

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: P332911

Luminaire Tested: **SA4XXRDIP-C575D810U835-4F0-1E-UDD-F1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332911
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: SA4XXRDIP-C575D810U835-4F0-1E-UDD-F1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

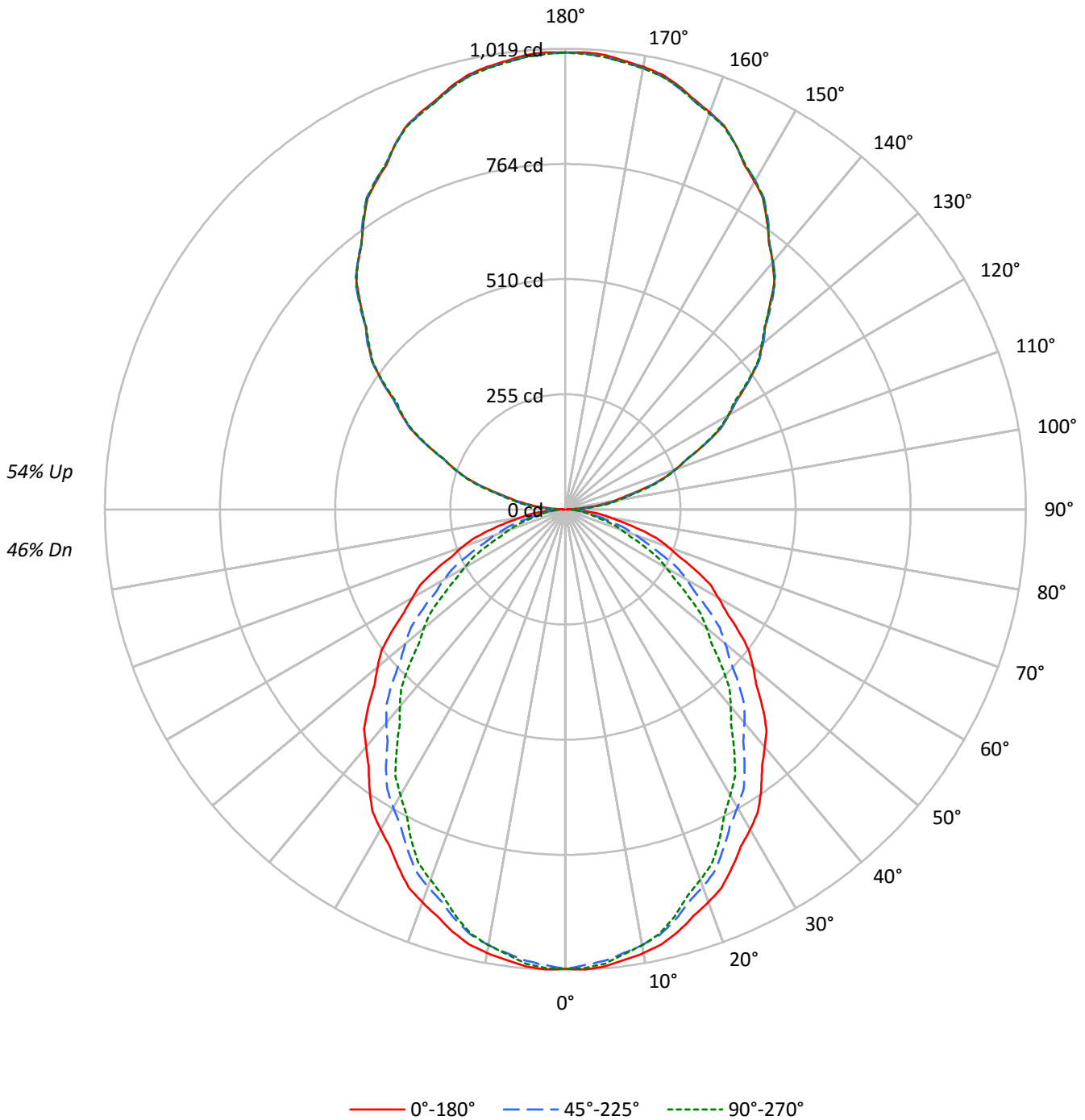
Lumens per Lamp: N/A
Luminaire Lumens: 5155.6 lumens
Efficiency: N/A
Efficacy: 134.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

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



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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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	46				46
1	97	93	89	86	89	85	82	79	71	69	67	58	57	55	46	45	44				39	
2	89	81	75	70	81	75	70	65	63	59	56	51	49	47	41	39	38				33	
3	81	72	65	59	74	66	60	55	55	51	47	46	42	40	37	34	32				28	
4	74	64	56	50	68	59	52	47	49	44	40	41	37	34	33	30	28				24	
5	68	57	49	43	62	52	45	40	44	39	35	37	33	30	30	27	25				21	
6	63	51	43	37	57	47	40	35	40	35	30	33	29	26	27	24	22				19	
7	58	46	38	33	53	43	36	31	36	31	27	30	26	23	25	22	19				17	
8	54	42	34	29	49	39	32	27	33	28	24	28	24	21	23	20	17				15	
9	50	38	31	26	46	35	29	24	30	25	21	26	21	19	21	18	16				14	
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	17	14				12	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8205	8205	8205
5°	8223	8122	8173
10°	8171	8025	8025
15°	8078	7856	7798
20°	7948	7635	7494
25°	7784	7375	7187
30°	7623	7101	6804
35°	7447	6818	6419
40°	7233	6495	6003
45°	7036	6174	5579
50°	6812	5805	5130
55°	6572	5422	4643
60°	6307	5000	4146
65°	6065	4474	3656
70°	5712	3895	3104
75°	5268	3228	2523
80°	4593	2459	2315
85°	3890	2232	2093



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.5	1.9
10°-20°	266.2	5.2
20°-30°	384.4	7.5
30°-40°	435.7	8.5
40°-50°	420.8	8.2
50°-60°	349.9	6.8
60°-70°	241.6	4.7
70°-80°	122.5	2.4
80°-90°	34.4	0.7
90°-100°	66.7	1.3
100°-110°	197.5	3.8
110°-120°	335.2	6.5
120°-130°	442.0	8.6
130°-140°	496.4	9.6
140°-150°	487.8	9.5
150°-160°	410.3	8.0
160°-170°	273.0	5.3
170°-180°	95.6	1.9
0°-30°	746.1	14.5
0°-40°	1181.8	22.9
0°-60°	1952.5	37.9
0°-90°	2351.0	45.6
90°-120°	599.4	11.6
90°-150°	2025.7	39.3
90°-180°	2805.0	54.4
0°-180°	5155.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1016	1016	1016	1016	1016	
5°	1015	1011	1002	1010	1008	96
15°	966	959	940	938	933	272
