

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: P332918

Luminaire Tested: **SA4XXRDIP-C575D1035U835-4F0-1E-UDD-F4**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P332918  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA4XXRDIP-C575D1035U835-4F0-1E-UDD-F4  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

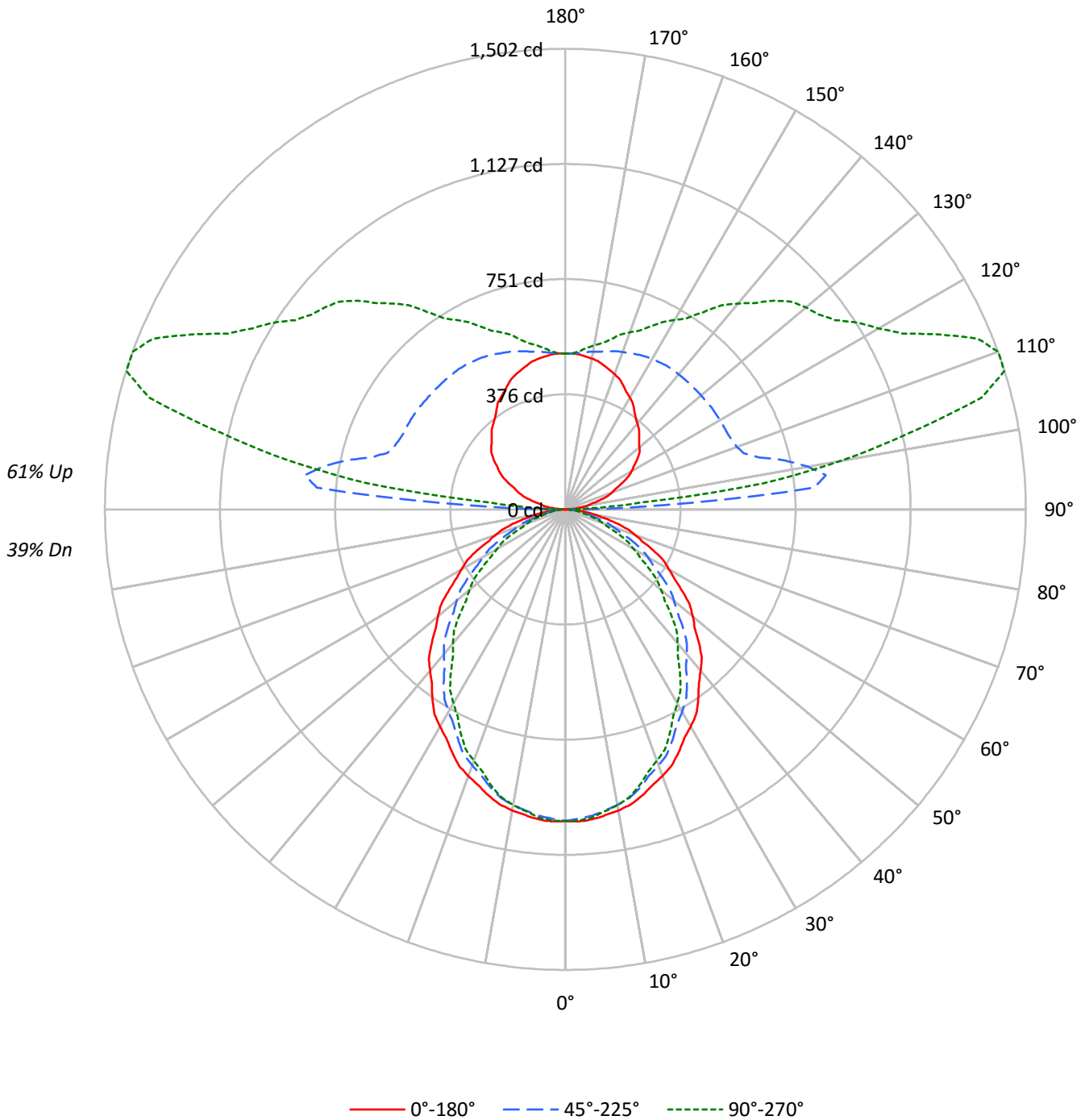
Lumens per Lamp: N/A  
Luminaire Lumens: 6046.5 lumens  
Efficiency: N/A  
Efficacy: 135.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 44.5  
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	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39				
1	96	91	88	84	87	83	80	77	68	66	64	54	52	51	41	40	39	33				
2	87	80	74	69	79	73	68	64	60	56	53	47	45	43	36	35	33	28				
3	80	70	63	58	72	64	58	53	53	48	45	42	39	36	32	30	29	24				
4	73	62	55	49	66	57	50	45	47	42	38	38	34	31	29	27	25	21				
5	67	56	48	42	61	51	44	39	42	37	33	34	30	27	26	24	22	18				
6	62	50	42	36	56	46	39	34	38	33	29	31	27	24	24	21	19	16				
7	57	45	37	32	52	41	34	30	34	29	25	28	24	21	22	19	17	14				
8	53	41	33	28	48	38	31	26	31	26	23	25	22	19	20	17	15	13				
9	49	37	30	25	45	34	28	23	29	24	20	23	20	17	18	16	14	12				
10	46	34	27	22	42	31	25	21	26	22	18	22	18	15	17	14	13	11				

