

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: P333182-840

Luminaire Tested: **S125DIP-S610D810U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333182-840  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIP-S610D810U840-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5257.8 lumens  
Efficiency: N/A  
Efficacy: 136.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

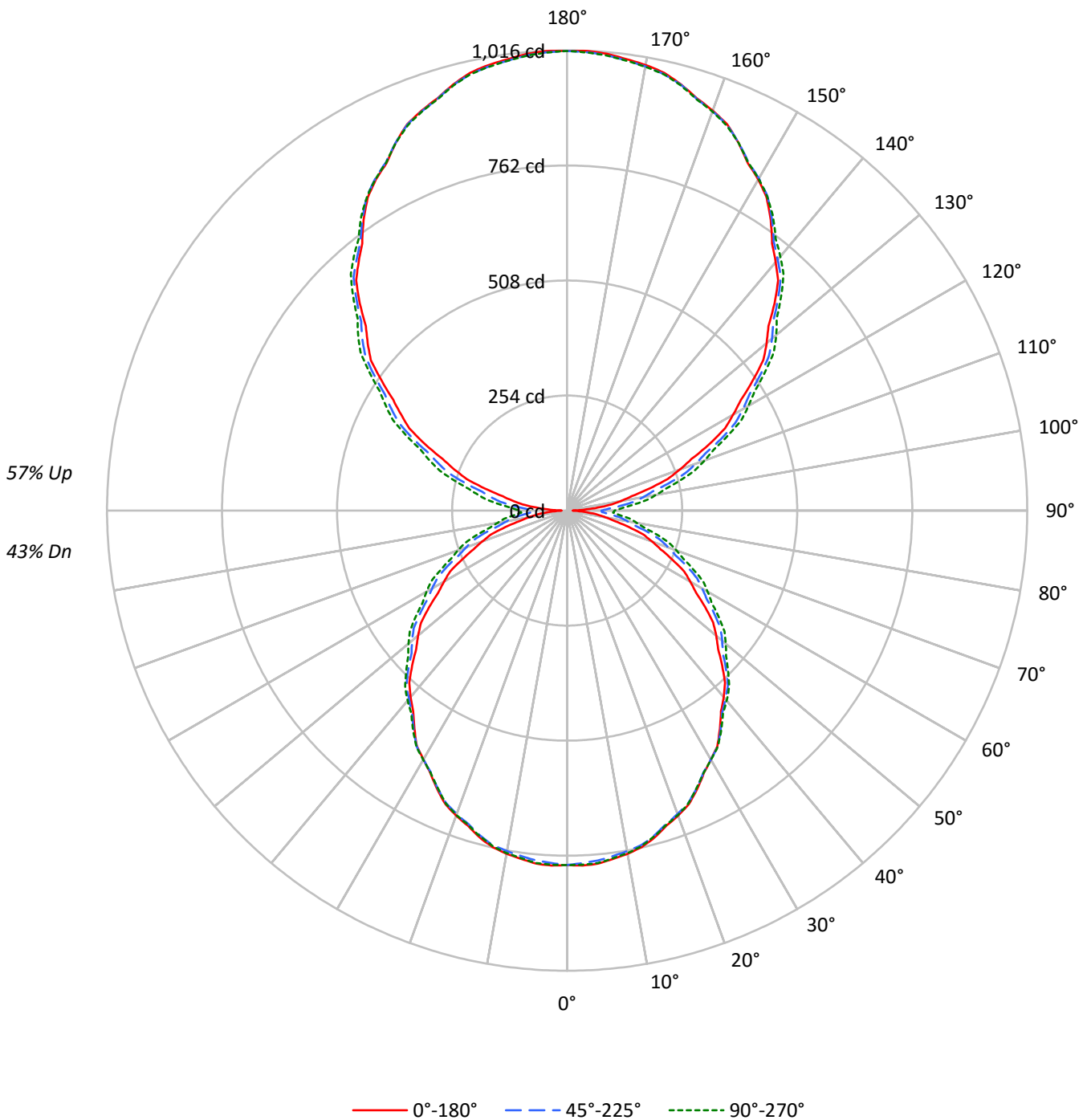
Input Watts (W): 38.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	106	106	106	106	97	97	97	97	80	80	80	64	64	64	50	50	50	43
1	96	91	87	83	87	83	80	77	69	66	64	55	54	52	43	42	41	35
2	87	79	73	67	79	72	67	62	60	56	52	48	45	43	38	36	34	29
3	79	69	62	56	72	64	57	52	53	48	44	42	39	36	33	31	29	24
4	72	61	53	47	66	56	49	44	47	41	37	38	34	31	29	27	24	21
5	66	54	46	40	60	50	43	37	42	36	32	34	30	26	26	24	21	18
6	61	49	40	35	55	45	38	32	37	32	28	30	26	23	24	21	19	16
7	56	44	36	30	51	40	33	28	34	28	24	28	23	20	22	19	16	14
8	52	40	32	27	47	37	30	25	31	25	21	25	21	18	20	17	15	12
9	48	36	29	24	44	33	27	22	28	23	19	23	19	16	18	15	13	11
10	45	33	26	21	41	31	24	20	26	21	17	21	17	15	17	14	12	10

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

	0°	45°	90°
0°	5054	5054	5054
5°	5064	4961	4977
10°	5029	4873	4865
15°	4969	4767	4723
20°	4888	4635	4581
25°	4792	4495	4406
30°	4676	4340	4247
35°	4567	4199	4102
40°	4457	4049	3955
45°	4331	3922	3825
50°	4213	3783	3710
55°	4069	3652	3575
60°	3913	3503	3437
65°	3749	3347	3282
70°	3561	3133	3123
75°	3269	2928	2928
80°	2884	2679	2713
85°	2526	2512	2645



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.0	1.4
10°-20°	210.1	4.0
20°-30°	312.4	5.9
30°-40°	370.1	7.0
40°-50°	382.6	7.3
50°-60°	352.5	6.7
60°-70°	284.9	5.4
70°-80°	190.8	3.6
80°-90°	101.2	1.9
90°-100°	123.5	2.3
100°-110°	241.6	4.6
110°-120°	367.4	7.0
120°-130°	462.9	8.8
130°-140°	508.1	9.7
140°-150°	492.7	9.4
150°-160°	412.7	7.8
160°-170°	274.3	5.2
170°-180°	96.0	1.8
0°-30°	596.5	11.3
0°-40°	966.6	18.4
0°-60°	1701.7	32.4
0°-90°	2278.6	43.3
90°-120°	732.5	13.9
90°-150°	2196.2	41.8
90°-180°	2979.0	56.7
0°-180°	5257.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	783	783	783	783	783	
5°	783	781	776	781	781	74
15°	747	748	743	747	744	210
25°	679	681	677	679	676	312
35°	588	593	591	593	593	368
45°	484	492	496	502	503	373
55°	372	384	397	405	408	333
