

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: P331698-927

Luminaire Tested: **SA2XXRDIP-C675D925U927-4F0-1E-UDD-F4**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331698-927  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA2XXRDIP-C675D925U927-4F0-1E-UDD-F4  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 675 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 925 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

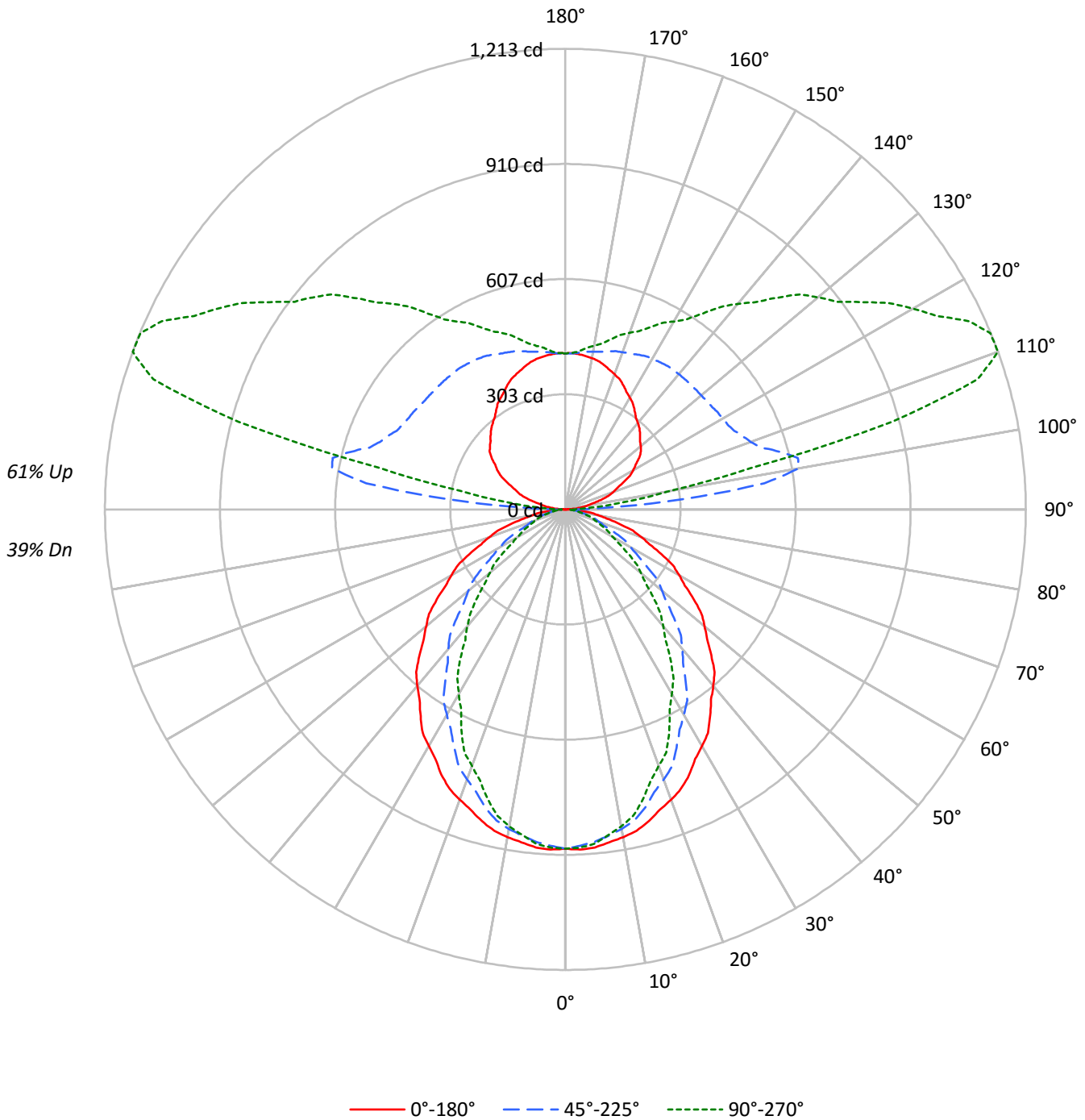
Lumens per Lamp: N/A  
Luminaire Lumens: 4702.5 lumens  
Efficiency: N/A  
Efficacy: 90.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

