

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: P331360-927

Luminaire Tested: **SA2XXDIP-C675D925U927-4F0-1E-UDD-D**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331360-927
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-C675D925U927-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 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: 5061.5 lumens
Efficiency: N/A
Efficacy: 97.3 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

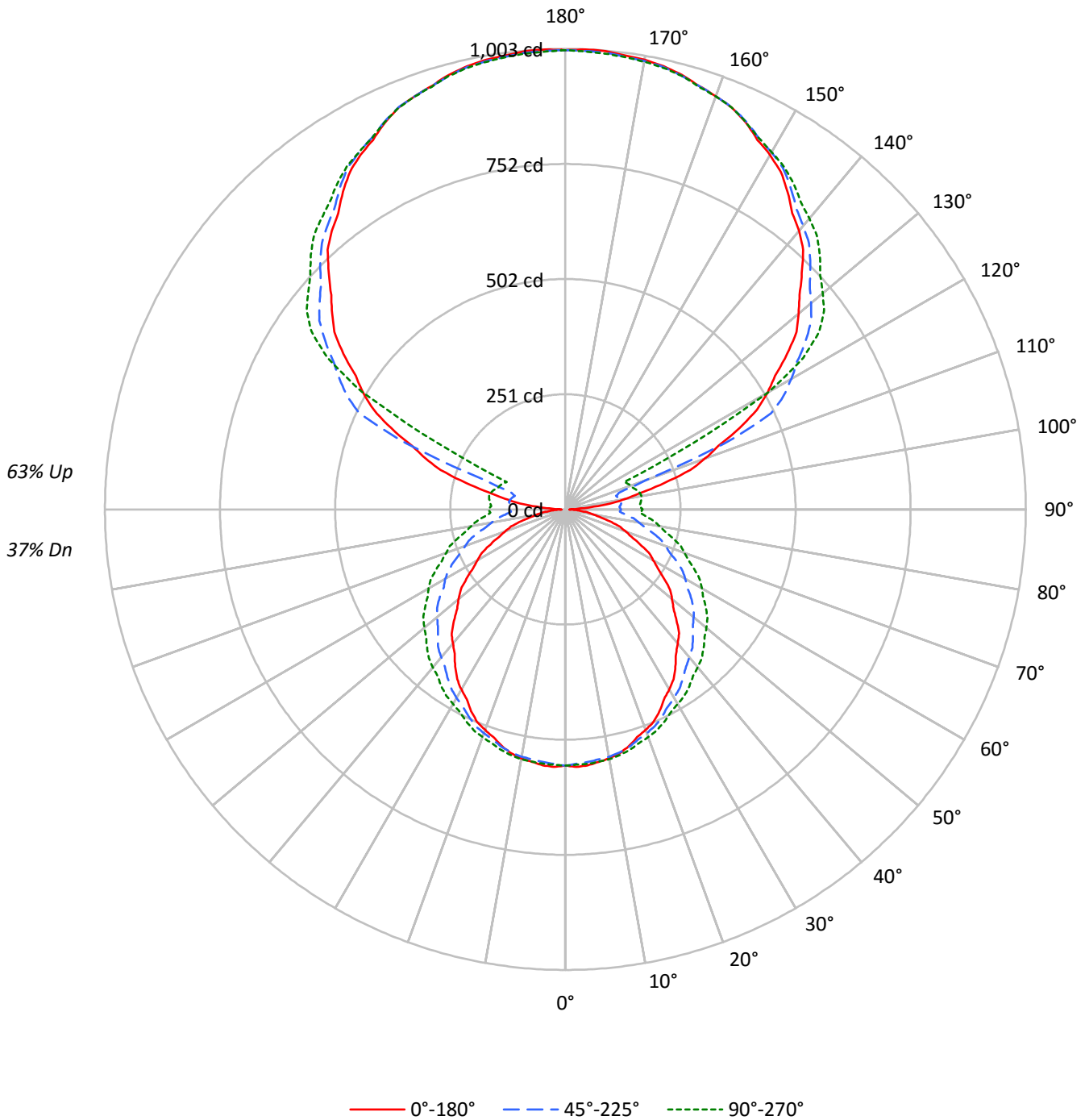
Input Watts (W): 52
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P331360-927

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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	0
RCR																		
0	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37
1	94	89	85	81	85	81	77	74	65	63	60	51	49	47	38	36	35	29
2	85	77	71	65	77	70	64	60	56	52	49	44	41	39	32	31	29	24
3	77	67	60	54	69	61	55	49	49	45	41	38	35	32	28	26	24	19
4	70	59	51	45	63	54	47	41	44	38	34	34	30	27	25	23	20	16
5	64	53	44	38	58	48	41	35	39	33	29	30	26	23	22	20	18	14
6	59	47	39	33	53	43	36	30	35	29	25	27	23	20	20	18	15	12
7	55	42	34	29	49	39	31	26	31	26	22	25	21	18	18	16	14	11
8	51	38	30	25	46	35	28	23	29	23	19	23	19	16	17	14	12	9
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	8
10	44	32	25	20	40	29	23	18	24	19	15	19	15	13	14	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9009	9009	9009
5°	9053	8672	8638
10°	8996	8417	8321
15°	8873	8146	7988
20°	8716	7854	7665
25°	8561	7573	7372
30°	8343	7286	7079
35°	8122	7007	6870
40°	7890	6771	6665
45°	7670	6558	6488
50°	7431	6366	6313
55°	7184	6161	6135
60°	6882	5948	5948
65°	6564	5697	5724
70°	6211	5427	5485
75°	5759	5163	5263
80°	5048	4895	5040
85°	4369	4658	4864



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.9	1.0
10°-20°	151.6	3.0
20°-30°	229.8	4.5
30°-40°	279.8	5.5
40°-50°	301.1	5.9
50°-60°	292.4	5.8
60°-70°	255.3	5.0
70°-80°	196.5	3.9
80°-90°	134.4	2.7
90°-100°	124.2	2.5
100°-110°	188.7	3.7
110°-120°	370.8	7.3
120°-130°	564.2	11.1
130°-140°	584.2	11.5
140°-150°	535.3	10.6
150°-160°	428.9	8.5
160°-170°	276.4	5.5
170°-180°	95.1	1.9
0°-30°	434.3	8.6
0°-40°	714.1	14.1
0°-60°	1307.5	25.8
0°-90°	1893.7	37.4
90°-120°	683.7	13.5
90°-150°	2367.3	46.8
90°-180°	3168.0	62.6
0°-180°	5061.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	558	558	558	558	558	
5°	560	557	552	557	556	53
15°	534	535	535	542	542	150
25°	485	491	498	507	510	223
