

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: P331389-927

Luminaire Tested: **SA2XXDIP-C865D530U927-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331389-927
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: SA2XXDIP-C865D530U927-4F0-1E-UDD-D4
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 865 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 530 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4404.0 lumens
Efficiency: N/A
Efficacy: 90.2 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: General Diffuse

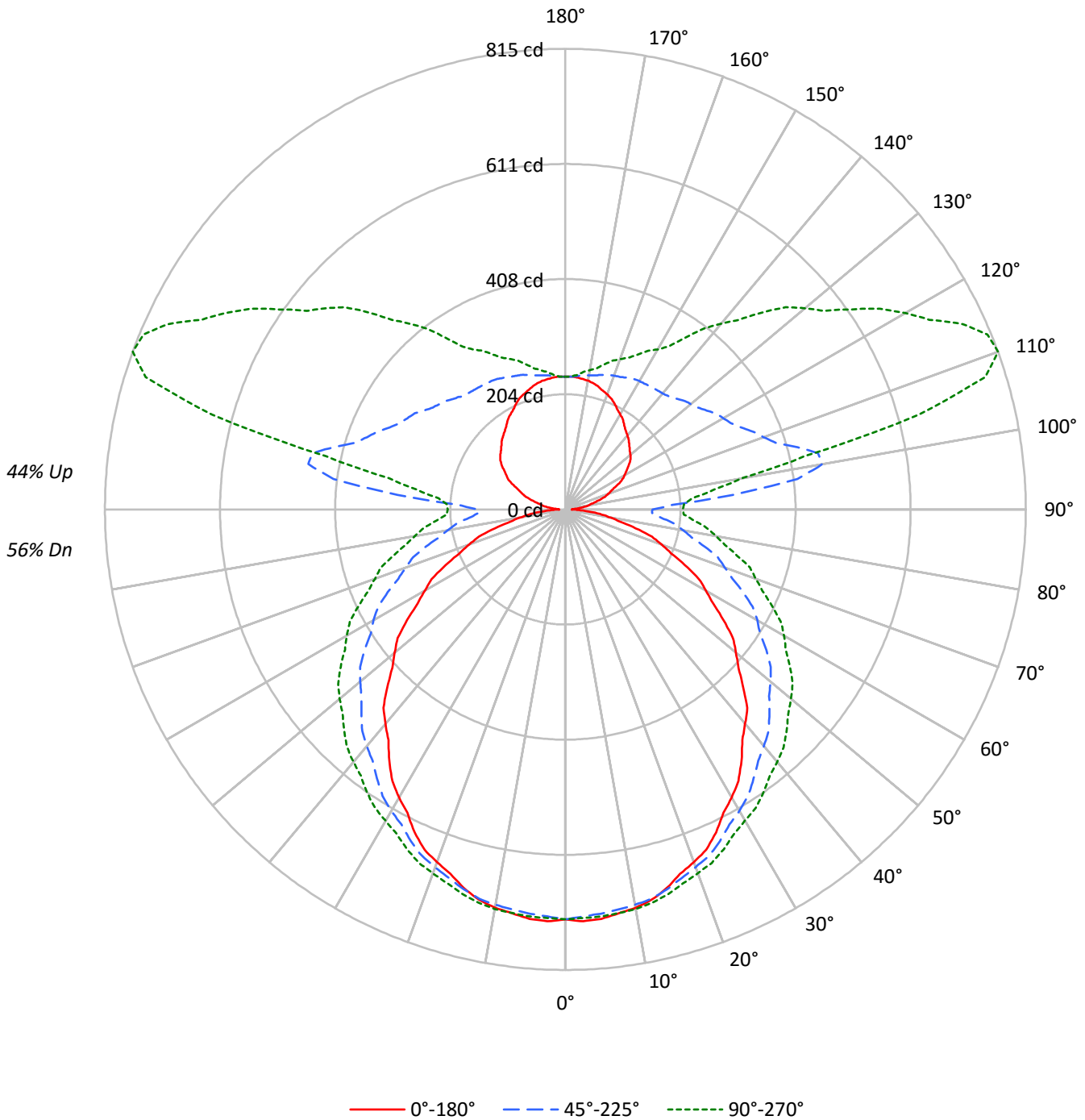
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331389-927

