	690.3	692.3	696.5
140°	697.9	698.8	699.8	700.8	701.8	703.2	705.1	706.9	708.8	710.6	714.3
142.5°	716.2	717.1	718.0	718.8	719.7	721.0	722.9	724.8	726.7	728.4	731.6
145°	744.4	744.2	744.1	744.0	743.9	744.9	747.3	749.8	752.2	754.6	756.4
147.5°	769.5	769.0	768.5	767.9	767.4	768.3	770.7	773.0	775.4	777.8	778.6
150°	785.9	784.9	783.9	782.9	781.9	782.6	784.8	787.0	789.3	791.6	792.5
152.5°	799.6	798.5	797.5	796.3	795.2	795.8	797.9	800.0	802.2	804.3	805.2
155°	819.7	818.4	817.1	815.8	814.6	814.8	816.5	818.1	819.8	821.5	822.4
157.5°	835.4	834.3	833.2	832.1	831.1	831.1	832.3	833.5	834.6	835.9	836.9
160°	844.5	843.6	842.8	842.0	841.2	841.2	842.0	842.8	843.6	844.5	845.4
162.5°	852.7	851.9	851.0	850.2	849.3	849.3	850.0	850.7	851.5	852.2	853.2
165°	863.7	862.8	862.0	861.1	860.2	860.1	860.5	860.9	861.3	861.7	862.7
167.5°	871.8	871.0	870.1	869.3	868.4	868.2	868.6	869.0	869.4	869.8	870.8
170°	876.5	875.6	874.8	873.9	873.1	872.7	873.1	873.3	873.6	873.9	874.9
172.5°	879.5	878.6	877.8	876.9	876.1	875.8	876.1	876.4	876.6	876.9	878.0
175°	883.4	882.4	881.5	880.5	879.5	879.1	879.4	879.7	879.9	880.3	881.3
177.5°	884.1	883.3	882.5	881.7	880.9	880.6	880.7	880.8	880.9	881.0	881.8
180°	881.5	881.5	881.5	881.5	881.5	881.5	881.5	881.5	881.5	881.5	881.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	459.5	459.5	459.5	459.5	459.5	459.5	459.5	459.5
2.5°	458.1	458.6	459.2	459.4	459.1	459.0	458.7	458.4
5°	456.6	457.5	458.4	458.8	458.6	458.5	458.3	458.2
7.5°	454.4	455.5	456.6	457.0	456.9	456.7	456.6	456.5
10°	452.5	453.7	455.0	455.5	455.3	455.1	455.0	454.9
12.5°	449.3	450.6	451.7	452.3	452.1	451.9	451.8	451.7
15°	443.5	444.9	446.2	446.7	446.7	446.5	446.3	446.2
17.5°	436.0	437.5	438.8	439.5	439.5	439.5	439.5	439.5
20°	430.2	431.8	433.4	434.2	434.2	434.2	434.2	434.2
22.5°	423.7	425.3	427.0	427.9	428.2	428.4	428.6	428.9
25°	413.8	415.5	417.3	418.5	418.9	419.4	419.8	420.3
27.5°	402.8	405.0	407.2	408.5	408.8	409.2	409.5	409.8
30°	395.0	397.3	399.8	401.1	401.5	402.0	402.4	402.9
32.5°	386.6	389.3	392.1	393.9	394.7	395.5	396.3	397.1
35°	374.8	378.1	381.3	383.4	384.5	385.5	386.6	387.6
37.5°	362.6	366.2	369.8	372.1	373.3	374.3	375.4	376.6
40°	354.0	357.8	361.7	364.3	365.6	366.9	368.3	369.6
42.5°	345.6	349.8	354.0	356.9	358.1	359.4	360.8	362.1
45°	332.9	337.4	342.0	345.0	346.5	348.0	349.5	351.0
47.5°	319.5	324.3	329.1	332.3	333.9	335.6	337.2	338.9
50°	310.4	315.4	320.5	323.8	325.5	327.1	328.7	330.3
52.5°	300.5	305.7	310.9	314.2	316.0	317.8	319.5	321.3
55°	285.7	291.1	296.3	300.0	301.9	303.8	305.8	307.6
57.5°	270.0	275.7	281.5	285.3	287.3	289.3	291.2	293.2
60°	259.7	265.3	270.9	274.7	276.8	278.9	281.0	283.0
62.5°	248.6	254.6	260.6	264.6	266.5	268.5	270.5	272.4