35°	418	432	447	464	471	261
45°	343	365	393	417	426	265
55°	263	293	334	362	374	235
65°	180	220	267	299	310	178
75°	100	145	196	230	242	105
85°	29	79	131	164	176	31
90°	9	64	121	156	168	8
95°	54	70	121	154	164	63
105°	224	258	114	149	162	240
115°	419	442	495	199	141	412
125°	590	601	639	665	675	526
135°	729	740	755	778	784	563
145°	844	844	856	865	866	528
155°	930	924	932	936	930	428
165°	980	976	978	982	978	277
175°	1002	997	998	1003	996	95
180°	1000	1000	1000	1000	1000	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
2.5°	561.3	560.8	560.4	559.9	559.5	558.8	557.8	556.7	555.8	554.8	555.5
5°	559.6	559.0	558.6	558.0	557.5	556.7	555.6	554.5	553.4	552.3	553.4
7.5°	554.6	554.2	553.9	553.5	553.2	552.5	551.8	550.9	550.1	549.3	550.6
10°	550.7	550.3	550.0	549.6	549.3	548.8	548.3	547.8	547.2	546.7	548.1
12.5°	544.2	544.3	544.4	544.5	544.5	544.4	544.0	543.6	543.2	542.8	544.2
15°	533.8	534.1	534.5	534.8	535.2	535.4	535.4	535.4	535.4	535.4	536.9
17.5°	520.1	520.9	521.7	522.4	523.2	523.9	524.4	525.0	525.5	526.2	527.8
20°	511.1	512.0	512.9	513.8	514.7	515.5	516.2	517.0	517.7	518.4	520.4
22.5°	501.4	502.4	503.5	504.5	505.6	506.6	507.6	508.6	509.6	510.6	512.6
25°	485.2	486.5	487.7	489.0	490.3	491.7	493.3	495.0	496.5	498.1	500.3
27.5°	465.8	467.9	469.9	472.0	474.0	476.0	477.9	479.8	481.7	483.6	486.3
30°	452.9	455.2	457.6	459.9	462.2	464.5	466.9	469.2	471.6	473.9	476.7
32.5°	438.6	441.2	443.9	446.5	449.2	451.9	454.6	457.3	460.1	462.9	466.2
35°	418.1	421.1	424.2	427.2	430.3	433.6	437.0	440.4	443.8	447.2	451.1
37.5°	395.8	399.3	402.8	406.3	409.9	413.8	418.3	422.7	427.1	431.5	435.9
40°	380.9	384.8	388.8	392.8	396.7	401.1	406.0	410.8	415.7	420.5	425.2
42.5°	366.7	370.6	374.5	378.5	382.5	387.2	392.8	398.4	403.9	409.6	414.6
45°	342.9	347.8	352.6	357.4	362.3	367.9	374.1	380.5	386.7	393.0	398.6
47.5°	319.4	324.7	330.0	335.3	340.6	346.9	354.3	361.6	369.0	376.4	382.2
50°	303.2	308.9	314.4	320.0	325.5	332.4	340.5	348.6	356.6	364.7	370.8
52.5°	287.7	293.6	299.4	305.3	311.2	318.4	326.9	335.4	343.9	352.4	358.7
55°	262.8	269.3	275.8	282.3	288.7	296.6	305.9	315.3	324.6	334.0	340.5
57.5°	238.2	245.6	252.9	260.2	267.4	275.8	285.3	294.9	304.4	313.9	320.9
60°	220.8	228.5	236.2	244.0	251.7	260.7	270.9	281.1	291.4	301.7	308.5
62.5°	205.3	213.3	221.3	229.3	237.3	246.4	256.7	266.9	277.2	287.4	294.7
65°	179.5	188.3	197.2	206.0	214.8	224.4	235.0	245.7	256.3	266.9	274.3
67.5°	155.9	165.1	174.4	183.5	192.7	202.7	213.6	224.4	235.3	246.1	253.6
