

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: P332540-940

Luminaire Tested: **SA4XXDIP-C575D365U940-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P332540-940  
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: SA4XXDIP-C575D365U940-4F0-1E-UDD-D4  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3279.8 lumens  
Efficiency: N/A  
Efficacy: 119.3 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

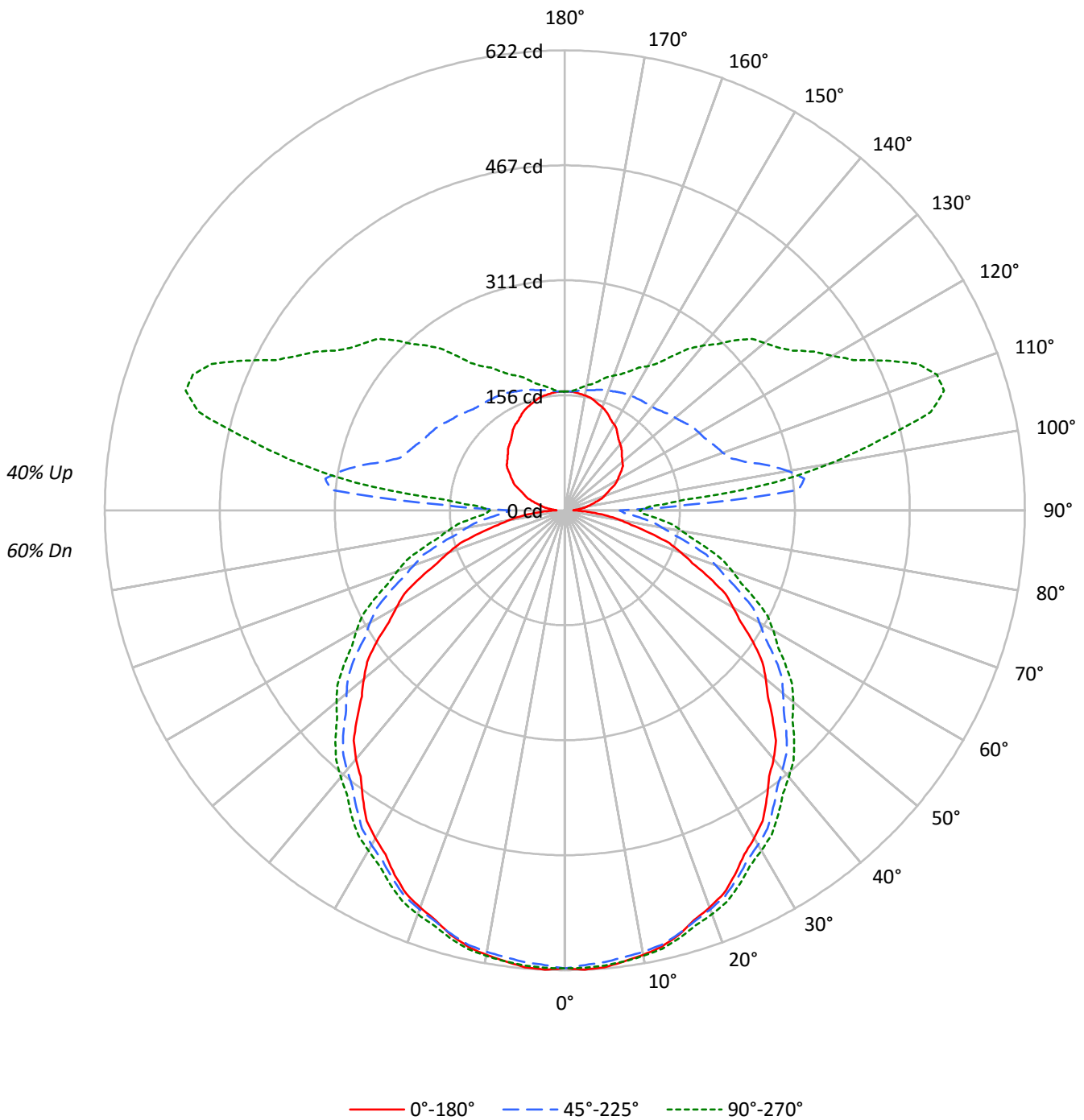
Input Watts (W): 27.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P332540-940