25°	874	859	828	815	807	402
35°	756	730	692	666	651	472
45°	616	586	541	504	489	475
55°	467	435	385	346	330	418
65°	318	283	234	202	191	313
75°	169	140	104	86	81	178
85°	42	27	24	23	23	47
90°	2	11	17	22	24	5
95°	47	54	59	62	62	52
105°	182	183	186	188	191	193
115°	341	341	339	338	338	336
125°	496	496	496	494	492	442
135°	640	645	645	643	641	495
145°	778	781	782	781	779	487
155°	891	891	890	893	890	410
165°	970	968	966	971	968	273
175°	1009	1006	1005	1010	1005	96
180°	1011	1011	1011	1011	1011	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3
2.5°	1018.8	1018.2	1017.7	1017.1	1016.6	1015.5	1014.0	1012.5	1010.9	1009.4	1010.9
5°	1014.7	1014.0	1013.3	1012.6	1012.0	1010.6	1008.5	1006.4	1004.3	1002.3	1004.0
7.5°	1005.5	1004.8	1004.1	1003.4	1002.6	1000.9	998.2	995.5	992.8	990.1	991.2
10°	996.8	996.0	995.1	994.2	993.4	991.4	988.3	985.1	982.0	978.9	979.6
12.5°	985.6	984.6	983.6	982.6	981.6	979.3	975.6	971.9	968.3	964.6	965.0
15°	966.5	964.9	963.4	961.8	960.2	957.3	953.0	948.7	944.3	940.0	939.7
17.5°	943.3	941.0	938.8	936.5	934.3	930.6	925.4	920.2	915.0	909.8	908.9
20°	925.2	923.0	920.7	918.5	916.2	912.2	906.3	900.4	894.5	888.7	887.3
22.5°	905.3	902.8	900.3	897.7	895.2	890.8	884.5	878.2	871.9	865.6	863.5
25°	873.9	870.8	867.6	864.5	861.4	856.3	849.2	842.1	835.0	828.0	825.0
27.5°	840.9	837.0	833.1	829.2	825.2	819.5	811.9	804.4	796.8	789.2	785.6
30°	817.8	813.5	809.2	804.9	800.6	794.3	786.2	778.1	769.9	761.8	757.5
32.5°	793.6	788.7	783.8	778.9	774.1	767.4	759.0	750.6	742.2	733.8	728.8
35°	755.6	750.1	744.5	739.0	733.5	726.4	717.7	709.1	700.4	691.8	685.9
37.5°	715.0	709.3	703.6	697.9	692.1	684.5	674.9	665.3	655.8	646.2	639.6
40°	686.3	680.6	674.9	669.2	663.5	655.7	645.9	636.0	626.2	616.3	609.0
42.5°	658.9	653.0	647.0	641.0	635.0	626.9	616.6	606.3	596.1	585.8	578.4
45°	616.3	609.9	603.5	597.1	590.7	582.3	571.9	561.6	551.2	540.8	532.3
47.5°	572.3	565.7	559.0	552.4	545.8	537.1	526.3	515.6	504.8	494.0	485.2
50°	542.4	535.6	528.9	522.1	515.4	506.5	495.4	484.4	473.3	462.2	453.6
52.5°	511.9	505.3	498.7	492.1	485.4	476.5	465.1	453.8	442.4	431.1	422.3
55°	466.9	460.0	453.1	446.1	439.2	430.1	418.9	407.7	396.4	385.2	376.2
57.5°	422.4	415.2	408.0	400.8	393.6	384.5	373.4	362.3	351.3	340.2	331.1
60°	390.6	383.7	376.8	369.9	363.0	354.0	342.9	331.8	320.8	309.7	300.7
62.5°	362.0	354.8	347.6	340.4	333.2	324.0	312.6	301.3	289.9	278.6	270.3
65°	317.5	310.1	302.6	295.2	287.7	278.5	267.4	256.4	245.3	234.2	226.8