65°	256	274	292	303	307	254
75°	141	161	186	200	205	150
85°	42	68	94	111	117	45
90°	13	44	76	96	105	11
95°	61	84	117	138	146	63
105°	187	204	231	250	259	200
115°	345	354	375	388	392	341
125°	500	504	520	530	534	447
135°	648	652	658	667	668	499
145°	783	786	788	792	793	489
155°	895	895	896	899	895	412
165°	974	972	973	976	971	275
175°	1012	1009	1009	1013	1008	96
180°	1015	1015	1015	1015	1015	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6
2.5°	784.5	784.2	784.0	783.7	783.4	782.7	781.8	780.8	779.9	778.9	779.9
5°	782.6	782.2	781.9	781.6	781.2	780.5	779.3	778.1	776.9	775.7	777.1
7.5°	775.7	775.6	775.5	775.3	775.2	774.5	773.3	772.0	770.8	769.6	770.7
10°	769.6	769.6	769.6	769.6	769.6	768.9	767.5	766.2	764.8	763.5	764.7
12.5°	761.0	761.1	761.2	761.4	761.5	761.0	759.9	758.9	757.8	756.7	757.6
15°	747.3	747.5	747.7	747.8	748.0	747.5	746.3	745.1	744.0	742.8	743.8
17.5°	729.5	729.8	730.2	730.5	730.9	730.4	729.3	728.1	726.9	725.7	726.5
20°	716.6	717.0	717.3	717.7	718.0	717.6	716.4	715.2	714.0	712.8	713.3
22.5°	702.0	702.6	703.2	703.8	704.4	704.0	702.7	701.4	700.0	698.7	699.3
25°	679.0	679.5	680.0	680.5	681.1	680.9	679.8	678.8	677.7	676.7	677.4
27.5°	653.6	654.3	655.1	655.8	656.6	656.4	655.2	654.1	652.9	651.8	652.2
30°	634.5	635.6	636.6	637.6	638.6	638.6	637.6	636.6	635.6	634.5	634.9
32.5°	617.3	618.2	619.1	620.1	620.9	621.0	620.3	619.5	618.7	617.9	618.3
35°	587.7	589.0	590.2	591.3	592.5	592.9	592.4	591.8	591.3	590.8	591.3
37.5°	558.2	559.3	560.3	561.4	562.5	562.9	562.8	562.6	562.4	562.3	562.9
40°	537.9	539.3	540.6	542.0	543.3	543.9	543.7	543.6	543.4	543.2	543.9
42.5°	515.7	517.6	519.3	521.1	522.9	523.9	524.3	524.7	525.0	525.4	526.2
45°	484.1	486.0	487.9	489.8	491.7	493.0	493.9	494.7	495.5	496.4	497.7
47.5°	451.8	453.5	455.2	457.0	458.8	460.3	461.8	463.2	464.7	466.2	468.0
50°	429.7	431.5	433.4	435.4	437.2	439.1	440.9	442.8	444.6	446.6	448.5
52.5°	406.4	408.6	410.9	413.2	415.5	417.8	420.1	422.3	424.6	426.9	428.9
55°	372.1	374.9	377.6	380.3	383.0	385.8	388.5	391.2	393.9	396.7	398.6
57.5°	337.2	340.4	343.7	347.0	350.2	353.5	356.6	359.7	362.8	366.0	368.1
60°	313.9	317.2	320.6	324.1	327.5	330.8	334.3	337.7	341.1	344.5	347.1
62.5°	291.1	294.5	297.9	301.3	304.8	308.3	311.9	315.7	319.3	323.1	325.9
65°	256.3	260.2	264.1	268.0	272.0	276.0	280.0	284.2	288.2	292.4	294.9