CATALOG NUMBER: SA2XXDIP-C865D530U927-4F0-1E-UDD-D4

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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56
1	97	92	88	84	90	86	82	78	73	70	68	62	60	58	52	50	49	44
2	88	80	73	67	81	74	68	63	63	59	55	54	50	47	45	42	40	35
3	80	69	61	55	74	65	57	52	55	50	45	47	43	39	39	36	33	29
4	73	61	53	46	67	57	49	43	49	43	38	41	37	33	34	31	28	24
5	67	54	46	39	62	51	43	37	44	37	33	37	32	28	31	27	24	21
6	61	49	40	34	57	45	38	32	39	33	28	33	28	25	28	24	21	18
7	57	44	35	29	52	41	33	28	35	29	25	30	25	22	25	22	19	16
8	53	40	32	26	49	37	30	25	32	26	22	28	23	19	23	19	17	14
9	49	36	28	23	45	34	27	22	29	24	20	25	21	17	21	18	15	13
10	46	33	26	21	42	31	24	20	27	21	18	23	19	15	20	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11711	11711	11711
5°	11768	11274	11230
10°	11694	10940	10818
15°	11533	10587	10382
20°	11328	10209	9963
25°	11128	9845	9582
30°	10845	9471	9201
35°	10557	9109	8932
40°	10256	8801	8662
45°	9969	8526	8433
50°	9662	8276	8207
55°	9341	8008	7975
60°	8945	7730	7732
65°	8536	7405	7441
70°	8073	7053	7130
75°	7484	6710	6841
80°	6553	6361	6548
85°	5671	6056	6323



TEST NUMBER: P331389-927

CATALOG NUMBER: SA2XXDIP-C865D530U927-4F0-1E-UDD-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.7	1.6
10°-20°	197.1	4.5
20°-30°	298.7	6.8
30°-40°	363.8	8.3
40°-50°	391.3	8.9
50°-60°	380.0	8.6
60°-70°	331.8	7.5
70°-80°	255.5	5.8
80°-90°	173.6	3.9
90°-100°	212.0	4.8
100°-110°	405.0	9.2
110°-120°	395.6	9.0
120°-130°	310.6	7.1
130°-140°	237.2	5.4
140°-150°	171.5	3.9
150°-160°	118.9	2.7
160°-170°	70.0	1.6
170°-180°	22.8	0.5
0°-30°	564.5	12.8
0°-40°	928.2	21.1
0°-60°	1699.6	38.6
0°-90°	2460.5	55.9
90°-120°	1012.6	23.0
90°-150°	1731.9	39.3
90°-180°	1944.0	44.1
0°-180°	4404.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	725	725	725	725	725	
5°	727	724	718	724	723	69
15°	694	696	696	705	704	195
25°	631	638	648	660	663	290
35°	543	562	581	604	612	340
45°	446	475	511	542	554	344
55°	342	380	434	471	486	305
65°	233	286	347	388	404	232
75°	129	189	255	299	314	137
85°	38	103	170	213	229	41
90°	11	78	154	194	208	8
95°	24	97	298	226	225	23
105°	60	120	425	724	648	65
115°	101	140	343	672	776	100
125°	138	164	305	531	617	123
135°	160	191	278	426	492	124
145°	182	209	265	335	371	114
155°	206	223	257	291	302	95
165°	225	232	246	261	265	63
175°	234	235	237	240	239	22
180°	235	235	235	235	235	