67.5°	271.3	264.1	257.0	249.9	242.8	234.1	223.8	213.5	203.3	193.0	186.6
70°	242.0	234.7	227.5	220.2	213.0	204.4	194.5	184.7	174.8	165.0	159.3
72.5°	210.9	204.3	197.7	191.2	184.6	176.7	167.4	158.1	148.7	139.4	134.6
75°	168.9	162.5	156.1	149.7	143.3	136.0	127.9	119.7	111.6	103.5	99.5
77.5°	126.2	120.8	115.4	109.9	104.5	98.5	91.9	85.4	78.8	72.2	69.9
80°	98.8	93.8	88.8	83.8	78.8	73.7	68.5	63.3	58.1	52.9	52.4
82.5°	75.2	70.6	66.0	61.4	56.8	53.0	50.0	47.0	44.1	41.1	40.7
85°	42.0	38.6	35.1	31.6	28.2	26.2	25.7	25.2	24.6	24.1	23.8
87.5°	14.8	14.1	13.3	12.6	11.9	11.6	11.7	11.9	12.0	12.2	12.2
90°	2.3	4.3	6.2	8.1	10.0	11.6	13.0	14.4	15.8	17.2	18.2
92.5°	16.7	18.9	21.1	23.3	25.5	27.1	28.0	29.0	30.0	31.0	31.6
95°	46.9	48.5	50.0	51.6	53.2	54.6	55.8	57.0	58.2	59.4	59.9
97.5°	81.9	83.2	84.4	85.7	86.9	88.3	89.7	91.1	92.5	94.0	94.6
100°	109.5	110.1	110.8	111.5	112.2	113.4	114.9	116.5	118.0	119.6	120.0
102.5°	138.2	138.5	138.8	139.1	139.3	140.2	141.6	143.0	144.5	145.9	146.4
105°	182.2	182.3	182.5	182.7	182.9	183.3	184.0	184.7	185.4	186.1	186.6
107.5°	228.3	228.5	228.7	228.9	229.1	229.3	229.4	229.5	229.6	229.7	230.2
110°	259.6	259.9	260.2	260.6	260.9	261.0	260.9	260.7	260.5	260.3	260.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	292.1	292.1	292.2	292.3	292.4	292.2	291.9	291.6	291.3	291.0	290.9
115°	340.9	340.9	340.9	340.9	340.9	340.7	340.3	340.0	339.6	339.3	339.1
117.5°	386.8	387.0	387.1	387.2	387.4	387.3	387.1	386.8	386.6	386.4	385.8
120°	417.5	418.2	418.9	419.6	420.3	420.3	419.8	419.3	418.8	418.3	417.4
122.5°	449.4	449.6	449.9	450.2	450.5	450.5	450.3	450.0	449.8	449.5	448.9
125°	496.4	496.4	496.4	496.4	496.4	496.3	496.2	496.0	495.8	495.7	495.3
127.5°	539.1	539.6	540.2	540.7	541.2	541.3	541.0	540.8	540.5	540.2	539.9
130°	569.1	569.7	570.2	570.7	571.2	571.5	571.5	571.5	571.5	571.5	571.1
132.5°	599.8	600.2	600.6	600.9	601.3	601.4	601.3	601.2	601.0	600.9	600.5
135°	640.3	641.3	642.4	643.4	644.5	645.0	645.0	645.0	645.0	645.0	644.6
137.5°	684.4	684.9	685.3	685.8	686.3	686.7	687.0	687.3	687.5	687.8	687.4
140°	713.8	714.1	714.5	714.8	715.2	715.3	715.3	715.3	715.3	715.3	715.2
142.5°	740.7	741.0	741.4	741.7	742.1	742.2	742.0	741.9	741.7	741.6	741.6
145°	777.9	778.6	779.3	780.0	780.7	781.1	781.3	781.4	781.6	781.8	781.6
147.5°	814.8	815.6	816.4	817.3	818.1	818.5	818.3	818.2	818.0	817.9	817.8
150°	837.3	838.0	838.7	839.4	840.1	840.4	840.4	840.4	840.4	840.4	840.4
