

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: P332575-830

Luminaire Tested: **SA4XXDIP-C575D1205U830-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332575-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C575D1205U830-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6165.2 lumens
Efficiency: N/A
Efficacy: 124.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

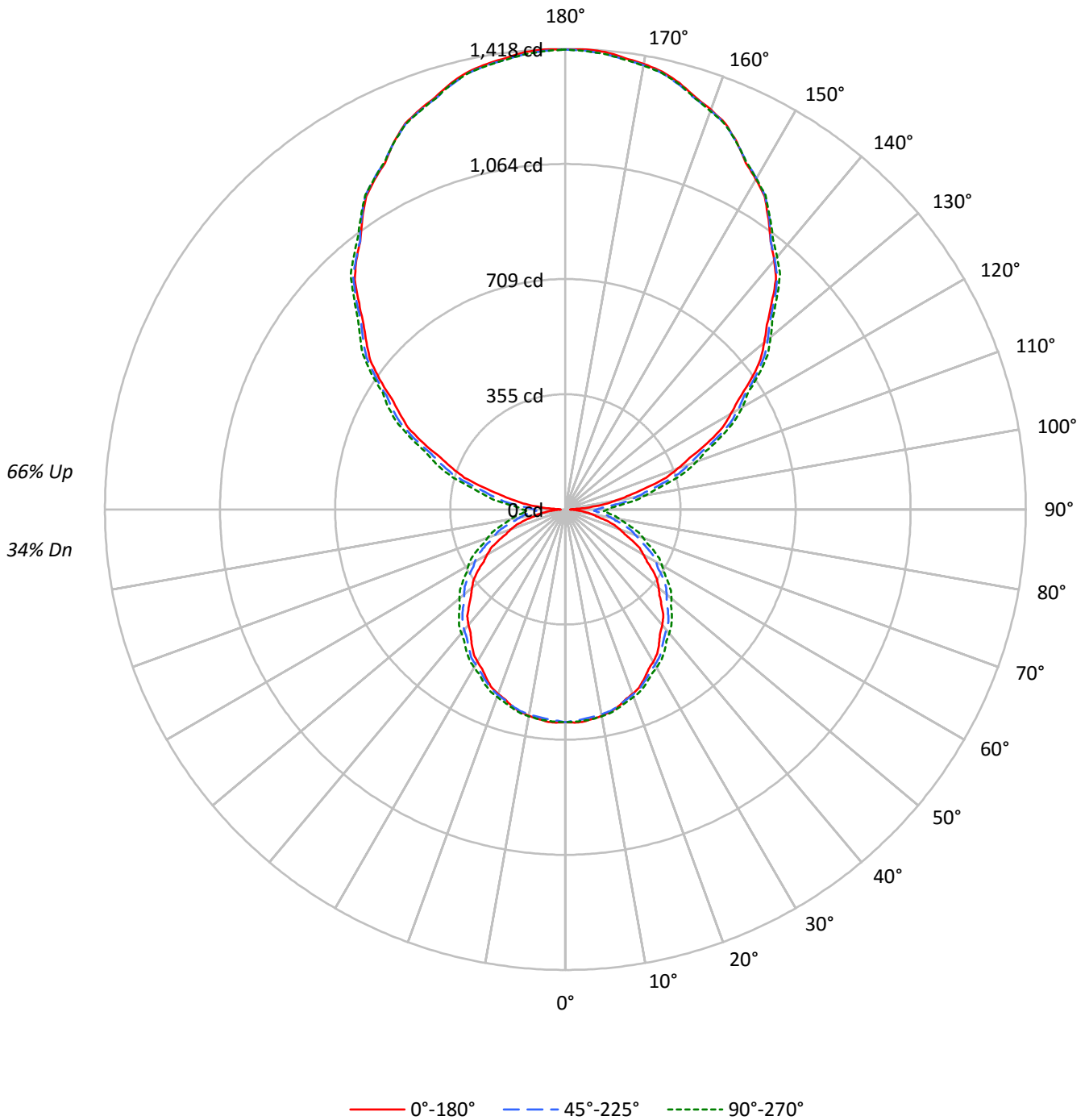
Input Watts (W): 49.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	34
1	93	89	85	81	84	80	77	74	64	61	59	49	47	46	35	34	33	27
2	85	77	71	66	76	70	64	60	56	52	48	43	40	38	30	29	27	22
3	77	68	60	54	69	61	55	50	49	44	40	37	34	32	27	25	23	18
4	70	60	52	46	63	54	47	42	43	38	34	33	30	27	24	21	20	15
5	64	53	45	39	58	48	41	36	38	33	29	30	26	23	21	19	17	13
6	59	47	39	33	53	43	36	31	34	29	25	27	23	20	19	17	15	12
7	55	42	35	29	49	38	32	27	31	26	22	24	20	17	17	15	13	10
8	51	38	31	25	45	35	28	23	28	23	19	22	18	15	16	13	12	9
9	47	35	27	22	42	32	25	21	26	21	17	20	16	14	15	12	10	8
10	44	32	25	20	39	29	23	18	24	19	15	18	15	12	14	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5288	5288	5288
5°	5304	5168	5182
10°	5272	5083	5079
15°	5225	4985	4958
20°	5153	4877	4840
25°	5073	4756	4710
30°	4986	4636	4576
35°	4887	4512	4460
40°	4809	4395	4338
45°	4692	4287	4233
50°	4593	4163	4123
55°	4491	4045	3993
60°	4332	3894	3876
65°	4156	3735	3731
70°	3945	3551	3561
75°	3649	3349	3408
80°	3322	3156	3259
85°	2903	2980	3172



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.0	1.0
10°-20°	177.7	2.9
20°-30°	268.7	4.4
30°-40°	325.1	5.3
40°-50°	343.7	5.6
50°-60°	323.5	5.2
60°-70°	268.4	4.4
70°-80°	188.5	3.1
80°-90°	110.8	1.8
90°-100°	156.7	2.5
100°-110°	323.5	5.2
110°-120°	501.0	8.1
120°-130°	636.9	10.3
130°-140°	703.0	11.4
140°-150°	684.8	11.1
150°-160°	574.7	9.3
160°-170°	382.4	6.2
170°-180°	133.9	2.2
0°-30°	508.4	8.2
0°-40°	833.5	13.5
0°-60°	1500.7	24.3
0°-90°	2068.4	33.5
90°-120°	981.2	15.9
90°-150°	3005.9	48.8
90°-180°	4097.0	66.5
0°-180°	6165.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	655	655	655	655	655	