70°	139.1	148.5	157.8	167.2	176.5	186.7	197.9	209.0	220.1	231.3	239.0
72.5°	123.6	133.2	142.8	152.5	162.1	172.5	183.9	195.1	206.4	217.7	225.3
75°	99.5	109.6	119.6	129.7	139.7	150.5	162.0	173.5	185.0	196.5	204.2
77.5°	76.2	86.7	97.3	107.7	118.3	129.4	141.1	152.8	164.5	176.1	183.9
80°	60.7	71.6	82.5	93.6	104.5	115.8	127.5	139.2	150.8	162.6	170.1
82.5°	47.7	58.5	69.3	80.2	91.0	102.3	114.2	126.0	137.8	149.6	157.2
85°	29.2	40.2	51.4	62.5	73.7	85.0	96.5	108.0	119.5	131.0	138.6
87.5°	16.0	27.1	38.1	49.2	60.3	71.7	83.4	95.2	106.9	118.7	126.2
90°	8.8	21.0	33.2	45.4	57.6	70.0	82.9	95.6	108.4	121.2	129.2
92.5°	22.0	31.6	41.1	50.7	60.2	70.8	82.5	94.3	106.0	117.7	125.2
95°	53.5	56.6	59.8	62.9	66.1	73.6	85.5	97.4	109.3	121.2	128.9
97.5°	99.0	91.6	84.1	76.7	69.2	72.0	84.9	97.9	110.8	123.8	131.1
100°	133.7	118.4	103.0	87.6	72.2	70.9	83.7	96.5	109.3	122.1	130.1
102.5°	171.3	172.7	174.1	175.5	176.9	171.1	158.0	144.9	131.8	118.7	126.9
105°	223.9	234.0	244.1	254.1	264.1	251.8	217.3	182.8	148.2	113.7	121.8
107.5°	285.0	293.1	301.2	309.2	317.3	299.4	255.8	212.1	168.4	124.7	129.0
110°	323.8	330.7	337.7	344.7	351.6	336.3	298.7	260.9	223.3	185.6	175.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	360.8	366.8	372.8	378.8	384.8	386.3	383.2	380.1	377.0	373.8	321.0
115°	419.2	424.0	428.6	433.4	438.1	446.5	458.6	470.7	482.8	495.0	425.9
117.5°	470.6	475.0	479.3	483.7	488.1	495.4	505.6	515.9	526.1	536.3	523.6
120°	508.9	512.0	515.2	518.2	521.4	528.0	538.1	548.2	558.3	568.3	575.3
122.5°	541.3	544.2	546.9	549.8	552.6	559.0	568.9	578.8	588.7	598.6	604.7
125°	589.8	591.9	594.0	596.1	598.2	603.6	612.4	621.2	630.0	638.8	644.8
127.5°	634.5	636.7	638.8	641.0	643.1	647.6	654.5	661.5	668.4	675.3	681.4
130°	662.9	665.3	667.7	670.1	672.5	676.4	682.0	687.5	693.1	698.6	704.6
132.5°	691.8	693.9	695.9	697.8	699.9	703.2	707.9	712.6	717.2	721.9	727.6
135°	728.6	731.2	733.8	736.3	738.9	741.9	745.0	748.3	751.5	754.8	760.2
137.5°	766.7	768.5	770.2	772.0	773.7	775.9	778.3	780.7	783.2	785.6	790.4
140°	791.6	792.7	793.8	794.9	796.0	797.6	799.8	801.9	804.0	806.1	810.5
142.5°	812.5	813.4	814.4	815.4	816.3	817.8	820.0	822.0	824.2	826.2	829.9
145°	844.3	844.1	844.0	843.8	843.7	844.9	847.7	850.4	853.2	855.9	858.1
147.5°	872.8	872.2	871.6	871.0	870.4	871.4	874.1	876.9	879.6	882.3	883.2
150°	891.4	890.3	889.1	888.0	886.8	887.6	890.2	892.7	895.3	897.9	898.8
152.5°	907.0	905.7	904.4	903.2	902.0	902.5	905.0	907.4	909.9	912.4	913.3
