

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: P331342-927

Luminaire Tested: **SA2XXDIP-C675D530U927-4F0-1E-UDD-D**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331342-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C675D530U927-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 530 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

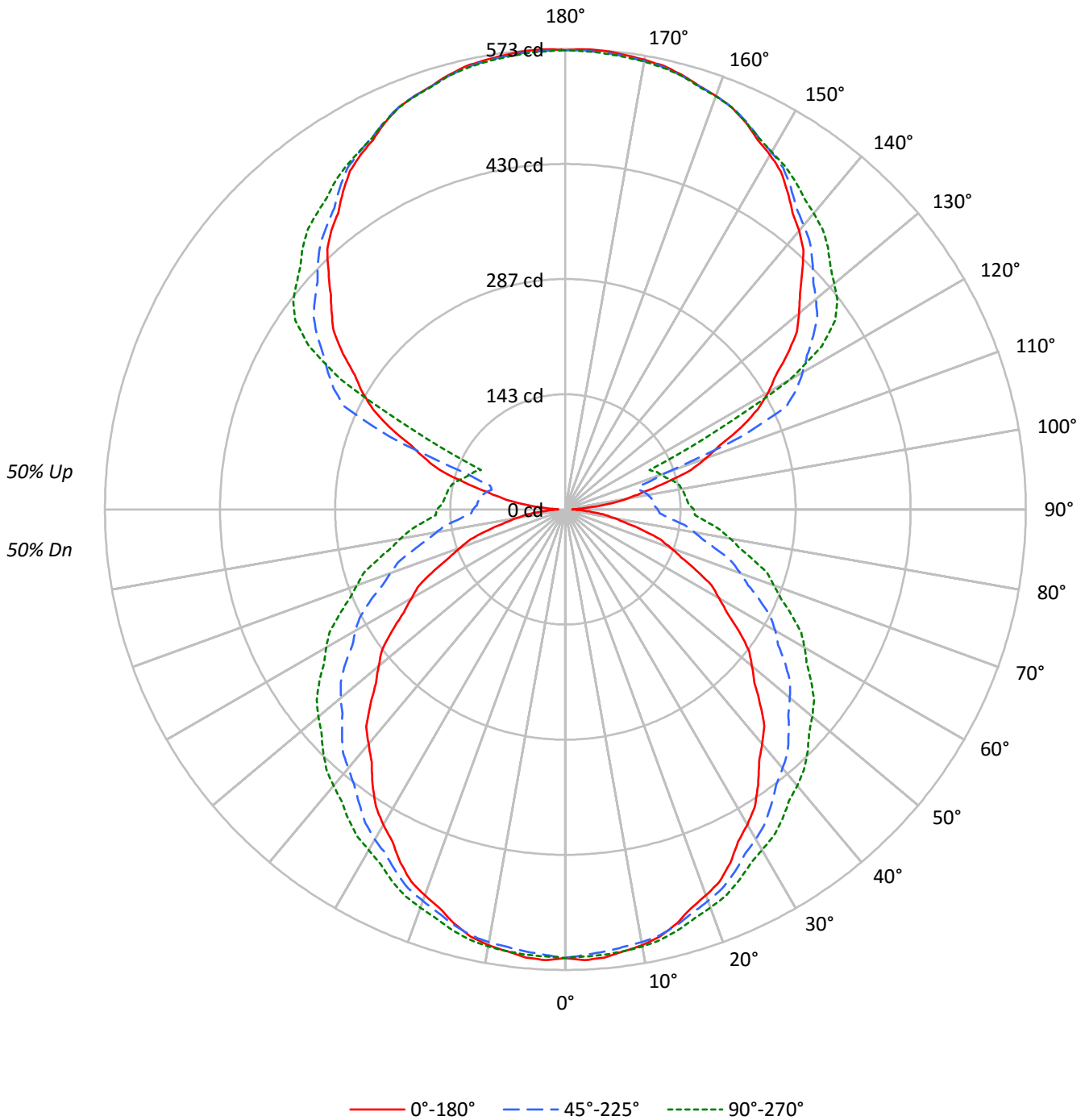
Lumens per Lamp: N/A
Luminaire Lumens: 3804.6 lumens
Efficiency: N/A
Efficacy: 94.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 40.3
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