CATALOG NUMBER: SA4XXDIP-C575D365U940-4F0-1E-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	50	30	10	0	
RCR																						
0	109	109	109	109	102	102	102	102	89	89	89	76	76	76	65	65	65	60				
1	99	94	89	85	92	88	84	80	76	73	70	65	63	61	55	54	52	48				
2	89	81	74	69	83	76	70	65	66	61	57	57	53	50	48	46	43	39				
3	81	71	63	57	75	66	59	54	58	52	48	50	45	42	42	39	36	32				
4	74	63	54	48	69	59	51	45	51	45	40	44	39	35	37	34	31	27				
5	68	56	47	41	63	52	44	39	46	39	35	39	34	31	34	30	27	24				
6	63	50	41	35	58	47	39	33	41	35	30	35	30	27	30	26	23	21				
7	58	45	37	31	54	42	35	29	37	31	26	32	27	23	28	24	21	18				
8	54	41	33	27	50	38	31	26	34	28	23	29	24	21	25	21	18	16				
9	50	37	29	24	46	35	28	23	31	25	21	27	22	19	23	19	17	14				
10	47	34	27	22	43	32	25	21	28	23	19	25	20	17	22	18	15	13				

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

	0°	45°	90°
0°	5002	5002	5002
5°	5018	4889	4903
10°	4987	4809	4805
15°	4943	4717	4690
20°	4875	4614	4579
25°	4799	4500	4456
30°	4717	4386	4330
35°	4624	4269	4220
40°	4550	4158	4105
45°	4439	4056	4005
50°	4344	3938	3901
55°	4249	3827	3778
60°	4098	3685	3667
65°	3933	3533	3529
70°	3733	3359	3369
75°	3453	3169	3224
80°	3143	2984	3082
85°	2746	2820	2999



TEST NUMBER: P332540-940

CATALOG NUMBER: SA4XXDIP-C575D365U940-4F0-1E-UDD-D4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.7	1.8
10°-20°	168.1	5.1
20°-30°	254.2	7.8
30°-40°	307.6	9.4
40°-50°	325.2	9.9
50°-60°	306.0	9.3
60°-70°	253.9	7.7
70°-80°	178.3	5.4
80°-90°	101.7	3.1
90°-100°	175.7	5.4
100°-110°	285.5	8.7
110°-120°	245.7	7.5
120°-130°	198.5	6.1
130°-140°	158.7	4.8
140°-150°	117.2	3.6
150°-160°	81.4	2.5
160°-170°	47.8	1.5
170°-180°	15.6	0.5
0°-30°	481.0	14.7
0°-40°	788.6	24.0
0°-60°	1419.8	43.3
0°-90°	1953.7	59.6
90°-120°	706.9	21.6
90°-150°	1181.3	36.0
90°-180°	1326.0	40.4
0°-180°	3279.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	620	620	620	620	620	
5°	620	618	613	619	618	59
15°	595	595	593	599	599	167
25°	544	548	550	558	559	250
35°	476	484	491	501	503	298
45°	397	410	423	435	438	307
55°	311	326	346	360	364	277
65°	215	237	261	278	284	213
75°	119	145	174	193	200	127
85°	37	66	97	117	125	39
90°	11	42	74	94	101	8
95°	19	65	317	206	162	19
105°	43	74	252	508	512	46
115°	69	93	217	402	478	69
125°	93	111	203	334	376	83
135°	109	130	188	285	325	84
145°	125	142	181	230	255	78
155°	141	152	176	199	208	65
165°	154	158	169	178	181	43
175°	160	160	162	164	163	15
180°	160	160	160	160	160	