155°	929.7	928.3	926.8	925.3	923.9	924.2	926.1	928.0	929.9	931.8	932.8
157.5°	947.5	946.3	945.1	943.8	942.6	942.7	944.0	945.4	946.7	948.1	949.2
160°	957.9	957.0	956.0	955.0	954.0	954.0	955.0	956.0	957.0	957.9	958.9
162.5°	967.2	966.2	965.3	964.2	963.3	963.2	964.1	964.9	965.7	966.6	967.7
165°	979.6	978.7	977.7	976.7	975.7	975.5	976.0	976.4	977.0	977.5	978.6
167.5°	988.9	987.9	987.0	986.0	985.0	984.8	985.2	985.6	986.1	986.6	987.7
170°	994.1	993.1	992.1	991.2	990.2	989.9	990.2	990.5	990.9	991.2	992.3
172.5°	997.5	996.6	995.6	994.7	993.7	993.4	993.7	994.0	994.3	994.7	995.8
175°	1002.0	1000.9	999.8	998.6	997.5	997.1	997.4	997.8	998.1	998.4	999.6
177.5°	1002.7	1001.9	1001.0	1000.1	999.2	998.8	998.9	999.0	999.2	999.3	1000.2
180°	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
2.5°	556.2	556.9	557.6	557.9	557.5	557.3	557.0	556.7
5°	554.5	555.6	556.7	557.1	556.9	556.7	556.6	556.3
7.5°	551.8	553.2	554.4	555.0	554.8	554.6	554.4	554.3
10°	549.5	551.0	552.5	553.0	552.9	552.7	552.5	552.3
12.5°	545.7	547.1	548.6	549.1	549.0	548.8	548.7	548.4
15°	538.6	540.2	541.9	542.6	542.4	542.2	542.0	541.9
17.5°	529.5	531.2	532.9	533.8	533.8	533.8	533.8	533.8
20°	522.4	524.3	526.2	527.3	527.3	527.3	527.3	527.3
22.5°	514.6	516.6	518.5	519.7	519.9	520.2	520.5	520.8
25°	502.5	504.6	506.8	508.1	508.7	509.2	509.8	510.3
27.5°	489.1	491.8	494.6	496.1	496.5	496.9	497.3	497.6
30°	479.7	482.5	485.4	487.1	487.7	488.2	488.7	489.3
32.5°	469.5	472.9	476.1	478.2	479.3	480.2	481.2	482.1
35°	455.1	459.1	463.0	465.6	466.9	468.2	469.4	470.6
37.5°	440.3	444.7	449.1	451.9	453.3	454.6	455.9	457.2
40°	429.8	434.5	439.2	442.4	443.9	445.6	447.2	448.9
42.5°	419.7	424.8	429.9	433.3	434.9	436.6	438.2	439.7
45°	404.2	409.7	415.3	419.0	420.8	422.6	424.4	426.2
47.5°	388.0	393.9	399.7	403.5	405.5	407.5	409.5	411.5
50°	376.9	383.0	389.2	393.2	395.2	397.2	399.1	401.1
52.5°	365.0	371.2	377.5	381.7	383.7	385.9	388.0	390.1
55°	346.9	353.4	359.9	364.2	366.6	368.9	371.3	373.6
57.5°	327.9	334.9	341.8	346.5	348.9	351.3	353.6	356.0
60°	315.3	322.1	329.0	333.7	336.1	338.7	341.2	343.7
62.5°	301.9	309.2	316.5	321.3	323.6	326.0	328.4	330.7
65°	281.6	289.0	296.4	301.2	303.6	305.9	308.2	310.5
67.5°	261.0	268.5	275.9	280.9	283.3	285.7	288.2	290.7
70°	246.8	254.4	262.2	267.1	269.3	271.5	273.6	275.8
72.5°	232.9	240.4	248.0	253.1	255.7	258.3	260.9	263.5
75°	212.0	219.7	227.4	232.4	234.8	237.1	239.5	241.8
77.5°	191.5	199.2	206.9	212.0	214.5	217.1	219.5	222.0