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





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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	105	105	105	105	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	96	92	88	85	87	83	80	78	68	66	64	54	53	51	41	40	40	34
2	87	80	75	70	79	73	68	64	60	57	54	48	46	44	37	35	34	29
3	80	71	64	58	73	65	59	54	53	49	45	43	40	37	33	31	29	25
4	73	63	55	50	66	58	51	46	48	43	39	38	35	32	30	27	26	22
5	67	56	48	43	61	52	45	40	43	38	34	35	31	28	27	24	23	19
6	62	51	43	37	56	46	40	35	39	33	30	31	28	25	25	22	20	17
7	57	46	38	33	52	42	35	30	35	30	26	29	25	22	22	20	18	15
8	53	41	34	29	49	38	32	27	32	27	23	26	22	20	21	18	16	14
9	50	38	31	26	45	35	29	24	29	24	21	24	20	18	19	17	15	12
10	46	35	28	23	42	32	26	22	27	22	19	22	19	16	18	15	13	11

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

	0°	45°	90°
0°	14428	14428	14428
5°	14483	14248	14326
10°	14372	14014	13895
15°	14206	13600	13207
20°	13979	13005	12352
25°	13744	12332	11526
30°	13420	11639	10465
35°	13102	10886	9532
40°	12783	10108	8454
45°	12408	9232	7478
50°	12024	8349	6521
55°	11634	7398	5599
60°	11176	6397	4647
65°	10659	5375	4233
70°	10041	4428	3895
75°	9283	4036	3631
80°	8201	3608	3310
85°	6447	2853	2853