67.5°	223.5	227.2	231.0	234.8	238.5	242.6	246.7	250.9	255.0	259.2	262.3
70°	199.4	203.4	207.3	211.3	215.2	219.3	223.8	228.2	232.7	237.1	240.3
72.5°	176.1	180.3	184.3	188.3	192.4	196.8	201.7	206.5	211.4	216.2	219.7
75°	141.2	145.6	150.1	154.5	159.0	163.9	169.4	174.8	180.3	185.7	189.0
77.5°	107.6	112.7	117.9	122.9	128.1	133.2	138.5	143.7	149.0	154.2	157.9
80°	86.7	91.8	96.9	102.1	107.1	112.6	118.5	124.2	130.0	135.8	139.6
82.5°	67.7	73.0	78.5	83.8	89.3	94.9	100.8	106.7	112.7	118.7	122.2
85°	42.2	47.9	53.4	59.1	64.7	70.5	76.4	82.4	88.4	94.4	98.2
87.5°	24.1	29.8	35.5	41.3	47.1	52.9	59.0	65.0	71.1	77.2	81.2
90°	13.0	19.9	26.8	33.6	40.5	47.5	54.4	61.5	68.6	75.5	80.4
92.5°	30.2	36.2	42.2	48.3	54.2	61.0	68.5	75.9	83.3	90.8	95.7
95°	61.3	66.0	70.9	75.6	80.5	86.6	94.1	101.7	109.3	116.8	121.8
97.5°	94.3	98.5	102.6	106.7	110.9	116.9	124.9	133.0	141.0	149.0	153.7
100°	119.0	122.6	126.1	129.8	133.3	139.0	146.7	154.4	162.2	170.0	175.1
102.5°	145.5	149.6	153.6	157.5	161.6	166.8	173.3	179.8	186.2	192.8	197.9
105°	186.9	190.6	194.2	197.7	201.4	206.2	212.5	218.6	224.8	231.0	235.4
107.5°	232.8	236.0	239.1	242.4	245.6	250.0	255.7	261.5	267.2	272.9	276.8
110°	264.4	267.3	270.2	273.2	276.1	280.2	285.5	290.7	296.1	301.3	305.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	297.2	299.3	301.4	303.5	305.6	309.3	314.6	319.9	325.2	330.5	333.9
115°	345.0	346.9	348.7	350.6	352.5	355.9	360.6	365.5	370.2	375.0	377.9
117.5°	392.8	393.9	395.1	396.2	397.2	400.0	404.6	409.1	413.5	418.1	421.1
120°	423.1	424.5	426.0	427.3	428.7	431.4	435.6	439.6	443.7	447.9	450.7
122.5°	455.3	456.0	456.5	457.1	457.6	460.0	464.2	468.5	472.7	477.0	479.6
125°	499.8	500.7	501.5	502.4	503.3	505.5	509.1	512.7	516.2	519.9	522.3
127.5°	546.3	546.8	547.2	547.6	548.1	549.8	552.8	555.8	558.9	561.8	564.2
130°	574.8	575.5	576.2	576.9	577.6	579.4	582.1	584.8	587.5	590.3	592.5
132.5°	602.6	604.0	605.4	606.8	608.2	609.9	611.6	613.4	615.1	616.9	619.1
135°	647.5	648.3	649.2	650.2	651.1	652.2	653.5	654.9	656.2	657.6	659.8
137.5°	689.6	690.5	691.5	692.3	693.2	694.1	695.1	696.0	697.0	698.0	700.2
140°	716.2	717.1	717.9	718.8	719.7	720.5	721.2	721.9	722.6	723.3	725.5
142.5°	743.4	744.0	744.6	745.2	745.8	746.4	747.1	747.8	748.5	749.2	751.0
145°	783.4	783.9	784.4	785.0	785.5	786.0	786.5	787.0	787.6	788.1	788.9
147.5°	819.5	819.9	820.3	820.7	821.0	821.4	821.9	822.3	822.7	823.1	823.8