TEST NUMBER: P332540-940

CATALOG NUMBER: SA4XXDIP-C575D365U940-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6
2.5°	621.9	621.5	621.2	620.7	620.4	619.7	618.8	617.8	616.7	615.7	616.6
5°	620.4	619.9	619.4	618.9	618.5	617.7	616.6	615.5	614.5	613.4	614.7
7.5°	615.1	614.7	614.5	614.2	613.9	613.4	612.5	611.6	610.6	609.8	611.2
10°	610.6	610.5	610.3	610.2	610.0	609.6	608.8	608.0	607.3	606.5	607.9
12.5°	604.5	604.5	604.5	604.4	604.4	604.1	603.6	603.1	602.5	602.0	603.2
15°	594.7	594.9	594.9	595.1	595.3	595.1	594.7	594.2	593.7	593.3	594.7
17.5°	581.2	581.7	582.1	582.6	583.1	583.3	583.2	583.1	583.0	582.9	584.2
20°	571.8	572.2	572.7	573.2	573.6	573.9	574.1	574.3	574.4	574.5	576.0
22.5°	561.2	561.8	562.4	562.9	563.6	564.0	564.3	564.5	564.8	565.1	566.7
25°	544.0	544.9	545.9	546.8	547.7	548.4	548.8	549.3	549.8	550.3	552.0
27.5°	524.9	526.2	527.5	529.0	530.3	531.3	532.0	532.7	533.4	534.1	535.7
30°	512.1	513.4	514.5	515.8	517.0	518.2	519.2	520.3	521.4	522.5	524.2
32.5°	498.2	499.7	501.1	502.7	504.2	505.5	506.7	507.9	509.1	510.3	512.2
35°	476.0	477.9	479.7	481.5	483.4	485.1	486.6	488.2	489.7	491.2	493.5
37.5°	453.7	455.8	457.9	460.0	462.2	464.2	466.1	468.1	469.9	471.8	474.0
40°	439.3	441.2	443.3	445.2	447.3	449.3	451.5	453.6	455.8	458.0	460.3
42.5°	422.6	424.8	427.0	429.4	431.6	434.0	436.5	439.0	441.6	444.1	446.7
45°	396.9	399.8	402.8	405.7	408.6	411.5	414.5	417.4	420.4	423.3	425.9
47.5°	372.4	375.3	378.4	381.4	384.4	387.6	391.0	394.4	397.8	401.2	403.9
50°	354.5	357.9	361.3	364.8	368.2	371.6	375.0	378.4	381.7	385.1	388.2
52.5°	336.8	340.2	343.6	347.0	350.4	354.0	357.9	361.8	365.7	369.5	372.6
55°	310.9	314.1	317.4	320.6	323.8	327.7	332.3	337.0	341.6	346.3	349.4
57.5°	281.9	285.9	289.9	293.9	297.9	302.2	306.7	311.4	316.0	320.6	324.2
60°	263.0	267.0	271.0	275.0	279.0	283.6	288.6	293.7	298.8	303.9	307.5
62.5°	244.7	249.1	253.4	257.8	262.2	266.9	272.0	277.1	282.2	287.3	290.8
65°	215.1	220.1	225.0	229.9	234.9	240.0	245.1	250.4	255.7	260.9	264.7
67.5°	186.6	191.9	197.2	202.4	207.6	213.0	218.6	224.3	229.9	235.5	239.4
70°	167.2	172.5	177.7	183.0	188.2	193.8	199.6	205.5	211.3	217.2	221.3
72.5°	148.4	153.7	159.1	164.4	169.8	175.6	181.8	188.1	194.3	200.5	204.6
75°	119.3	125.0	130.7	136.4	142.1	148.3	154.7	161.2	167.7	174.2	178.5
77.5°	92.3	98.4	104.4	110.4	116.5	122.9	129.7	136.4	143.2	150.0	154.4
80°	75.6	81.8	88.0	94.2	100.3	106.7	113.6	120.4	127.2	133.9	138.6
82.5°	58.9	65.4	71.8	78.2	84.6	91.2	98.0	104.8	111.6	118.4	123.1
85°	36.7	43.2	49.8	56.2	62.7	69.4	76.3	83.3	90.2	97.1	101.7
87.5°	20.6	27.0	33.5	39.9	46.2	52.7	59.8	66.6	73.5	80.3	84.8
90°	11.4	18.2	25.3	31.8	38.3	44.7	53.2	59.8	67.1	74.4	78.6
92.5°	14.2	21.3	29.9	39.2	49.4	62.1	84.7	115.7	146.2	165.3	153.0
95°	19.4	25.4	33.7	42.9	55.6	74.5	108.3	166.2	247.9	317.2	328.6
97.5°	26.8	31.2	38.3	46.5	57.3	73.7	101.1	150.1	231.2	326.6	391.9
100°	31.6	35.6	41.8	49.6	59.6	74.7	99.3	140.9	211.2	306.1	390.9
102.5°	36.6	40.7	46.1	53.1	62.4	76.7	99.4	136.6	197.2	281.9	369.2
105°	43.2	47.2	51.8	58.7	67.4	81.0	101.8	133.7	183.5	252.5	330.5
107.5°	51.7	54.8	58.9	65.5	73.5	86.4	105.7	134.9	178.0	234.4	298.6
110°	56.9	59.7	63.4	69.4	77.2	89.5	108.8	136.3	176.3	227.4	282.3