5°	656	653	648	654	654	62
15°	629	629	627	633	633	177
25°	575	579	582	589	590	265
35°	503	512	519	529	532	315
45°	420	433	447	459	464	324
55°	329	344	366	380	385	293
65°	227	251	276	293	300	225
75°	126	153	184	204	211	134
85°	39	70	103	124	132	41
90°	15	56	97	124	133	12
95°	75	110	147	169	177	81
105°	262	278	309	330	340	278
115°	482	489	510	524	529	475
125°	698	699	715	726	729	622
135°	898	905	910	919	921	695
145°	1090	1094	1095	1098	1098	682
155°	1248	1248	1247	1251	1247	574
165°	1359	1356	1354	1359	1356	383
175°	1414	1408	1407	1414	1407	134
180°	1416	1416	1416	1416	1416	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
2.5°	657.3	657.0	656.6	656.1	655.7	655.1	654.0	653.0	651.9	650.8	651.8
5°	655.7	655.3	654.7	654.2	653.7	652.9	651.8	650.6	649.5	648.4	649.7
7.5°	650.2	649.8	649.5	649.2	648.9	648.4	647.4	646.5	645.5	644.5	646.0
10°	645.5	645.3	645.1	645.0	644.8	644.3	643.5	642.6	641.9	641.0	642.5
12.5°	638.9	638.9	638.9	638.9	638.9	638.6	638.0	637.4	636.9	636.3	637.6
15°	628.6	628.8	628.9	629.1	629.2	629.1	628.6	628.1	627.5	627.1	628.6
17.5°	614.3	614.8	615.3	615.8	616.3	616.5	616.4	616.3	616.2	616.1	617.6
20°	604.4	604.8	605.3	605.9	606.3	606.6	606.8	607.0	607.1	607.3	608.9
22.5°	593.2	593.8	594.5	595.0	595.7	596.2	596.4	596.7	597.0	597.3	599.0
25°	575.0	576.0	577.0	578.0	578.9	579.7	580.1	580.6	581.2	581.6	583.4
27.5°	554.8	556.2	557.6	559.1	560.5	561.6	562.3	563.1	563.8	564.6	566.3
30°	541.3	542.6	543.8	545.2	546.5	547.7	548.8	550.0	551.1	552.3	554.1
32.5°	526.6	528.2	529.7	531.3	532.9	534.3	535.6	536.9	538.1	539.4	541.4
35°	503.1	505.1	507.1	509.0	511.0	512.7	514.3	516.0	517.6	519.2	521.6
37.5°	479.6	481.7	484.0	486.3	488.5	490.7	492.7	494.7	496.7	498.7	501.1
40°	464.3	466.4	468.5	470.6	472.8	474.9	477.2	479.5	481.8	484.1	486.5
42.5°	446.7	449.0	451.4	453.8	456.2	458.7	461.4	464.0	466.7	469.4	472.1
45°	419.5	422.6	425.7	428.9	431.9	435.0	438.1	441.2	444.3	447.4	450.2
47.5°	393.6	396.7	399.9	403.1	406.3	409.7	413.3	416.9	420.5	424.0	427.0