TEST NUMBER: P331389-927

CATALOG NUMBER: SA2XXDIP-C865D530U927-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3
2.5°	729.5	729.0	728.4	727.9	727.3	726.4	725.0	723.7	722.4	721.1	722.1
5°	727.4	726.7	726.0	725.3	724.6	723.6	722.2	720.7	719.4	718.0	719.4
7.5°	720.9	720.4	719.9	719.5	719.1	718.3	717.2	716.1	715.0	714.0	715.7
10°	715.9	715.4	714.9	714.5	714.0	713.4	712.7	712.0	711.3	710.6	712.5
12.5°	707.4	707.6	707.7	707.7	707.8	707.6	707.1	706.5	706.1	705.5	707.4
15°	693.8	694.3	694.7	695.2	695.6	695.9	695.9	695.9	695.9	695.9	698.0
17.5°	676.1	677.1	678.1	679.1	680.0	680.9	681.7	682.4	683.2	683.9	686.1
20°	664.3	665.5	666.7	667.9	669.0	670.1	671.0	671.9	672.9	673.8	676.4
22.5°	651.7	653.1	654.4	655.8	657.1	658.5	659.8	661.1	662.4	663.7	666.3
25°	630.7	632.3	634.0	635.6	637.2	639.1	641.2	643.3	645.4	647.5	650.3
27.5°	605.5	608.2	610.8	613.5	616.2	618.7	621.2	623.7	626.1	628.6	632.2
30°	588.7	591.7	594.8	597.8	600.8	603.9	606.9	609.9	613.0	616.0	619.7
32.5°	570.1	573.5	576.9	580.4	583.8	587.3	590.9	594.5	598.1	601.7	606.0
35°	543.4	547.4	551.4	555.4	559.4	563.6	568.0	572.4	576.9	581.3	586.5
37.5°	514.4	519.0	523.6	528.1	532.7	537.9	543.7	549.5	555.2	560.9	566.6
40°	495.1	500.3	505.4	510.6	515.6	521.4	527.7	534.0	540.3	546.6	552.7
42.5°	476.6	481.7	486.9	492.0	497.2	503.4	510.6	517.8	525.1	532.3	538.9
45°	445.7	452.0	458.3	464.6	471.0	478.2	486.3	494.6	502.7	510.9	518.1
47.5°	415.2	422.1	429.0	435.9	442.7	450.9	460.5	470.1	479.7	489.3	496.8
50°	394.2	401.4	408.7	415.9	423.2	432.1	442.5	453.0	463.6	474.1	482.0
52.5°	374.0	381.6	389.3	396.9	404.5	413.8	424.9	435.9	447.0	458.1	466.2
55°	341.7	350.1	358.5	366.9	375.3	385.6	397.7	409.9	422.0	434.1	442.5
57.5°	309.7	319.2	328.7	338.1	347.6	358.5	370.9	383.3	395.7	408.1	417.2
60°	287.0	297.0	307.0	317.1	327.2	338.8	352.1	365.4	378.7	392.1	401.0
62.5°	266.8	277.2	287.6	298.0	308.5	320.4	333.7	347.0	360.3	373.6	383.0
65°	233.4	244.8	256.3	267.7	279.2	291.8	305.5	319.3	333.1	346.9	356.5
67.5°	202.6	214.6	226.6	238.5	250.5	263.6	277.7	291.8	305.9	320.0	329.6
70°	180.8	193.0	205.1	217.2	229.4	242.7	257.2	271.6	286.1	300.6	310.7
72.5°	160.7	173.2	185.7	198.2	210.7	224.3	239.0	253.7	268.3	283.0	292.9
75°	129.3	142.4	155.4	168.6	181.6	195.7	210.6	225.5	240.5	255.4	265.5
77.5°	99.0	112.7	126.4	140.1	153.8	168.2	183.4	198.6	213.7	228.9	238.9
80°	78.8	93.1	107.3	121.6	135.9	150.5	165.7	180.9	196.1	211.3	221.1
82.5°	62.0	76.0	90.2	104.2	118.3	133.0	148.4	163.7	179.1	194.5	204.3
85°	37.9	52.4	66.8	81.3	95.8	110.5	125.4	140.4	155.3	170.3	180.1
87.5°	20.7	34.9	49.2	63.3	77.4	92.1	107.5	123.1	138.6	153.6	163.0
90°	10.9	25.9	41.2	55.7	70.1	85.7	102.9	121.0	138.7	154.1	163.0
92.5°	15.2	30.3	46.1	60.7	76.4	94.1	118.7	147.5	174.7	189.9	190.0
95°	24.2	37.0	52.5	67.6	85.8	109.1	143.9	197.3	263.6	298.0	284.7
97.5°	33.1	45.3	59.9	75.8	93.9	117.7	157.3	225.5	326.1	414.2	437.6
100°	42.1	52.1	64.9	80.7	98.4	121.9	158.9	227.1	337.8	462.0	535.8
102.5°	49.6	58.5	70.5	85.6	102.9	125.8	160.7	222.4	325.4	458.0	568.7
105°	60.4	68.9	78.9	92.4	109.2	131.3	164.6	217.0	303.7	425.2	553.5
107.5°	73.2	80.0	88.6	100.2	115.4	136.7	169.0	215.6	288.9	390.9	504.9
110°	81.0	87.5	94.9	105.4	119.5	140.8	172.1	216.0	282.6	373.5	474.5