**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	1.6
10°-20°	266.2	4.4
20°-30°	384.4	6.4
30°-40°	435.7	7.2
40°-50°	420.8	7.0
50°-60°	349.9	5.8
60°-70°	241.6	4.0
70°-80°	122.5	2.0
80°-90°	34.2	0.6
90°-100°	367.0	6.1
100°-110°	763.9	12.6
110°-120°	684.2	11.3
120°-130°	575.5	9.5
130°-140°	479.9	7.9
140°-150°	366.6	6.1
150°-160°	257.7	4.3
160°-170°	151.6	2.5
170°-180°	49.3	0.8
0°-30°	746.1	12.3
0°-40°	1181.8	19.5
0°-60°	1952.5	32.3
0°-90°	2350.8	38.9
90°-120°	1815.1	30.0
90°-150°	3237.1	53.5
90°-180°	3696.0	61.1
0°-180°	6046.5	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°	1	8	18	20	21	4
95°	33	104	814	403	244	37
105°	117	169	655	1410	1405	125
115°	206	258	584	1122	1349	204
125°	286	340	581	955	1076	255
135°	340	405	576	848	962	263
145°	392	449	573	715	786	246
155°	446	482	557	631	658	206
165°	486	501	534	566	574	137
175°	507	508	512	519	517	48
180°	508	508	508	508	508	



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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°	14.5	13.8	13.3	12.4	11.5	10.9	11.9	11.8	12.0	12.3	12.0
90°	1.0	3.0	6.0	7.0	8.0	8.0	14.0	14.0	16.0	18.0	17.0
92.5°	11.4	16.6	26.0	38.1	52.7	73.5	124.2	201.7	277.1	316.7	263.8
95°	32.9	35.9	45.9	58.9	82.9	124.8	211.6	375.4	614.0	813.6	836.6
97.5°	59.1	59.1	67.7	79.7	100.2	135.4	202.3	337.4	574.6	856.9	1051.0
100°	75.9	75.9	82.9	94.8	113.8	145.8	204.7	317.5	521.1	802.6	1058.2
102.5°	91.8	93.4	99.6	110.8	129.0	159.3	212.6	311.9	485.2	734.8	998.3
105°	116.8	119.8	124.8	136.8	154.7	183.7	231.6	314.5	454.2	654.9	889.5
107.5°	144.4	146.4	151.3	164.1	181.3	209.8	253.8	329.2	448.6	610.2	801.6
110°	162.7	164.7	169.7	181.7	199.7	226.6	270.5	340.4	450.2	595.0	757.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	180.3	182.3	188.1	199.3	217.2	244.2	286.5	352.4	455.0	587.8	733.0
115°	205.7	208.6	215.6	225.6	244.6	271.5	311.5	371.4	464.2	584.0	709.8
117.5°	232.0	234.8	241.0	252.0	269.7	297.7	335.6	390.7	474.0	583.0	699.4
120°	249.6	251.6	258.6	269.5	286.5	314.5	352.4	404.3	481.2	583.0	693.8
122.5°	265.6	267.5	274.5	284.7	303.3	330.4	368.4	417.1	488.4	582.2	687.4
125°	286.5	290.5	296.5	307.5	326.4	354.4	390.3	436.3	499.2	581.0	676.9
127.5°	305.1	308.3	315.5	328.0	347.8	376.0	410.7	452.8	507.7	578.8	662.7
130°	315.5	319.5	327.4	342.4	361.4	390.3	424.3	463.2	514.1	578.0	653.9
132.5°	325.8	329.0	339.4	353.6	374.2	401.5	435.5	473.6	519.7	577.2	645.9
135°	340.4	344.4	354.4	371.4	392.3	418.3	451.2	487.2	528.1	576.0	633.9
137.5°	355.0	358.8	369.8	385.9	407.7	432.5	463.2	496.8	533.1	575.8	623.5
140°	365.4	368.4	379.4	396.3	417.3	441.3	471.2	503.1	537.1	575.0	618.0
142.5°	376.6	379.6	389.7	405.9	426.1	449.2	478.4	507.9	540.3	575.0	613.2
145°	392.3	395.3	405.3	419.3	438.3	460.2	486.2	513.1	542.1	573.0	605.0
147.5°	410.1	411.1	419.9	434.3	450.0	469.8	494.2	517.7	543.1	569.4	597.6
150°	421.3	422.3	430.3	442.3	457.2	476.2	498.2	520.1	543.1	567.0	592.0
152.5°	431.7	431.9	439.9	451.0	464.4	481.8	501.4	521.7	541.5	563.0	585.6
155°	446.2	447.2	453.2	463.2	474.2	489.2	506.1	523.1	539.1	557.1	576.0
157.5°	460.4	460.4	466.0	473.8	483.4	495.2	509.5	523.1	536.5	550.9	566.2
160°	469.2	469.2	473.2	480.2	488.2	499.2	511.1	523.1	534.1	546.1	559.1
162.5°	477.2	476.4	479.6	485.8	493.0	501.6	512.7	523.1	531.7	541.3	552.7
165°	486.2	486.2	488.2	493.2	498.2	504.1	513.1	521.1	527.1	534.1	542.1
167.5°	495.2	494.2	495.2	499.0	501.8	506.3	512.9	518.7	522.3	526.9	532.5
170°	499.2	498.2	499.2	502.2	504.1	507.1	512.1	517.1	519.1	522.1	526.1
172.5°	503.1	502.2	502.3	504.5	505.7	507.9	511.3	515.5	515.9	517.3	520.5
175°	507.1	506.1	506.1	507.1	508.1	508.1	510.1	513.1	512.1	512.1	514.1
177.5°	508.9	508.1	507.3	508.1	508.1	508.1	508.9	510.5	508.9	508.9	509.7
180°	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1