50°	374.8	378.3	381.9	385.6	389.2	392.8	396.3	399.9	403.5	407.1	410.3
52.5°	356.0	359.6	363.2	366.7	370.3	374.2	378.3	382.4	386.5	390.6	393.9
55°	328.6	332.0	335.5	338.8	342.2	346.4	351.3	356.2	361.1	366.0	369.3
57.5°	297.9	302.2	306.4	310.7	314.9	319.4	324.2	329.1	334.0	338.8	342.7
60°	278.0	282.2	286.4	290.7	294.9	299.7	305.1	310.5	315.8	321.2	325.0
62.5°	258.6	263.3	267.9	272.5	277.1	282.1	287.5	292.8	298.3	303.7	307.4
65°	227.3	232.6	237.8	243.0	248.3	253.6	259.1	264.7	270.2	275.8	279.8
67.5°	197.3	202.8	208.4	214.0	219.4	225.2	231.1	237.0	243.0	248.9	253.1
70°	176.7	182.3	187.8	193.4	199.0	204.8	210.9	217.2	223.4	229.6	233.9
72.5°	156.8	162.5	168.1	173.8	179.5	185.6	192.2	198.8	205.4	212.0	216.2
75°	126.1	132.1	138.2	144.2	150.2	156.7	163.5	170.4	177.3	184.1	188.7
77.5°	97.6	104.0	110.4	116.7	123.1	129.9	137.0	144.2	151.4	158.5	163.2
80°	79.9	86.4	93.0	99.5	106.0	112.8	120.1	127.2	134.4	141.6	146.5
82.5°	62.3	69.1	75.9	82.7	89.4	96.4	103.6	110.7	117.9	125.2	130.2
85°	38.8	45.7	52.6	59.4	66.3	73.3	80.7	88.0	95.4	102.6	107.5
87.5°	22.3	29.6	36.8	43.9	51.1	58.4	66.0	73.5	81.1	88.6	93.6
90°	15.0	24.2	33.4	42.6	51.8	60.9	69.8	78.8	87.8	96.7	102.9
92.5°	34.6	43.5	52.4	61.4	70.3	79.0	87.4	95.7	104.1	112.4	117.9
95°	75.2	82.8	90.4	97.9	105.5	113.5	121.9	130.3	138.6	147.0	152.1
97.5°	123.4	129.8	136.2	142.5	148.9	156.5	165.0	173.6	182.3	190.9	196.0
100°	161.4	166.5	171.8	177.0	182.2	189.1	197.7	206.2	214.7	223.3	228.2
102.5°	201.7	205.8	209.9	214.0	218.1	224.2	232.5	240.7	248.9	257.1	262.1
105°	261.7	265.2	268.7	272.3	275.8	281.0	288.0	295.0	302.0	309.1	313.9
107.5°	326.2	329.1	332.2	335.1	338.1	342.5	348.4	354.2	360.1	365.9	370.6
110°	369.4	372.2	374.9	377.8	380.5	384.7	390.1	395.5	401.0	406.4	409.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	414.4	416.5	418.6	420.8	422.8	426.4	431.4	436.4	441.5	446.5	450.0
115°	481.8	483.3	484.7	486.3	487.7	490.8	495.5	500.3	505.0	509.7	513.0
117.5°	546.1	547.1	548.3	549.3	550.4	553.2	557.7	562.2	566.8	571.3	573.8
120°	588.4	589.8	591.4	592.8	594.3	597.0	601.0	605.0	609.0	613.0	615.0