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.6	1.8
10°-20°	229.7	4.9
20°-30°	322.5	6.9
30°-40°	351.7	7.5
40°-50°	323.4	6.9
50°-60°	254.0	5.4
60°-70°	165.6	3.5
70°-80°	85.4	1.8
80°-90°	25.9	0.5
90°-100°	164.4	3.5
100°-110°	557.8	11.9
110°-120°	592.6	12.6
120°-130°	487.8	10.4
130°-140°	391.8	8.3
140°-150°	296.0	6.3
150°-160°	208.1	4.4
160°-170°	122.5	2.6
170°-180°	39.9	0.8
0°-30°	635.8	13.5
0°-40°	987.5	21.0
0°-60°	1564.8	33.3
0°-90°	1841.6	39.2
90°-120°	1314.8	28.0
90°-150°	2490.5	53.0
90°-180°	2861.0	60.8
0°-180°	4702.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	894	894	894	894	894	
5°	894	889	879	886	884	85
15°	850	840	814	799	790	239
25°	772	744	692	660	647	355
35°	665	622	552	503	484	416
45°	543	488	404	349	328	419
55°	413	349	263	216	199	369
65°	279	213	141	115	111	277
75°	149	94	65	59	58	158
85°	35	19	15	15	15	41
90°	1	11	27	26	26	3
95°	28	68	310	117	90	29
105°	96	145	586	1047	891	102
115°	170	215	490	1012	1172	169
125°	237	281	471	819	951	211
135°	278	332	466	689	788	215
145°	318	365	463	575	629	199
155°	361	390	450	509	529	166
165°	394	406	431	457	464	111
175°	410	411	414	420	418	39
180°	411	411	411	411	411	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	893.6	893.6	893.6	893.6	893.6	893.6	893.6	893.6	893.6	893.6	893.6
2.5°	896.8	896.1	895.4	894.7	894.0	892.8	891.2	889.6	888.1	886.5	888.0
5°	893.6	892.7	891.8	890.9	890.0	888.4	886.1	883.8	881.4	879.1	880.7
7.5°	884.4	883.3	882.2	881.1	880.0	878.0	875.3	872.6	869.8	867.1	867.5
10°	876.6	875.4	874.1	872.8	871.6	869.2	865.5	862.0	858.4	854.8	854.3
12.5°	866.9	865.4	863.8	862.3	860.7	857.7	853.1	848.5	843.8	839.2	838.3
15°	849.9	848.0	846.0	844.0	842.0	838.0	831.9	825.8	819.7	813.6	810.2
17.5°	829.1	826.1	823.1	820.0	817.0	811.6	803.7	795.9	788.1	780.2	776.2
20°	813.6	809.9	806.4	802.8	799.2	792.9	783.9	774.9	766.0	756.9	752.4
22.5°	796.7	792.7	788.7	784.7	780.6	773.6	763.4	753.3	743.1	733.0	727.2
25°	771.5	765.7	760.0	754.2	748.5	739.7	727.9	716.0	704.1	692.2	684.8
27.5°	741.1	734.8	728.6	722.3	716.1	706.2	692.9	679.5	666.1	652.8	644.2
30°	719.8	712.9	706.1	699.3	692.4	681.8	667.4	653.1	638.7	624.3	615.1
32.5°	699.0	691.0	683.1	675.1	667.1	655.8	641.1	626.5	611.8	597.1	586.7
35°	664.7	655.6	646.4	637.2	628.1	615.6	599.8	584.0	568.2	552.3	541.0
37.5°	630.5	620.4	610.3	600.2	590.2	576.7	559.9	543.0	526.2	509.3	496.9
40°	606.5	595.7	584.9	574.2	563.4	549.3	531.9	514.4	497.0	479.6	466.8
42.5°	581.9	570.6	559.2	547.9	536.5	521.8	503.8	485.8	467.8	449.8	436.6
45°	543.4	531.4	519.4	507.3	495.3	479.8	461.0	442.1	423.2	404.3	391.6
47.5°	505.9	493.1	480.4	467.6	454.9	438.8	419.3	399.8	380.3	360.8	348.2
50°	478.7	466.0	453.2	440.5	427.7	411.5	391.7	371.9	352.1	332.4	320.0
52.5°	452.3	438.9	425.6	412.3	398.9	382.5	363.2	343.9	324.6	305.2	293.3
55°	413.3	399.3	385.2	371.2	357.2	340.5	321.1	301.7	282.3	262.8	252.1
57.5°	373.3	358.9	344.5	330.2	315.8	299.3	280.6	262.0	243.3	224.7	214.8
60°	346.1	331.8	317.3	303.0	288.6	272.2	253.7	235.1	216.7	198.1	188.9
62.5°	319.6	305.2	290.8	276.5	262.1	246.1	228.5	210.8	193.1	175.5	166.8
65°	279.0	264.4	249.9	235.4	220.8	205.4	189.3	173.1	156.9	140.7	134.6
67.5°	239.9	225.4	211.0	196.5	182.0	167.5	153.0	138.5	123.9	109.3	106.5
70°	212.7	198.7	184.7	170.6	156.6	143.4	131.0	118.6	106.2	93.8	92.0
72.5°	186.8	173.3	159.9	146.5	133.0	121.4	111.4	101.4	91.5	81.5	80.0
75°	148.8	136.3	123.7	111.1	98.5	89.1	83.0	76.9	70.8	64.7	63.5
77.5°	111.5	100.4	89.4	78.3	67.3	60.3	57.4	54.4	51.5	48.6	47.8
80°	88.2	79.0	69.8	60.7	51.5	46.0	44.2	42.4	40.6	38.8	38.1
82.5°	66.8	59.7	52.5	45.3	38.2	34.0	32.8	31.5	30.3	29.2	28.7
85°	34.8	31.0	27.3	23.4	19.6	17.5	17.0	16.5	15.9	15.4	15.4
87.5°	10.5	9.8	9.3	8.5	7.7	7.5	8.3	9.4	10.4	10.5	10.2
90°	0.8	3.2	6.3	7.9	9.5	11.9	15.8	21.3	26.1	26.9	26.1
92.5°	9.7	13.9	19.6	23.1	28.4	35.9	53.8	78.9	101.3	102.7	86.8
95°	27.6	30.8	38.7	45.9	58.5	77.5	113.8	182.6	274.3	309.9	271.2
97.5°	45.1	49.4	57.8	68.4	83.0	104.5	150.2	246.1	398.5	529.1	555.0
100°	60.8	63.2	70.3	83.0	98.9	121.0	162.9	259.4	430.1	624.6	738.5
102.5°	75.4	77.2	84.3	97.0	113.4	135.5	174.3	260.0	418.1	627.7	806.8
105°	96.5	99.7	105.1	117.0	134.4	156.5	193.7	264.0	394.5	585.8	796.1
107.5°	119.2	121.8	127.1	138.1	155.3	177.6	213.7	275.0	382.8	541.0	726.7
110°	134.4	137.6	142.3	152.6	169.2	192.1	226.9	283.8	380.3	519.4	683.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	148.3	151.5	156.9	166.5	182.4	206.0	239.6	293.3	380.9	505.5	652.8