TEST NUMBER: P332540-940

CATALOG NUMBER: SA4XXDIP-C575D365U940-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	61.9	64.5	68.2	73.7	81.2	93.3	111.7	137.8	175.3	222.3	271.6
115°	69.1	71.4	75.0	79.5	86.9	98.6	116.1	140.0	174.2	217.0	260.1
117.5°	77.2	79.0	81.8	86.1	92.5	104.1	120.6	142.6	173.5	212.5	252.4
120°	82.2	83.4	86.1	90.0	95.8	107.1	123.5	144.4	173.1	209.7	247.8
122.5°	87.3	88.0	90.3	93.6	99.6	110.3	126.5	146.2	172.8	206.7	243.0
125°	93.2	94.3	96.0	99.3	105.2	115.9	131.1	149.5	173.2	202.9	236.0
127.5°	99.0	99.8	101.9	105.8	111.8	122.1	136.1	152.3	172.6	198.0	227.2
130°	101.7	102.8	105.1	109.7	115.6	125.8	139.0	153.8	172.4	194.9	221.7
132.5°	105.0	105.8	109.0	113.2	119.6	129.1	141.8	155.9	172.4	192.5	216.9
135°	108.9	110.1	113.2	118.6	125.3	133.9	145.4	157.9	171.9	188.1	208.8
137.5°	113.4	114.5	117.8	122.8	129.5	137.5	147.8	158.8	170.9	184.9	202.2
140°	116.7	117.5	120.8	126.0	132.5	140.1	149.7	159.9	170.8	182.9	198.5
142.5°	119.7	120.6	123.8	128.9	135.2	142.5	151.6	160.8	170.9	181.8	195.6
145°	124.6	125.4	128.3	132.6	138.4	145.3	153.5	162.0	171.1	180.9	191.9
147.5°	130.2	130.3	133.0	137.3	142.1	148.3	156.0	163.5	171.5	179.8	188.8
150°	133.7	133.8	136.3	139.8	144.5	150.3	157.3	164.2	171.5	179.0	186.9
152.5°	136.4	136.4	138.9	142.4	146.6	152.1	158.3	164.7	170.9	177.7	184.9
155°	140.9	141.2	143.1	146.2	149.7	154.4	159.8	165.1	170.2	175.8	181.8
157.5°	145.3	145.3	147.1	149.5	152.6	156.3	160.9	165.1	169.3	173.9	178.8
160°	148.1	148.1	149.4	151.6	154.1	157.6	161.4	165.1	168.6	172.4	176.5
162.5°	150.6	150.4	151.4	153.4	155.6	158.4	161.8	165.1	167.8	170.9	174.5
165°	153.5	153.5	154.1	155.7	157.3	159.2	162.0	164.5	166.4	168.6	171.1
167.5°	156.3	156.0	156.3	157.5	158.4	159.9	161.9	163.7	164.9	166.3	168.1
170°	157.6	157.3	157.6	158.5	159.2	160.1	161.7	163.3	163.9	164.8	166.1
172.5°	158.8	158.5	158.5	159.3	159.6	160.3	161.4	162.7	162.9	163.3	164.3
175°	160.1	159.8	159.8	160.1	160.4	160.4	161.0	162.0	161.7	161.7	162.3
177.5°	160.7	160.4	160.2	160.4	160.4	160.4	160.7	161.1	160.7	160.7	161.0
180°	160.4	160.4	160.4	160.4	160.4	160.4	160.4	160.4	160.4	160.4	160.4