TEST NUMBER: P331342-927

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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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	96	91	87	83	88	84	80	77	71	68	65	58	56	54	47	46	44	39
2	87	79	72	66	80	73	67	62	61	57	53	50	47	44	41	38	36	31
3	79	69	61	55	72	63	57	51	53	48	44	44	40	37	35	33	30	26
4	72	61	52	46	66	56	48	43	47	41	37	39	35	31	31	28	25	22
5	66	54	45	39	60	50	42	36	42	36	31	35	30	27	28	25	22	19
6	61	48	40	34	56	44	37	31	38	32	27	31	27	23	25	22	19	16
7	56	43	35	29	51	40	33	27	34	28	24	28	24	20	23	20	17	14
8	52	39	31	26	48	36	29	24	31	25	21	26	21	18	21	18	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9009	9009	9009
5°	9053	8672	8638
10°	8996	8417	8321
15°	8873	8146	7988
20°	8716	7854	7665
25°	8561	7573	7372
30°	8343	7286	7079
35°	8122	7007	6870
40°	7890	6771	6665
45°	7670	6558	6488
50°	7431	6366	6313
55°	7184	6161	6135
60°	6882	5948	5948
65°	6564	5697	5724
70°	6211	5427	5485
75°	5759	5163	5263
80°	5048	4895	5040
85°	4369	4658	4864