152.5°	858.6	859.0	859.4	859.8	860.2	860.5	860.6	860.8	860.9	861.1	861.5
155°	891.2	891.2	891.2	891.2	891.2	891.1	891.0	890.8	890.6	890.5	891.1
157.5°	918.8	918.4	918.1	917.8	917.5	917.3	917.3	917.3	917.2	917.2	917.7
160°	935.0	934.8	934.7	934.5	934.3	934.1	934.0	933.8	933.6	933.5	934.0
162.5°	950.0	949.6	949.1	948.7	948.2	947.9	947.7	947.6	947.4	947.2	948.2
165°	970.2	969.7	969.2	968.6	968.1	967.7	967.3	967.0	966.6	966.3	967.3
167.5°	985.7	984.9	984.2	983.5	982.8	982.4	982.4	982.5	982.5	982.5	983.6
170°	994.4	993.6	992.7	991.8	991.0	990.6	990.8	991.0	991.1	991.3	992.3
172.5°	1000.7	1000.0	999.2	998.5	997.8	997.4	997.5	997.5	997.5	997.6	998.7
175°	1009.3	1008.4	1007.5	1006.7	1005.8	1005.3	1005.1	1004.9	1004.8	1004.6	1005.8
177.5°	1012.1	1011.4	1010.7	1010.0	1009.3	1009.0	1009.0	1009.0	1009.0	1009.0	1009.9
180°	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3
2.5°	1012.5	1014.0	1015.5	1016.2	1016.1	1015.9	1015.8	1015.7
5°	1005.7	1007.5	1009.2	1009.9	1009.5	1009.2	1008.8	1008.5
7.5°	992.3	993.4	994.6	994.8	994.3	993.7	993.2	992.6
10°	980.3	981.0	981.7	981.7	981.0	980.3	979.6	978.9
12.5°	965.4	965.8	966.3	966.0	965.0	964.1	963.1	962.1
15°	939.3	939.0	938.6	937.9	936.6	935.4	934.2	933.0
17.5°	907.9	906.9	905.9	904.5	902.7	900.9	899.0	897.2
20°	885.9	884.5	883.1	881.3	879.1	876.8	874.6	872.3
22.5°	861.5	859.4	857.3	855.4	853.5	851.7	849.9	848.0
25°	822.1	819.1	816.2	813.9	812.1	810.4	808.7	806.9
27.5°	781.9	778.3	774.7	771.6	769.1	766.6	764.2	761.7
30°	753.2	748.8	744.5	741.0	738.2	735.4	732.7	729.9
32.5°	723.8	718.8	713.7	709.9	707.3	704.7	702.0	699.4
35°	680.0	674.1	668.3	663.8	660.7	657.5	654.4	651.3
37.5°	633.0	626.5	619.9	615.1	611.9	608.8	605.7	602.6
40°	601.8	594.5	587.2	582.1	578.9	575.8	572.7	569.6
42.5°	571.0	563.6	556.2	550.9	547.6	544.4	541.1	537.9
45°	523.9	515.4	506.9	501.1	498.0	494.9	491.8	488.7
47.5°	476.4	467.6	458.8	452.7	449.3	445.9	442.5	439.0
50°	444.9	436.3	427.6	421.7	418.4	415.1	411.8	408.5
52.5°	413.5	404.7	396.0	389.9	386.4	383.0	379.6	376.2
55°	367.2	358.2	349.2	343.1	339.8	336.5	333.2	329.9
57.5°	321.9	312.8	303.7	297.9	295.4	292.9	290.4	287.9
60°	291.7	282.7	273.7	267.9	265.1	262.3	259.6	256.8
62.5°	262.0	253.7	245.4	240.1	237.9	235.7	233.5	231.3
65°	219.4	211.9	204.5	199.7	197.7	195.6	193.5	191.4
67.5°	180.2	173.8	167.4	163.1	160.8	158.5	156.2	153.9
70°	153.6	147.9	142.1	138.4	136.7	135.0	133.2	131.5
72.5°	129.7	124.8	119.9	116.7	115.1	113.5	111.9	110.3