TEST NUMBER: P331389-927

CATALOG NUMBER: SA2XXDIP-C865D530U927-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	89.0	94.7	101.7	111.1	124.1	145.0	175.1	216.7	277.7	359.7	451.3
115°	101.3	106.2	111.5	119.5	131.0	149.8	179.7	217.8	272.1	343.2	421.5
117.5°	113.1	116.6	121.0	127.5	137.8	156.1	183.9	219.4	267.5	330.3	399.3
120°	121.0	123.8	127.5	132.5	142.4	160.2	187.2	220.9	265.1	322.7	386.7
122.5°	128.7	130.5	133.6	138.4	147.7	165.3	190.7	222.0	263.1	316.2	375.3
125°	137.6	139.0	141.7	147.1	156.1	172.5	196.3	224.1	259.6	305.0	357.8
127.5°	145.6	147.2	150.8	156.5	164.9	180.8	202.6	226.9	257.3	295.9	341.6
130°	150.3	151.9	156.1	162.2	171.0	186.0	206.8	228.8	256.3	290.1	331.0
132.5°	154.6	156.5	161.2	167.6	176.8	191.2	210.1	230.7	255.2	284.7	321.4
135°	160.1	161.8	167.3	174.0	184.5	198.3	215.1	233.2	253.7	277.7	308.3
137.5°	166.2	168.3	173.7	180.9	191.2	203.4	218.7	234.5	251.9	271.5	297.4
140°	171.0	172.5	177.7	184.7	194.4	206.2	220.2	234.7	250.6	267.8	290.9
142.5°	175.6	176.8	181.6	188.6	198.0	209.0	222.2	236.0	250.3	266.1	286.0
145°	181.6	183.4	187.9	194.7	203.7	213.7	225.9	238.5	251.2	264.7	280.6
147.5°	189.2	190.5	194.9	201.1	208.7	217.5	228.9	240.1	251.5	263.1	275.9
150°	194.2	195.6	199.2	205.1	211.9	220.0	230.4	240.8	251.2	262.1	272.9
152.5°	199.3	199.9	203.6	208.7	215.2	222.5	231.9	241.1	250.5	260.2	270.4
155°	206.4	206.9	209.6	214.6	219.6	226.3	234.0	241.7	249.4	257.1	265.6
157.5°	212.4	212.9	215.1	219.4	223.4	229.0	235.5	241.7	247.3	253.8	261.2
160°	216.4	216.8	218.6	222.3	225.9	230.8	236.3	241.7	246.2	251.7	257.9
162.5°	220.4	220.1	221.9	224.8	228.1	232.0	236.6	241.3	245.1	249.9	255.1
165°	225.0	224.5	225.5	228.1	230.4	233.1	237.2	240.3	243.0	246.2	250.3
167.5°	228.8	228.2	229.0	230.8	232.4	234.1	237.1	239.7	241.0	243.0	245.6
170°	231.3	230.4	230.8	232.2	233.1	234.5	236.7	239.0	239.9	241.2	243.0
172.5°	232.7	232.2	232.0	233.3	233.9	234.8	236.4	237.9	238.4	239.1	240.5
175°	234.5	234.0	233.5	234.5	234.5	234.9	235.8	236.7	236.3	236.7	237.2
177.5°	235.3	234.6	234.2	234.9	234.9	234.9	235.3	236.0	235.3	234.9	235.3
180°	234.9	234.9	234.9	234.9	234.9	234.9	234.9	234.9	234.9	234.9	234.9