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.9	1.4
10°-20°	151.6	4.0
20°-30°	229.8	6.0
30°-40°	279.8	7.4
40°-50°	301.1	7.9
50°-60°	292.4	7.7
60°-70°	255.3	6.7
70°-80°	196.5	5.2
80°-90°	133.3	3.5
90°-100°	109.9	2.9
100°-110°	136.3	3.6
110°-120°	230.6	6.1
120°-130°	332.8	8.7
130°-140°	338.2	8.9
140°-150°	306.6	8.1
150°-160°	245.1	6.4
160°-170°	157.9	4.2
170°-180°	54.4	1.4
0°-30°	434.3	11.4
0°-40°	714.1	18.8
0°-60°	1307.5	34.4
0°-90°	1892.7	49.7
90°-120°	476.8	12.5
90°-150°	1454.5	38.2
90°-180°	1912.0	50.3
0°-180°	3804.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	558	558	558	558	558	
5°	560	557	552	557	556	53
15°	534	535	535	542	542	150
25°	485	491	498	507	510	223
35°	418	432	447	464	471	261
45°	343	365	393	417	426	265
55°	263	293	334	362	374	235
65°	180	220	267	299	310	178
75°	100	145	196	230	242	105
85°	29	79	131	164	176	31
90°	8	60	115	148	160	7
95°	33	59	109	141	151	38
105°	130	160	95	126	138	139
115°	241	259	304	145	116	237
125°	338	345	377	401	410	301
135°	417	424	435	455	462	322
145°	482	482	489	496	499	302
155°	531	528	532	535	532	245
165°	560	558	558	561	558	158
175°	573	570	570	573	569	54
180°	571	571	571	571	571	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
2.5°	561.3	560.8	560.4	559.9	559.5	558.8	557.8	556.7	555.8	554.8	555.5
5°	559.6	559.0	558.6	558.0	557.5	556.7	555.6	554.5	553.4	552.3	553.4
7.5°	554.6	554.2	553.9	553.5	553.2	552.5	551.8	550.9	550.1	549.3	550.6
10°	550.7	550.3	550.0	549.6	549.3	548.8	548.3	547.8	547.2	546.7	548.1
12.5°	544.2	544.3	544.4	544.5	544.5	544.4	544.0	543.6	543.2	542.8	544.2
15°	533.8	534.1	534.5	534.8	535.2	535.4	535.4	535.4	535.4	535.4	536.9
17.5°	520.1	520.9	521.7	522.4	523.2	523.9	524.4	525.0	525.5	526.2	527.8
20°	511.1	512.0	512.9	513.8	514.7	515.5	516.2	517.0	517.7	518.4	520.4
22.5°	501.4	502.4	503.5	504.5	505.6	506.6	507.6	508.6	509.6	510.6	512.6
25°	485.2	486.5	487.7	489.0	490.3	491.7	493.3	495.0	496.5	498.1	500.3
27.5°	465.8	467.9	469.9	472.0	474.0	476.0	477.9	479.8	481.7	483.6	486.3
30°	452.9	455.2	457.6	459.9	462.2	464.5	466.9	469.2	471.6	473.9	476.7
32.5°	438.6	441.2	443.9	446.5	449.2	451.9	454.6	457.3	460.1	462.9	466.2
35°	418.1	421.1	424.2	427.2	430.3	433.6	437.0	440.4	443.8	447.2	451.1
37.5°	395.8	399.3	402.8	406.3	409.9	413.8	418.3	422.7	427.1	431.5	435.9
40°	380.9	384.8	388.8	392.8	396.7	401.1	406.0	410.8	415.7	420.5	425.2
42.5°	366.7	370.6	374.5	378.5	382.5	387.2	392.8	398.4	403.9	409.6	414.6
45°	342.9	347.8	352.6	357.4	362.3	367.9	374.1	380.5	386.7	393.0	398.6
47.5°	319.4	324.7	330.0	335.3	340.6	346.9	354.3	361.6	369.0	376.4	382.2
50°	303.2	308.9	314.4	320.0	325.5	332.4	340.5	348.6	356.6	364.7	370.8
52.5°	287.7	293.6	299.4	305.3	311.2	318.4	326.9	335.4	343.9	352.4	358.7
55°	262.8	269.3	275.8	282.3	288.7	296.6	305.9	315.3	324.6	334.0	340.5
57.5°	238.2	245.6	252.9	260.2	267.4	275.8	285.3	294.9	304.4	313.9	320.9
60°	220.8	228.5	236.2	244.0	251.7	260.7	270.9	281.1	291.4	301.7	308.5
62.5°	205.3	213.3	221.3	229.3	237.3	246.4	256.7	266.9	277.2	287.4	294.7
65°	179.5	188.3	197.2	206.0	214.8	224.4	235.0	245.7	256.3	266.9	274.3
67.5°	155.9	165.1	174.4	183.5	192.7	202.7	213.6	224.4	235.3	246.1	253.6
70°	139.1	148.5	157.8	167.2	176.5	186.7	197.9	209.0	220.1	231.3	239.0
72.5°	123.6	133.2	142.8	152.5	162.1	172.5	183.9	195.1	206.4	217.7	225.3
75°	99.5	109.6	119.6	129.7	139.7	150.5	162.0	173.5	185.0	196.5	204.2
77.5°	76.2	86.7	97.3	107.7	118.3	129.4	141.1	152.8	164.5	176.1	183.9
80°	60.7	71.6	82.5	93.6	104.5	115.8	127.5	139.2	150.8	162.6	170.1
82.5°	47.7	58.5	69.3	80.2	91.0	102.3	114.2	126.0	137.8	149.6	157.2
85°	29.2	40.2	51.4	62.5	73.7	85.0	96.5	108.0	119.5	131.0	138.6
87.5°	15.9	26.9	37.8	48.6	59.6	70.9	82.5	94.2	105.8	117.5	124.8
90°	8.5	20.0	31.4	42.8	54.3	66.1	78.3	90.5	102.7	115.0	122.6
92.5°	15.8	25.4	35.0	44.6	54.3	64.8	76.2	87.6	99.1	110.5	117.8
95°	33.4	38.7	44.2	49.6	55.0	63.5	74.9	86.3	97.7	109.2	116.5
97.5°	59.0	58.0	57.0	55.9	54.9	60.3	72.1	84.0	95.8	107.7	114.6
100°	78.8	72.9	66.9	61.0	55.1	57.9	69.6	81.2	92.8	104.4	111.9
102.5°	100.1	103.5	106.9	110.3	113.7	113.8	110.4	107.2	103.9	100.5	108.1
105°	129.8	137.7	145.7	153.6	161.6	157.7	142.0	126.3	110.5	94.7	102.0
107.5°	164.5	171.0	177.3	183.7	190.1	182.8	161.6	140.5	119.4	98.2	103.2
110°	186.4	191.9	197.4	203.0	208.5	202.3	184.6	166.8	149.1	131.3	127.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	207.6	212.3	217.0	221.7	226.5	229.7	231.6	233.4	235.2	237.0	209.2
115°	241.0	244.5	248.0	251.6	255.1	262.1	272.4	282.8	293.2	303.6	266.5
117.5°	270.0	273.1	276.1	279.1	282.2	288.2	297.2	306.3	315.4	324.4	319.5
120°	291.8	293.9	296.0	298.1	300.2	305.7	314.5	323.4	332.2	341.0	347.2
122.5°	310.4	312.0	313.8	315.5	317.3	322.4	331.0	339.5	348.1	356.6	362.2
125°	337.7	338.9	340.1	341.3	342.5	346.8	354.3	361.9	369.3	376.8	382.3
127.5°	363.3	364.4	365.6	366.7	367.8	371.4	377.3	383.3	389.2	395.1	400.5
130°	379.5	380.8	382.1	383.3	384.6	387.7	392.4	397.3	402.0	406.8	412.2
132.5°	396.0	397.1	398.2	399.3	400.3	402.8	406.7	410.7	414.5	418.5	423.5
135°	416.7	418.2	419.6	421.1	422.6	424.6	427.2	429.9	432.5	435.1	439.8
137.5°	438.5	439.4	440.5	441.4	442.4	443.8	445.5	447.3	448.9	450.7	454.9
140°	452.7	453.2	453.8	454.3	454.9	455.8	457.2	458.6	459.9	461.4	465.0
142.5°	464.6	465.1	465.6	466.0	466.5	467.4	468.6	469.8	471.0	472.3	475.3
145°	482.4	482.4	482.3	482.2	482.1	482.8	484.4	485.9	487.5	489.1	490.8
147.5°	498.8	498.4	498.0	497.7	497.3	498.0	499.5	501.1	502.6	504.1	504.8
150°	509.3	508.7	508.0	507.4	506.8	507.2	508.7	510.1	511.6	513.0	513.6
152.5°	518.2	517.5	516.8	516.1	515.4	515.7	517.1	518.6	519.9	521.3	521.9
155°	531.2	530.4	529.6	528.8	527.9	528.1	529.2	530.3	531.4	532.5	533.1
157.5°	541.4	540.7	540.0	539.3	538.6	538.7	539.4	540.2	541.0	541.8	542.3
160°	547.4	546.8	546.3	545.7	545.2	545.2	545.7	546.3	546.8	547.4	548.0
162.5°	552.6	552.1	551.5	551.0	550.5	550.4	550.9	551.4	551.8	552.3	552.9
165°	559.8	559.2	558.6	558.1	557.5	557.5	557.7	557.9	558.3	558.5	559.2
167.5°	565.1	564.5	564.0	563.4	562.8	562.7	562.9	563.2	563.5	563.7	564.4
170°	568.0	567.5	567.0	566.4	565.9	565.6	565.9	566.0	566.2	566.4	567.0
172.5°	570.1	569.5	568.9	568.4	567.8	567.6	567.8	568.0	568.2	568.4	569.0
175°	572.6	572.0	571.3	570.7	570.0	569.8	570.0	570.1	570.3	570.5	571.2
177.5°	573.0	572.5	572.0	571.5	570.9	570.7	570.8	570.8	570.9	571.0	571.6
180°	571.3	571.3	571.3	571.3	571.3	571.3	571.3	571.3	571.3	571.3	571.3