80°	177.6	185.2	192.7	197.8	200.3	202.8	205.3	207.9
82.5°	164.7	172.2	179.8	184.7	187.1	189.5	191.9	194.2
85°	146.1	153.7	161.2	166.2	168.7	171.3	173.8	176.3
87.5°	133.7	141.2	148.7	153.6	156.0	158.4	160.7	163.0
90°	137.2	145.2	153.2	158.4	160.9	163.3	165.9	168.3
92.5°	132.6	140.1	147.6	152.5	154.8	157.2	159.5	161.8
95°	136.5	144.1	151.8	156.5	158.6	160.6	162.6	164.5
97.5°	138.4	145.7	153.0	157.8	160.1	162.4	164.7	167.1
100°	138.0	145.9	153.8	159.0	161.3	163.6	165.9	168.2
102.5°	135.1	143.3	151.5	156.8	159.1	161.6	164.1	166.4
105°	129.8	137.8	145.9	151.2	153.8	156.5	159.1	161.8
107.5°	133.2	137.4	141.6	145.0	147.7	150.4	153.0	155.6
110°	165.0	154.6	144.3	140.5	143.1	145.8	148.4	151.0



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CATALOG NUMBER: SA2XXDIP-C675D925U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	268.1	215.2	162.2	137.0	139.5	142.0	144.5	147.0
115°	356.8	287.8	218.7	179.4	169.8	160.2	150.6	141.0
117.5°	511.0	498.3	485.6	461.1	424.9	388.7	352.5	316.3
120°	582.3	589.2	596.2	589.8	570.1	550.3	530.6	510.9
122.5°	610.7	616.7	622.8	624.6	622.0	619.5	617.0	614.4
125°	650.8	656.8	662.7	666.8	668.9	671.0	673.1	675.2
127.5°	687.5	693.6	699.7	703.5	705.2	706.9	708.6	710.3
130°	710.7	716.8	722.9	726.6	727.9	729.1	730.5	731.7
132.5°	733.2	738.9	744.7	748.1	749.4	750.7	751.9	753.2
135°	765.6	771.0	776.3	779.6	780.7	781.8	782.9	784.0
137.5°	795.4	800.3	805.1	807.9	808.6	809.2	809.9	810.6
140°	814.8	819.1	823.4	825.8	826.0	826.2	826.6	826.8
142.5°	833.5	837.1	840.7	842.6	842.7	842.9	843.0	843.1
145°	860.3	862.5	864.7	865.9	865.9	866.0	866.2	866.3
147.5°	884.2	885.2	886.1	886.5	886.3	886.1	885.8	885.6
150°	899.8	900.8	901.7	901.8	901.0	900.2	899.4	898.6
152.5°	914.3	915.2	916.2	916.2	915.0	914.0	913.0	911.9
155°	933.8	934.8	935.7	935.6	934.3	933.0	931.7	930.4
157.5°	950.2	951.3	952.4	952.4	951.1	949.8	948.6	947.4
160°	959.8	960.8	961.8	961.7	960.5	959.4	958.3	957.2
162.5°	968.8	969.9	971.0	970.8	969.5	968.0	966.7	965.3
165°	979.7	980.8	981.9	981.9	980.8	979.7	978.6	977.5
167.5°	988.8	989.9	991.1	990.9	989.4	988.0	986.6	985.1
170°	993.5	994.6	995.7	995.5	994.1	992.6	991.2	989.8
172.5°	996.9	998.1	999.2	999.0	997.5	996.1	994.7	993.2
175°	1000.7	1001.8	1002.9	1002.7	1001.1	999.5	997.8	996.2
177.5°	1001.1	1002.0	1002.9	1002.7	1001.6	1000.4	999.3	998.1
180°	999.9	999.9	999.9	999.9	999.9	999.9	999.9	999.9

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