75°	95.5	91.6	87.6	85.1	84.0	83.0	82.0	80.9
77.5°	67.6	65.3	62.9	61.6	61.3	61.0	60.7	60.4
80°	51.9	51.4	50.8	50.5	50.3	50.1	50.0	49.8
82.5°	40.3	39.9	39.6	39.3	39.1	38.9	38.8	38.6
85°	23.4	23.1	22.7	22.6	22.6	22.6	22.6	22.6
87.5°	12.3	12.4	12.4	12.6	12.8	13.0	13.2	13.4
90°	19.3	20.3	21.4	22.1	22.4	22.8	23.1	23.5
92.5°	32.2	32.8	33.5	33.9	34.1	34.3	34.5	34.7
95°	60.5	61.0	61.5	61.8	61.8	61.8	61.8	61.8
97.5°	95.2	95.8	96.5	96.8	96.8	96.8	96.8	96.8
100°	120.3	120.7	121.0	121.2	121.2	121.2	121.2	121.2
102.5°	146.9	147.3	147.8	148.1	148.3	148.4	148.6	148.7
105°	187.1	187.6	188.1	188.7	189.2	189.7	190.2	190.8
107.5°	230.7	231.1	231.6	231.9	231.8	231.8	231.8	231.7
110°	259.6	259.3	258.9	259.0	259.6	260.1	260.6	261.1



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CATALOG NUMBER: SA4XXRDIP-C575D810U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	290.8	290.8	290.7	290.7	290.8	290.9	291.0	291.1
115°	338.9	338.8	338.6	338.4	338.3	338.1	337.9	337.7
117.5°	385.2	384.6	384.0	383.5	383.2	382.8	382.5	382.1
120°	416.5	415.6	414.8	414.5	414.9	415.2	415.6	415.9
122.5°	448.3	447.8	447.2	446.6	445.9	445.3	444.7	444.1
125°	495.0	494.6	494.3	493.9	493.6	493.2	492.9	492.5
127.5°	539.5	539.2	538.8	538.5	538.2	538.0	537.7	537.4
130°	570.8	570.4	570.1	569.6	568.9	568.2	567.5	566.8
132.5°	600.2	599.8	599.5	599.2	598.9	598.6	598.3	598.1
135°	644.3	643.9	643.6	643.1	642.6	642.1	641.6	641.1
137.5°	686.9	686.5	686.0	685.8	685.9	686.0	686.1	686.3
140°	715.0	714.8	714.6	714.5	714.3	714.1	713.9	713.8
142.5°	741.5	741.5	741.5	741.4	741.4	741.4	741.3	741.3
145°	781.4	781.3	781.1	780.7	780.2	779.7	779.2	778.7
147.5°	817.6	817.5	817.3	817.2	817.0	816.8	816.7	816.5
150°	840.4	840.4	840.4	840.3	840.2	840.0	839.8	839.6
152.5°	861.9	862.3	862.7	862.7	862.3	861.8	861.4	860.9
155°	891.8	892.5	893.2	893.2	892.5	891.8	891.1	890.5
157.5°	918.2	918.8	919.3	919.2	918.7	918.1	917.5	916.9
160°	934.5	935.0	935.5	935.4	934.5	933.6	932.8	931.9
162.5°	949.1	950.0	951.0	951.0	950.1	949.3	948.4	947.5
165°	968.4	969.4	970.5	970.6	969.9	969.2	968.5	967.9
167.5°	984.6	985.7	986.7	986.7	985.6	984.5	983.5	982.4
170°	993.4	994.4	995.5	995.4	994.2	993.0	991.7	990.5
172.5°	999.9	1001.1	1002.3	1002.3	1001.1	999.8	998.6	997.4
175°	1007.0	1008.2	1009.5	1009.5	1008.2	1007.0	1005.8	1004.6
177.5°	1010.9	1011.9	1012.9	1012.8	1011.7	1010.6	1009.5	1008.3
180°	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8

(END OF REPORT)