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CATALOG NUMBER: SA2XXDIP-C675D530U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
2.5°	556.2	556.9	557.6	557.9	557.5	557.3	557.0	556.7
5°	554.5	555.6	556.7	557.1	556.9	556.7	556.6	556.3
7.5°	551.8	553.2	554.4	555.0	554.8	554.6	554.4	554.3
10°	549.5	551.0	552.5	553.0	552.9	552.7	552.5	552.3
12.5°	545.7	547.1	548.6	549.1	549.0	548.8	548.7	548.4
15°	538.6	540.2	541.9	542.6	542.4	542.2	542.0	541.9
17.5°	529.5	531.2	532.9	533.8	533.8	533.8	533.8	533.8
20°	522.4	524.3	526.2	527.3	527.3	527.3	527.3	527.3
22.5°	514.6	516.6	518.5	519.7	519.9	520.2	520.5	520.8
25°	502.5	504.6	506.8	508.1	508.7	509.2	509.8	510.3
27.5°	489.1	491.8	494.6	496.1	496.5	496.9	497.3	497.6
30°	479.7	482.5	485.4	487.1	487.7	488.2	488.7	489.3
32.5°	469.5	472.9	476.1	478.2	479.3	480.2	481.2	482.1
35°	455.1	459.1	463.0	465.6	466.9	468.2	469.4	470.6
37.5°	440.3	444.7	449.1	451.9	453.3	454.6	455.9	457.2
40°	429.8	434.5	439.2	442.4	443.9	445.6	447.2	448.9
42.5°	419.7	424.8	429.9	433.3	434.9	436.6	438.2	439.7
45°	404.2	409.7	415.3	419.0	420.8	422.6	424.4	426.2
47.5°	388.0	393.9	399.7	403.5	405.5	407.5	409.5	411.5
50°	376.9	383.0	389.2	393.2	395.2	397.2	399.1	401.1
52.5°	365.0	371.2	377.5	381.7	383.7	385.9	388.0	390.1
55°	346.9	353.4	359.9	364.2	366.6	368.9	371.3	373.6
57.5°	327.9	334.9	341.8	346.5	348.9	351.3	353.6	356.0
60°	315.3	322.1	329.0	333.7	336.1	338.7	341.2	343.7
62.5°	301.9	309.2	316.5	321.3	323.6	326.0	328.4	330.7
65°	281.6	289.0	296.4	301.2	303.6	305.9	308.2	310.5
67.5°	261.0	268.5	275.9	280.9	283.3	285.7	288.2	290.7
70°	246.8	254.4	262.2	267.1	269.3	271.5	273.6	275.8
72.5°	232.9	240.4	248.0	253.1	255.7	258.3	260.9	263.5
75°	212.0	219.7	227.4	232.4	234.8	237.1	239.5	241.8
77.5°	191.5	199.2	206.9	212.0	214.5	217.1	219.5	222.0
80°	177.6	185.2	192.7	197.8	200.3	202.8	205.3	207.9
82.5°	164.7	172.2	179.8	184.7	187.1	189.5	191.9	194.2
85°	146.1	153.7	161.2	166.2	168.7	171.3	173.8	176.3
87.5°	132.3	139.7	147.2	152.0	154.4	156.7	159.1	161.4
90°	130.3	138.0	145.6	150.6	153.0	155.3	157.6	159.9
92.5°	125.1	132.4	139.7	144.4	146.7	148.9	151.2	153.5
95°	123.7	131.0	138.3	143.0	145.0	147.1	149.2	151.2
97.5°	121.7	128.7	135.7	140.3	142.5	144.8	147.0	149.2
100°	119.2	126.6	134.0	138.7	140.9	143.1	145.2	147.4
102.5°	115.5	122.9	130.4	135.2	137.5	139.7	142.0	144.2
105°	109.4	116.7	124.0	128.8	131.1	133.5	135.9	138.2
107.5°	108.2	113.3	118.3	121.9	124.3	126.6	129.0	131.3
110°	124.5	121.0	117.6	117.1	119.5	121.8	124.1	126.4