TEST NUMBER: P332540-940

CATALOG NUMBER: SA4XXDIP-C575D365U940-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6
2.5°	617.5	618.3	619.2	619.6	619.5	619.3	619.2	619.1
5°	615.9	617.1	618.3	618.8	618.8	618.6	618.4	618.2
7.5°	612.6	613.9	615.4	616.0	615.8	615.6	615.5	615.4
10°	609.2	610.6	612.0	612.6	612.5	612.3	612.2	612.0
12.5°	604.6	605.8	607.1	607.7	607.7	607.6	607.6	607.6
15°	596.0	597.4	598.8	599.4	599.3	599.1	599.0	598.8
17.5°	585.7	587.1	588.5	589.2	589.1	589.0	588.8	588.7
20°	577.7	579.2	580.7	581.5	581.5	581.5	581.5	581.5
22.5°	568.2	569.7	571.2	572.2	572.4	572.7	572.9	573.2
25°	553.7	555.4	557.1	557.9	558.1	558.3	558.4	558.6
27.5°	537.3	538.9	540.5	541.4	541.5	541.7	541.9	542.1
30°	525.9	527.6	529.3	530.3	530.6	530.9	531.2	531.5
32.5°	514.2	516.1	518.1	519.2	519.5	519.8	520.1	520.4
35°	495.6	497.8	499.9	501.2	501.7	502.1	502.6	503.1
37.5°	476.3	478.4	480.6	482.0	482.4	483.0	483.4	483.9
40°	462.6	464.9	467.3	468.7	469.3	469.9	470.6	471.2
42.5°	449.2	451.7	454.3	455.8	456.4	456.8	457.4	457.8
45°	428.6	431.1	433.7	435.4	436.2	437.0	437.7	438.5
47.5°	406.6	409.4	412.1	413.8	414.8	415.7	416.7	417.6
50°	391.3	394.4	397.4	399.5	400.4	401.3	402.3	403.1
52.5°	375.8	378.8	381.9	383.9	384.9	385.8	386.6	387.6
55°	352.4	355.5	358.6	360.6	361.5	362.5	363.4	364.3
57.5°	327.9	331.6	335.3	337.5	338.4	339.2	340.1	341.0
60°	311.0	314.6	318.1	320.5	321.7	323.0	324.2	325.5
62.5°	294.4	297.9	301.5	303.8	305.1	306.3	307.6	308.8
65°	268.6	272.5	276.3	278.8	280.1	281.3	282.6	283.8
67.5°	243.3	247.3	251.2	253.7	254.9	256.1	257.3	258.5
70°	225.5	229.7	233.8	236.5	237.6	238.6	239.7	240.8
72.5°	208.6	212.7	216.7	219.3	220.5	221.7	222.9	224.1
75°	182.8	187.1	191.5	194.3	195.6	197.1	198.5	199.8
77.5°	158.8	163.2	167.6	170.5	171.9	173.4	174.9	176.4
80°	143.2	147.8	152.4	155.3	156.6	157.8	159.1	160.3
82.5°	127.9	132.6	137.4	140.4	141.8	143.1	144.5	145.9
85°	106.4	111.0	115.7	118.8	120.3	121.8	123.3	124.9
87.5°	89.3	93.9	98.4	101.3	102.7	104.2	105.4	106.8
90°	83.3	88.1	92.9	95.8	97.3	98.8	99.8	101.0
92.5°	136.0	125.0	119.8	116.3	113.8	113.3	113.5	114.8
95°	302.2	257.5	219.5	191.7	177.6	169.2	165.0	162.2
97.5°	409.2	395.0	368.3	338.0	316.7	299.1	291.0	285.8
100°	441.1	451.6	440.3	419.6	393.2	375.1	366.8	365.3
102.5°	436.3	471.6	480.2	473.1	457.4	444.7	436.0	435.2
105°	406.4	464.8	499.9	515.4	517.3	515.9	512.7	512.1
107.5°	366.3	428.2	475.9	506.5	523.2	531.5	535.7	537.6
110°	342.0	400.0	449.2	486.3	509.9	524.4	531.3	535.4