122.5°	633.1	633.6	634.0	634.5	635.1	637.3	641.5	645.6	649.7	653.8	656.3
125°	698.3	698.1	698.0	697.8	697.7	699.5	703.3	707.1	711.0	714.8	717.4
127.5°	757.9	758.5	759.0	759.6	760.2	761.9	764.6	767.3	770.1	772.8	775.2
130°	799.4	799.9	800.5	801.1	801.6	803.2	805.9	808.4	811.1	813.7	816.1
132.5°	842.4	842.7	843.1	843.5	843.8	844.9	846.9	848.8	850.6	852.5	854.8
135°	898.3	899.8	901.3	902.7	904.2	905.4	906.6	907.8	908.9	910.0	912.1
137.5°	960.1	960.5	961.1	961.6	962.1	962.9	963.8	964.8	965.7	966.7	968.4
140°	1001.3	1001.5	1001.9	1002.2	1002.6	1002.8	1003.0	1003.1	1003.2	1003.4	1005.3
142.5°	1038.3	1038.8	1039.2	1039.7	1040.1	1040.2	1039.9	1039.6	1039.3	1039.1	1040.8
145°	1090.3	1091.1	1091.9	1092.7	1093.5	1094.1	1094.3	1094.6	1094.8	1095.0	1095.8
147.5°	1142.0	1143.0	1144.0	1145.0	1146.0	1146.4	1146.2	1146.0	1145.8	1145.7	1145.6
150°	1173.6	1174.3	1175.2	1175.9	1176.8	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1
152.5°	1202.7	1203.2	1203.8	1204.4	1204.9	1205.3	1205.5	1205.7	1205.9	1206.1	1206.6
155°	1248.3	1248.3	1248.3	1248.3	1248.3	1248.2	1248.0	1247.7	1247.5	1247.3	1248.2
157.5°	1286.9	1286.5	1286.0	1285.6	1285.2	1284.9	1284.9	1284.8	1284.8	1284.7	1285.4
160°	1309.7	1309.5	1309.2	1308.9	1308.7	1308.4	1308.2	1308.0	1307.7	1307.5	1308.2
162.5°	1330.7	1330.0	1329.5	1328.8	1328.1	1327.8	1327.5	1327.3	1327.0	1326.7	1328.0
165°	1359.0	1358.2	1357.4	1356.8	1356.0	1355.4	1354.9	1354.4	1354.0	1353.5	1354.9
167.5°	1380.6	1379.6	1378.6	1377.5	1376.6	1376.0	1376.1	1376.1	1376.2	1376.2	1377.7
170°	1392.9	1391.7	1390.4	1389.2	1388.0	1387.5	1387.8	1388.0	1388.3	1388.6	1390.0
172.5°	1401.7	1400.6	1399.6	1398.5	1397.6	1397.0	1397.1	1397.2	1397.2	1397.3	1398.9
175°	1413.7	1412.5	1411.3	1410.0	1408.8	1408.1	1407.9	1407.6	1407.4	1407.1	1408.8
177.5°	1417.7	1416.6	1415.7	1414.8	1413.7	1413.2	1413.2	1413.2	1413.2	1413.2	1414.7
180°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
2.5°	652.7	653.6	654.5	654.9	654.8	654.6	654.5	654.4
5°	651.0	652.2	653.6	654.1	654.0	653.8	653.7	653.5