TEST NUMBER: P331389-927

CATALOG NUMBER: SA2XXDIP-C865D530U927-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3
2.5°	722.9	723.9	724.8	725.2	724.8	724.4	724.0	723.7
5°	720.7	722.2	723.6	724.1	723.9	723.7	723.4	723.2
7.5°	717.3	719.0	720.7	721.4	721.2	721.0	720.7	720.5
10°	714.3	716.2	718.1	718.9	718.7	718.4	718.2	718.0
12.5°	709.3	711.1	713.0	713.8	713.6	713.4	713.1	712.9
15°	700.1	702.2	704.3	705.2	705.0	704.7	704.5	704.3
17.5°	688.3	690.5	692.7	693.8	693.8	693.8	693.8	693.8
20°	679.0	681.5	684.0	685.4	685.4	685.4	685.4	685.4
22.5°	668.8	671.5	674.0	675.5	675.8	676.2	676.6	677.0
25°	653.2	655.9	658.8	660.5	661.2	661.9	662.6	663.3
27.5°	635.7	639.3	642.8	644.8	645.4	645.9	646.4	646.9
30°	623.4	627.2	631.0	633.2	633.8	634.5	635.3	636.0
32.5°	610.3	614.6	618.9	621.7	622.9	624.2	625.4	626.7
35°	591.6	596.8	601.9	605.2	606.9	608.6	610.1	611.8
37.5°	572.3	578.0	583.7	587.4	589.1	590.9	592.6	594.4
40°	558.7	564.8	570.9	575.0	577.1	579.2	581.3	583.4
42.5°	545.6	552.2	558.9	563.2	565.3	567.4	569.5	571.6
45°	525.4	532.6	539.9	544.6	547.0	549.3	551.7	554.0
47.5°	504.4	511.9	519.5	524.6	527.1	529.7	532.3	534.9
50°	490.0	497.9	505.9	511.1	513.7	516.3	518.8	521.4
52.5°	474.4	482.5	490.6	496.1	498.8	501.6	504.3	507.1
55°	451.0	459.4	467.8	473.5	476.5	479.6	482.6	485.6
57.5°	426.2	435.2	444.3	450.4	453.4	456.5	459.6	462.7
60°	409.9	418.7	427.6	433.6	437.0	440.2	443.5	446.8
62.5°	392.4	401.9	411.3	417.6	420.6	423.7	426.8	429.9
65°	366.1	375.7	385.2	391.5	394.5	397.6	400.6	403.6
67.5°	339.3	349.0	358.7	365.1	368.3	371.5	374.6	377.8
70°	320.8	330.7	340.8	347.2	350.1	352.8	355.7	358.5
72.5°	302.7	312.5	322.4	329.0	332.4	335.7	339.1	342.5
75°	275.5	285.6	295.6	302.1	305.2	308.2	311.2	314.3
77.5°	249.0	259.0	268.9	275.6	278.8	282.1	285.4	288.7
80°	230.9	240.7	250.6	257.1	260.3	263.6	266.9	270.1
82.5°	214.1	223.9	233.7	240.2	243.3	246.3	249.4	252.5
85°	189.9	199.7	209.5	216.1	219.4	222.6	225.9	229.2
87.5°	172.5	181.8	191.5	197.9	200.9	203.9	206.8	209.8
90°	171.9	180.4	190.6	197.1	199.9	202.7	205.5	208.3
92.5°	188.9	192.4	197.8	201.0	203.4	204.8	207.9	210.0
95°	257.0	238.3	228.2	224.1	221.0	220.2	221.7	225.0
97.5°	405.4	363.8	323.5	296.6	277.7	269.4	265.5	264.5
100°	534.9	487.5	434.3	385.2	350.2	333.4	322.9	317.3
102.5°	617.9	613.7	576.9	524.5	486.3	455.7	441.9	433.5
105°	655.7	714.9	729.0	719.4	694.0	668.5	651.6	647.9
107.5°	612.4	697.1	752.0	779.0	785.1	786.2	784.9	779.0
110°	577.3	665.7	730.9	773.1	795.0	806.2	812.9	814.9