TEST NUMBER: P332540-940

CATALOG NUMBER: SA4XXDIP-C575D365U940-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	323.1	374.7	421.2	458.3	484.9	502.1	511.3	517.2
115°	302.8	345.0	385.3	417.8	443.7	463.8	474.9	478.5
117.5°	290.5	325.8	358.0	385.8	408.3	425.4	436.9	440.1
120°	284.0	316.4	344.6	369.2	388.4	403.5	413.0	417.6
122.5°	278.1	309.5	335.6	357.3	373.5	386.6	394.6	399.1
125°	269.2	299.3	324.0	343.2	356.7	366.8	373.7	376.5
127.5°	258.4	287.1	311.6	329.9	343.7	352.8	358.9	361.9
130°	250.7	278.3	302.5	321.0	334.9	343.7	349.6	352.5
132.5°	242.9	268.9	292.5	310.9	324.6	334.4	340.1	343.0
135°	231.1	254.1	275.8	293.3	306.7	316.6	322.5	325.3
137.5°	220.9	240.5	259.0	274.7	287.2	296.8	301.7	304.7
140°	215.0	231.8	248.0	262.6	274.4	282.1	287.3	290.6
142.5°	209.8	224.6	238.5	251.3	261.6	268.8	273.3	275.7
145°	203.0	214.5	225.0	234.5	243.0	249.0	252.8	254.9
147.5°	197.2	205.8	213.6	220.8	227.0	232.2	235.1	236.1
150°	194.5	201.7	208.0	213.7	218.7	222.8	224.7	225.0
152.5°	191.7	198.0	203.8	208.4	212.7	216.0	217.1	217.5
155°	187.5	192.5	197.2	201.1	204.2	206.7	207.7	207.7
157.5°	183.1	187.3	191.3	194.3	196.6	198.6	199.1	199.1
160°	180.3	183.7	187.2	189.8	191.6	193.5	193.9	193.9
162.5°	177.5	180.5	183.2	185.5	186.8	188.7	189.0	188.8
165°	173.6	175.6	177.7	179.3	180.6	181.8	181.6	181.2
167.5°	170.0	171.4	173.2	174.1	174.7	175.6	175.5	175.2
170°	167.6	168.6	169.9	170.9	171.5	171.7	171.5	171.5
172.5°	165.7	166.3	167.1	167.8	168.2	168.4	168.2	167.6
175°	162.9	163.3	163.9	163.9	163.9	164.5	163.9	163.3
177.5°	161.1	161.4	161.4	161.7	161.4	161.7	161.1	160.7
180°	160.4	160.4	160.4	160.4	160.4	160.4	160.4	160.4

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