7.5°	647.5	648.9	650.4	651.1	650.9	650.7	650.5	650.4
10°	643.9	645.5	646.9	647.5	647.4	647.2	647.1	646.9
12.5°	639.0	640.4	641.7	642.3	642.3	642.2	642.2	642.2
15°	630.0	631.5	632.9	633.6	633.5	633.3	633.1	632.9
17.5°	619.1	620.6	622.1	622.7	622.6	622.5	622.4	622.3
20°	610.6	612.2	613.8	614.6	614.6	614.6	614.6	614.6
22.5°	600.6	602.2	603.8	604.8	605.0	605.3	605.6	605.9
25°	585.2	587.0	588.8	589.7	589.9	590.1	590.2	590.4
27.5°	568.0	569.6	571.3	572.2	572.4	572.6	572.8	573.0
30°	555.9	557.7	559.5	560.5	560.8	561.2	561.5	561.8
32.5°	543.5	545.5	547.6	548.7	549.1	549.4	549.8	550.1
35°	523.9	526.1	528.4	529.8	530.3	530.7	531.2	531.8
37.5°	503.4	505.7	508.0	509.4	509.9	510.5	511.0	511.5
40°	489.0	491.4	493.9	495.4	496.1	496.7	497.4	498.0
42.5°	474.9	477.5	480.2	481.8	482.4	482.9	483.4	483.9
45°	453.0	455.7	458.5	460.2	461.1	461.9	462.7	463.5
47.5°	429.8	432.7	435.5	437.4	438.5	439.4	440.5	441.4
50°	413.6	416.9	420.1	422.3	423.2	424.1	425.2	426.1
52.5°	397.2	400.4	403.7	405.8	406.8	407.7	408.7	409.7
55°	372.5	375.8	379.0	381.2	382.1	383.1	384.1	385.0
57.5°	346.6	350.5	354.4	356.8	357.7	358.5	359.5	360.4
60°	328.8	332.5	336.2	338.7	340.1	341.4	342.7	344.0
62.5°	311.1	314.9	318.7	321.1	322.4	323.8	325.1	326.4
65°	283.9	288.0	292.1	294.7	296.1	297.4	298.7	300.0
67.5°	257.2	261.4	265.5	268.2	269.5	270.7	272.0	273.2
70°	238.4	242.8	247.1	250.0	251.1	252.2	253.4	254.5
72.5°	220.5	224.8	229.0	231.8	233.1	234.3	235.6	236.9
75°	193.2	197.7	202.4	205.4	206.8	208.3	209.8	211.2
77.5°	167.9	172.5	177.1	180.2	181.7	183.3	184.8	186.4
80°	151.4	156.2	161.1	164.2	165.5	166.8	168.1	169.5
82.5°	135.2	140.2	145.2	148.5	149.9	151.3	152.7	154.2
85°	112.4	117.3	122.2	125.5	127.1	128.8	130.4	132.1
87.5°	98.6	103.7	108.7	112.0	113.5	115.0	116.5	118.1
90°	109.1	115.3	121.5	125.5	127.2	129.0	130.8	132.6
92.5°	123.4	128.8	134.3	137.9	139.5	141.1	142.7	144.3
95°	157.3	162.4	167.6	170.9	172.3	173.8	175.2	176.7
97.5°	201.1	206.3	211.5	214.7	216.1	217.5	219.0	220.4
100°	233.1	238.0	242.8	245.8	246.9	248.2	249.3	250.4