65°	231.9	238.0	244.1	248.1	249.9	251.9	253.8	255.7
67.5°	215.0	221.1	227.2	231.3	233.3	235.3	237.4	239.3
70°	203.2	209.6	215.9	220.0	221.8	223.6	225.3	227.1
72.5°	191.8	198.0	204.3	208.5	210.5	212.7	214.8	217.0
75°	174.6	180.9	187.3	191.5	193.3	195.3	197.2	199.1
77.5°	157.7	164.1	170.4	174.6	176.6	178.7	180.8	182.9
80°	146.3	152.5	158.7	162.8	165.0	167.0	169.1	171.1
82.5°	135.6	141.9	148.0	152.1	154.1	156.0	158.0	160.0
85°	120.3	126.5	132.8	136.9	138.9	141.1	143.1	145.2
87.5°	110.3	116.5	122.6	126.7	128.7	130.6	132.6	134.5
90°	114.0	120.6	127.2	131.5	133.6	135.6	137.7	139.7
92.5°	110.2	116.5	122.6	126.6	128.6	130.5	132.5	134.5
95°	114.1	120.5	126.8	130.8	132.4	134.0	135.7	137.3
97.5°	116.3	122.3	128.3	132.3	134.2	136.2	138.0	140.0
100°	116.2	122.8	129.4	133.7	135.5	137.5	139.4	141.3
102.5°	113.9	120.7	127.6	132.0	134.0	136.1	138.0	140.1
105°	109.7	116.4	123.1	127.6	129.8	132.0	134.2	136.3
107.5°	113.1	116.5	119.8	122.6	124.8	127.0	129.2	131.4
110°	141.3	131.9	122.5	118.9	121.1	123.2	125.5	127.6





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CATALOG NUMBER: SA2XXDIP-C485D725U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	232.5	185.5	138.6	116.1	118.2	120.3	122.3	124.4
115°	311.1	249.9	188.8	153.9	145.3	136.7	128.1	119.6
117.5°	447.5	436.0	424.5	402.7	370.7	338.6	306.6	274.6
120°	510.5	516.4	522.3	516.4	498.9	481.4	463.9	446.4
122.5°	535.8	540.9	546.0	547.3	545.0	542.7	540.4	538.1
125°	571.6	576.6	581.6	585.0	586.7	588.4	590.2	592.0
127.5°	604.3	609.5	614.6	617.8	619.2	620.6	622.0	623.4
130°	625.1	630.3	635.3	638.4	639.4	640.5	641.5	642.6
132.5°	645.2	650.0	654.7	657.6	658.7	659.7	660.8	661.8
135°	674.0	678.5	683.1	685.8	686.7	687.6	688.5	689.4
137.5°	700.6	704.7	708.8	711.1	711.7	712.2	712.7	713.2
140°	717.9	721.6	725.2	727.1	727.3	727.5	727.6	727.8
142.5°	734.6	737.6	740.7	742.3	742.3	742.3	742.4	742.5
145°	758.4	760.3	762.1	763.0	763.1	763.1	763.2	763.2
147.5°	779.5	780.4	781.2	781.6	781.3	781.0	780.9	780.6
150°	793.3	794.2	795.0	795.0	794.3	793.6	792.9	792.2
152.5°	806.0	806.9	807.8	807.7	806.8	805.8	804.9	804.0
155°	823.3	824.1	825.0	824.8	823.7	822.6	821.4	820.3
157.5°	837.8	838.7	839.7	839.6	838.6	837.4	836.3	835.3
160°	846.2	847.1	847.9	847.8	846.9	845.9	844.9	843.9
162.5°	854.1	855.1	856.0	856.0	854.7	853.5	852.3	851.0
165°	863.7	864.8	865.8	865.8	864.8	863.7	862.7	861.7
167.5°	871.8	872.8	873.8	873.6	872.4	871.1	869.8	868.5
170°	875.8	876.8	877.9	877.7	876.5	875.1	873.9	872.6
172.5°	879.0	879.9	880.9	880.7	879.5	878.2	876.9	875.7
175°	882.3	883.2	884.2	884.0	882.6	881.2	879.8	878.3
177.5°	882.6	883.4	884.2	884.1	883.1	882.1	881.0	880.0
180°	881.5	881.5	881.5	881.5	881.5	881.5	881.5	881.5

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