115°	170.0	174.0	178.7	188.1	204.0	225.3	259.4	307.5	384.2	490.2	615.1
117.5°	192.4	195.6	200.3	208.7	223.9	246.1	277.5	322.7	389.9	482.8	591.4
120°	206.4	209.5	214.3	221.3	237.2	259.4	290.2	332.9	393.7	478.3	578.8
122.5°	219.7	222.1	226.9	234.6	250.5	273.2	302.1	341.7	398.2	475.8	568.0
125°	237.2	239.6	244.3	253.8	269.6	291.8	320.2	355.8	404.8	471.2	552.6
127.5°	251.1	254.3	260.9	271.3	286.5	309.3	337.0	368.9	411.6	468.5	538.4
130°	259.4	262.4	270.4	281.5	297.3	319.4	347.1	377.2	416.7	467.2	528.9
132.5°	266.9	270.7	279.2	291.0	307.4	329.5	355.9	385.3	421.7	466.6	521.3
135°	278.3	281.5	291.0	302.8	321.0	343.1	368.4	396.1	427.7	465.6	510.7
137.5°	289.1	292.9	302.3	315.0	333.0	353.6	378.6	404.3	433.1	465.5	503.3
140°	297.3	300.5	309.9	322.6	340.0	360.5	384.2	408.8	435.6	464.9	498.9
142.5°	305.5	308.0	316.9	329.5	346.3	365.6	388.6	412.6	437.5	464.9	494.5
145°	317.8	321.0	328.9	340.8	356.6	374.0	395.3	417.5	439.6	463.3	488.6
147.5°	331.1	333.5	341.0	352.0	365.1	380.6	400.7	420.2	440.2	460.5	482.6
150°	340.0	342.3	348.6	358.9	370.8	385.0	403.2	421.4	439.6	458.6	477.5
152.5°	348.8	349.9	356.2	365.3	376.5	389.4	405.8	422.0	438.3	455.4	473.1
155°	361.3	362.1	366.9	375.6	384.2	396.1	409.6	422.9	436.4	449.9	464.9
157.5°	371.8	372.6	376.4	383.9	390.9	400.8	412.3	422.9	432.8	444.2	457.2
160°	378.7	379.5	382.6	389.0	395.3	404.0	413.5	422.9	430.9	440.4	451.5
162.5°	385.6	385.2	388.3	393.4	399.1	405.9	414.2	422.3	429.0	437.2	446.4
165°	393.7	392.9	394.5	399.3	403.2	408.0	415.1	420.6	425.3	430.9	438.0
167.5°	400.4	399.4	400.8	403.9	406.7	409.7	414.9	419.5	421.7	425.3	429.8
170°	404.8	403.2	404.0	406.4	408.0	410.4	414.3	418.3	419.9	422.2	425.3
172.5°	407.3	406.4	405.9	408.3	409.2	411.0	413.7	416.4	417.3	418.4	421.0
175°	410.4	409.6	408.8	410.4	410.4	411.1	412.7	414.3	413.5	414.3	415.1
177.5°	411.8	410.5	409.9	411.1	411.1	411.1	411.8	413.0	411.8	411.1	411.8
180°	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	893.6	893.6	893.6	893.6	893.6	893.6	893.6	893.6
2.5°	889.4	890.8	892.2	892.8	892.6	892.2	892.0	891.7
5°	882.3	883.9	885.5	886.1	885.5	884.9	884.5	883.9
7.5°	868.0	868.5	868.9	868.7	867.8	866.9	865.9	865.0
10°	853.7	853.2	852.6	851.8	850.7	849.7	848.6	847.5
12.5°	837.3	836.4	835.4	834.0	832.2	830.4	828.6	826.8
15°	806.8	803.3	799.9	797.3	795.5	793.7	791.9	790.1
17.5°	772.1	768.0	764.0	760.4	757.3	754.2	751.1	748.1
20°	748.0	743.5	738.9	734.7	730.8	726.8	722.9	718.9
22.5°	721.4	715.7	709.9	705.5	702.5	699.6	696.6	693.7
25°	677.5	670.1	662.7	657.7	655.1	652.4	649.7	647.0
27.5°	635.6	627.0	618.5	612.0	607.7	603.4	599.1	594.8
30°	606.0	596.8	587.6	580.7	575.8	570.9	566.1	561.3
32.5°	576.2	565.8	555.3	547.8	543.2	538.7	534.1	529.6
35°	529.7	518.4	507.1	499.4	495.4	491.5	487.6	483.6
37.5°	484.3	471.9	459.5	450.9	446.4	441.9	437.4	432.8
40°	454.0	441.2	428.5	419.8	415.1	410.4	405.8	401.1
42.5°	423.4	410.2	397.0	388.2	383.7	379.1	374.6	370.0
45°	378.8	366.1	353.3	344.8	340.5	336.1	331.8	327.5
47.5°	335.5	322.8	310.1	301.8	297.9	294.0	290.0	286.1
50°	307.6	295.2	282.8	274.6	270.9	267.1	263.4	259.6
52.5°	281.3	269.3	257.3	249.6	246.1	242.6	239.2	235.7
55°	241.3	230.4	219.7	212.6	209.2	205.7	202.3	198.9
57.5°	204.9	195.0	185.1	178.7	175.9	173.0	170.1	167.2
60°	179.8	170.6	161.4	155.4	152.6	149.7	146.8	143.9
62.5°	158.0	149.2	140.5	135.3	133.6	131.9	130.2	128.4
65°	128.5	122.4	116.3	113.0	112.4	111.9	111.3	110.8
67.5°	103.7	100.9	98.2	96.4	95.9	95.3	94.7	94.1
70°	90.2	88.4	86.6	85.4	84.6	83.9	83.2	82.5
72.5°	78.5	77.0	75.5	74.5	74.1	73.7	73.2	72.8
75°	62.2	60.9	59.7	58.9	58.8	58.6	58.4	58.2
77.5°	47.1	46.3	45.6	45.2	44.8	44.6	44.3	44.0
80°	37.4	36.7	36.0	35.6	35.6	35.6	35.6	35.6
82.5°	28.3	27.8	27.4	27.2	27.2	27.2	27.2	27.2
85°	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
87.5°	10.0	9.5	9.7	9.7	9.7	9.7	9.7	9.7
90°	25.3	23.7	25.3	26.1	26.1	26.1	26.1	26.1
92.5°	68.9	59.2	52.5	47.6	47.0	44.4	45.1	43.8
95°	207.2	158.9	125.7	108.3	98.1	91.7	89.4	90.2
97.5°	483.4	395.5	309.9	252.9	215.1	195.6	184.0	177.4
100°	721.8	623.8	515.5	419.9	354.2	320.2	297.3	283.0
102.5°	878.1	856.0	776.7	675.3	604.0	546.0	517.4	498.1
105°	960.6	1050.0	1060.3	1034.1	985.1	936.1	902.1	891.0
107.5°	901.2	1035.7	1117.9	1156.2	1162.4	1159.7	1152.9	1138.2
110°	849.9	991.4	1092.7	1157.5	1191.4	1206.5	1213.6	1212.8