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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°	12.0	12.1	12.2	12.2	12.5	12.8	12.8	12.9
90°	18.0	19.0	20.0	20.0	21.0	22.0	21.0	21.0
92.5°	196.1	147.6	117.4	97.4	85.7	80.3	76.9	76.9
95°	739.7	585.0	451.2	354.4	305.5	274.5	256.6	243.6
97.5°	1093.0	1035.4	937.8	833.6	761.9	701.8	671.9	651.1
100°	1204.0	1223.9	1175.0	1101.1	1014.3	953.4	923.4	915.5
102.5°	1198.4	1297.4	1311.6	1280.8	1227.5	1183.4	1151.9	1145.5
105°	1118.1	1290.8	1389.6	1430.6	1432.6	1424.6	1410.6	1404.6
107.5°	1004.1	1188.0	1327.2	1416.2	1465.5	1488.3	1498.3	1500.9
110°	935.4	1108.1	1252.9	1362.7	1433.6	1475.5	1493.5	1502.5





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CATALOG NUMBER: SA4XXRDIP-C575D1035U835-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	885.1	1037.8	1174.6	1284.4	1364.9	1415.6	1440.8	1455.3
115°	834.6	957.4	1074.2	1170.0	1248.9	1308.8	1340.7	1348.7
117.5°	809.8	911.5	1003.3	1084.6	1151.9	1202.2	1234.5	1240.7
120°	798.6	891.5	971.4	1042.2	1099.1	1143.1	1169.0	1180.0
122.5°	789.1	878.7	951.4	1013.5	1061.6	1099.1	1121.1	1132.1
125°	772.7	858.5	927.4	982.3	1022.3	1051.2	1070.2	1076.2
127.5°	752.7	834.8	903.5	955.6	995.7	1021.5	1037.4	1043.4
130°	736.8	815.6	883.5	936.4	977.3	1002.3	1018.3	1024.3
132.5°	720.0	794.1	860.3	913.3	953.4	981.5	996.7	1002.7
135°	696.8	761.7	822.6	872.5	912.5	940.4	956.4	962.4
137.5°	675.9	730.8	782.1	827.2	864.5	892.1	905.3	912.5
140°	663.9	710.8	755.7	797.6	832.6	854.6	868.5	876.5
142.5°	652.7	694.0	732.6	768.9	799.8	820.2	832.6	838.2
145°	636.9	670.9	700.8	728.8	753.7	770.7	780.7	785.7
147.5°	623.9	650.9	674.9	696.8	715.2	729.8	737.4	739.1
150°	616.0	638.9	658.9	676.9	692.8	705.8	711.8	712.8
152.5°	607.2	626.9	645.3	660.1	673.7	684.2	687.8	688.8
155°	594.0	610.0	624.9	636.9	646.9	654.9	657.9	657.9
157.5°	579.8	593.2	605.8	615.4	622.9	628.9	630.7	630.7
160°	571.0	582.0	593.0	601.0	607.0	613.0	614.0	614.0
162.5°	562.2	571.6	580.2	587.4	591.8	597.8	598.8	598.0
165°	550.1	556.1	563.0	568.0	572.0	576.0	575.0	574.0
167.5°	538.3	542.9	548.5	551.5	553.5	556.1	555.9	555.1
170°	531.1	534.1	538.1	541.1	543.1	544.1	543.1	543.1
172.5°	524.7	526.9	529.3	531.5	532.7	533.7	532.7	531.1
175°	516.1	517.1	519.1	519.1	519.1	521.1	519.1	517.1
177.5°	510.5	511.3	511.3	512.1	511.3	512.1	510.5	508.9
180°	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1

(END OF REPORT)