102.5°	267.0	272.0	276.9	280.1	281.6	283.0	284.6	286.1
105°	318.7	323.5	328.3	331.7	333.7	335.7	337.8	339.8
107.5°	375.2	379.9	384.7	387.6	388.7	389.8	391.0	392.0
110°	413.0	416.2	419.5	422.2	424.1	426.2	428.3	430.3



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CATALOG NUMBER: SA4XXDIP-C575D1205U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	453.5	457.0	460.5	463.0	464.5	465.9	467.4	468.8
115°	516.4	519.7	523.1	525.2	526.1	527.0	527.9	528.8
117.5°	576.4	578.9	581.5	583.2	584.0	584.8	585.6	586.4
120°	617.1	619.2	621.1	623.1	624.9	626.7	628.5	630.3
122.5°	658.7	661.2	663.5	665.0	665.2	665.5	665.8	666.1
125°	720.0	722.6	725.2	726.8	727.3	727.7	728.3	728.8
127.5°	777.7	780.1	782.6	784.2	784.9	785.6	786.4	787.0
130°	818.6	821.0	823.5	824.7	824.7	824.7	824.7	824.7
132.5°	857.1	859.4	861.8	863.2	863.8	864.4	865.0	865.5
135°	914.3	916.3	918.5	919.6	919.9	920.2	920.4	920.7
137.5°	970.2	971.9	973.6	975.0	975.9	976.9	977.9	978.8
140°	1007.2	1009.1	1011.0	1012.2	1012.8	1013.3	1013.9	1014.5
142.5°	1042.6	1044.5	1046.3	1047.5	1048.1	1048.8	1049.4	1050.1
145°	1096.6	1097.2	1098.0	1098.3	1098.3	1098.2	1098.1	1098.0
147.5°	1145.5	1145.5	1145.4	1145.5	1145.8	1146.0	1146.3	1146.6
150°	1177.1	1177.1	1177.1	1177.0	1176.8	1176.6	1176.3	1176.1
152.5°	1207.2	1207.9	1208.4	1208.4	1207.8	1207.1	1206.5	1205.9
155°	1249.2	1250.2	1251.1	1251.1	1250.2	1249.2	1248.2	1247.3
157.5°	1286.2	1286.9	1287.6	1287.6	1286.8	1285.9	1285.1	1284.3
160°	1308.9	1309.7	1310.4	1310.1	1308.9	1307.7	1306.6	1305.3
162.5°	1329.4	1330.7	1332.0	1332.1	1330.9	1329.6	1328.4	1327.2
165°	1356.4	1357.8	1359.3	1359.5	1358.6	1357.6	1356.6	1355.7
167.5°	1379.1	1380.6	1382.1	1382.1	1380.5	1379.0	1377.5	1376.0
170°	1391.5	1392.9	1394.4	1394.2	1392.5	1390.8	1389.1	1387.4
172.5°	1400.6	1402.2	1403.9	1403.9	1402.1	1400.4	1398.7	1397.0
175°	1410.5	1412.2	1413.9	1413.9	1412.2	1410.5	1408.8	1407.1
177.5°	1416.0	1417.4	1418.7	1418.6	1417.0	1415.5	1413.9	1412.4
180°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9

(END OF REPORT)