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CATALOG NUMBER: SA2XXRDIP-C675D925U927-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	803.1	939.0	1047.1	1121.4	1168.7	1193.8	1207.3	1211.6
115°	745.5	867.3	970.9	1052.3	1108.4	1144.8	1165.4	1172.5
117.5°	702.2	809.1	903.0	979.5	1036.6	1075.1	1096.8	1102.7
120°	680.7	778.8	862.5	934.5	989.8	1027.0	1050.0	1057.9
122.5°	663.6	753.4	832.8	897.9	947.5	984.0	1004.4	1011.1
125°	638.8	720.3	789.8	849.1	895.0	925.0	944.8	951.1
127.5°	614.3	688.0	753.6	808.3	848.3	876.5	893.6	898.7
130°	598.5	666.5	729.0	781.2	819.9	846.8	862.5	868.9
132.5°	583.3	646.3	703.6	752.7	790.8	817.7	832.2	837.9
135°	562.1	614.3	666.5	710.7	744.7	770.9	785.1	788.2
137.5°	545.2	588.8	630.3	668.8	699.9	722.3	734.8	739.6
140°	534.5	572.4	608.8	643.6	668.8	689.4	701.3	706.0
142.5°	525.6	557.9	589.1	618.3	642.3	661.0	671.5	672.5
145°	513.1	539.2	563.7	586.6	605.6	619.1	626.9	629.3
147.5°	503.4	524.0	543.1	559.9	575.6	586.3	591.7	593.1
150°	496.5	513.9	530.5	544.7	556.6	566.1	570.8	571.6
152.5°	489.6	505.6	519.8	532.1	541.4	549.6	553.1	553.3
155°	479.9	492.6	504.4	513.1	521.8	527.4	530.5	528.9
157.5°	468.7	479.3	489.3	496.1	502.2	506.8	508.2	508.2
160°	461.7	470.4	479.1	484.7	490.2	494.2	495.0	495.0
162.5°	454.8	462.2	469.6	473.9	479.4	482.1	482.9	482.3
165°	444.3	449.9	455.4	458.6	461.7	464.9	464.9	464.1
167.5°	434.4	438.6	442.4	445.3	446.7	448.5	448.3	447.3
170°	429.3	431.7	434.8	436.4	437.2	439.6	438.8	437.2
172.5°	423.6	425.3	427.9	428.8	429.6	430.7	429.9	429.0
175°	417.5	418.3	419.1	419.9	419.9	420.6	419.9	418.3
177.5°	413.0	413.0	413.7	413.7	413.7	413.7	413.0	411.8
180°	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1

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