TEST NUMBER: P331342-927

CATALOG NUMBER: SA2XXDIP-C675D530U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	181.5	153.7	126.0	113.2	115.4	117.7	120.0	122.2
115°	229.3	192.2	155.0	134.1	129.5	124.8	120.3	115.6
117.5°	314.5	309.5	304.5	292.1	272.2	252.3	232.4	212.5
120°	353.3	359.4	365.6	363.5	353.0	342.6	332.2	321.7
122.5°	367.8	373.4	378.9	381.3	380.6	379.9	379.1	378.4
125°	387.9	393.3	398.8	402.5	404.4	406.3	408.2	410.1
127.5°	405.9	411.3	416.8	420.3	421.9	423.5	425.2	426.8
130°	417.5	422.8	428.1	431.4	432.8	434.1	435.5	436.8
132.5°	428.6	433.6	438.6	441.8	443.1	444.5	445.8	447.2
135°	444.5	449.2	453.9	456.9	458.1	459.4	460.7	461.9
137.5°	459.1	463.3	467.5	470.1	471.0	471.9	472.8	473.7
140°	468.7	472.5	476.2	478.3	479.0	479.5	480.1	480.8
142.5°	478.4	481.4	484.5	486.2	486.7	487.2	487.7	488.1
145°	492.5	494.2	496.0	497.0	497.5	497.9	498.4	498.8
147.5°	505.3	506.0	506.6	506.9	507.0	507.0	507.1	507.2
150°	514.1	514.7	515.2	515.3	514.8	514.4	513.9	513.5
152.5°	522.4	523.0	523.6	523.5	522.9	522.3	521.7	521.1
155°	533.6	534.2	534.7	534.6	533.9	533.1	532.4	531.6
157.5°	543.0	543.6	544.2	544.2	543.4	542.7	542.0	541.3
160°	548.4	549.0	549.5	549.5	548.9	548.3	547.6	546.9
162.5°	553.6	554.2	554.8	554.8	554.0	553.2	552.4	551.6
165°	559.8	560.5	561.1	561.1	560.5	559.8	559.2	558.5
167.5°	565.0	565.7	566.3	566.3	565.4	564.6	563.7	562.9
170°	567.7	568.3	568.9	568.9	568.0	567.2	566.4	565.5
172.5°	569.7	570.3	570.9	570.8	570.1	569.2	568.4	567.5
175°	571.8	572.4	573.1	573.0	572.0	571.1	570.2	569.3
177.5°	572.0	572.6	573.1	573.0	572.4	571.6	571.0	570.4
180°	571.3	571.3	571.3	571.3	571.3	571.3	571.3	571.3

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