TEST NUMBER: P331389-927

CATALOG NUMBER: SA2XXDIP-C865D530U927-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	544.7	629.8	699.1	746.6	776.2	793.1	803.4	808.3
115°	503.1	579.7	645.9	697.2	731.8	755.2	769.5	776.2
117.5°	469.5	537.6	598.1	646.4	681.5	705.8	720.6	726.4
120°	451.5	514.0	568.5	614.1	648.3	672.1	687.8	694.9
122.5°	436.3	493.9	545.7	587.1	617.7	640.7	654.6	660.5
125°	413.4	466.2	512.3	550.4	578.7	597.9	611.3	617.0
127.5°	390.8	438.7	482.0	517.1	542.1	560.2	572.0	576.9
130°	376.4	420.8	462.1	495.7	519.7	536.9	547.8	553.3
132.5°	362.3	403.6	441.8	473.5	497.1	514.4	524.6	529.7
135°	342.6	377.3	412.0	440.7	462.0	478.8	488.8	492.5
137.5°	325.6	354.8	382.8	407.8	427.1	441.5	450.3	454.6
140°	315.0	340.4	364.9	387.4	403.2	416.4	424.5	428.6
142.5°	306.7	328.1	349.0	367.7	382.7	394.6	401.9	403.6
145°	296.0	312.3	327.7	342.1	354.1	363.0	368.7	371.1
147.5°	288.0	300.0	311.1	321.1	330.6	337.3	340.9	342.3
150°	283.7	293.7	303.2	311.2	318.1	323.4	326.1	326.6
152.5°	279.7	289.0	297.0	304.0	309.3	314.1	316.1	316.2
155°	274.3	281.5	288.2	293.2	298.2	301.3	303.2	302.2
157.5°	267.8	273.9	279.6	283.4	286.9	289.6	290.4	290.4
160°	263.8	268.8	273.8	276.9	280.1	282.3	282.8	282.8
162.5°	259.8	264.1	268.4	270.8	273.9	275.5	275.9	275.6
165°	253.9	257.1	260.2	262.1	263.8	265.6	265.6	265.2
167.5°	248.2	250.6	252.8	254.4	255.2	256.3	256.2	255.6
170°	245.3	246.7	248.5	249.4	249.9	251.2	250.7	249.9
172.5°	242.1	243.0	244.5	245.0	245.5	246.1	245.7	245.1
175°	238.5	239.0	239.5	239.9	239.9	240.3	239.9	239.0
177.5°	236.0	236.0	236.4	236.4	236.4	236.4	236.0	235.3
180°	234.9	234.9	234.9	234.9	234.9	234.9	234.9	234.9

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