150°	844.1	843.9	843.8	843.6	843.4	843.7	844.4	845.2	845.9	846.6	846.6
152.5°	864.3	864.6	864.8	865.2	865.4	865.7	865.9	866.2	866.5	866.8	867.2
155°	895.4	895.4	895.4	895.4	895.4	895.5	895.8	896.0	896.1	896.3	897.0
157.5°	923.3	922.9	922.5	922.1	921.7	921.6	921.8	922.0	922.1	922.3	923.0
160°	939.7	939.2	938.7	938.2	937.6	937.5	937.6	937.8	938.0	938.2	938.9
162.5°	954.2	953.8	953.4	953.1	952.7	952.5	952.5	952.6	952.6	952.7	953.5
165°	973.7	973.3	973.0	972.6	972.3	972.2	972.3	972.5	972.7	972.9	973.6
167.5°	990.1	989.4	988.7	988.0	987.2	986.9	986.9	986.9	986.9	986.9	988.0
170°	999.0	998.3	997.5	996.8	996.1	995.7	995.7	995.7	995.7	995.7	996.8
172.5°	1005.2	1004.5	1003.8	1003.1	1002.4	1002.1	1002.1	1002.1	1002.1	1002.1	1003.1
175°	1012.4	1011.7	1011.0	1010.3	1009.6	1009.2	1009.2	1009.2	1009.2	1009.2	1010.3
177.5°	1016.0	1015.4	1014.9	1014.3	1013.7	1013.4	1013.3	1013.1	1013.0	1012.8	1013.7
180°	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6
2.5°	780.8	781.8	782.7	783.2	783.0	782.9	782.7	782.6
5°	778.4	779.8	781.1	781.7	781.6	781.4	781.2	781.1
7.5°	771.9	773.2	774.4	774.9	774.7	774.6	774.4	774.2
10°	765.9	767.0	768.2	768.7	768.6	768.4	768.2	768.0
12.5°	758.5	759.4	760.4	760.6	760.1	759.7	759.3	758.8
15°	744.8	745.8	746.8	747.0	746.3	745.6	745.0	744.3
17.5°	727.3	728.0	728.8	729.0	728.6	728.2	727.8	727.4
20°	713.9	714.4	714.9	715.1	715.1	715.1	715.1	715.1
22.5°	699.9	700.6	701.3	701.4	700.9	700.5	700.1	699.7
25°	678.1	678.8	679.4	679.4	678.5	677.7	676.8	676.0
27.5°	652.7	653.2	653.7	653.7	653.4	653.1	652.8	652.5
30°	635.2	635.6	635.9	636.0	635.8	635.6	635.5	635.3
32.5°	618.6	618.9	619.4	619.5	619.2	619.0	618.9	618.7
35°	591.8	592.4	592.9	593.1	593.1	593.1	593.1	593.1
37.5°	563.6	564.3	565.0	565.3	565.2	565.1	565.1	565.0
40°	544.6	545.3	545.9	546.4	546.8	547.1	547.5	547.9
42.5°	527.0	527.9	528.7	529.2	529.3	529.3	529.4	529.5
45°	498.8	500.0	501.2	501.9	502.1	502.2	502.4	502.6
47.5°	469.7	471.4	473.1	474.2	474.6	474.9	475.3	475.7
50°	450.3	452.2	454.0	455.2	455.8	456.3	456.8	457.3
52.5°	430.9	432.9	434.9	436.2	436.6	436.9	437.3	437.7
55°	400.4	402.3	404.1	405.5	406.2	406.9	407.5	408.2
57.5°	370.3	372.4	374.6	375.9	376.5	377.0	377.5	378.0
60°	349.6	352.1	354.8	356.3	356.8	357.3	357.8	358.3
62.5°	328.7	331.5	334.4	336.1	336.7	337.4	338.0	338.7
65°	297.4	300.0	302.6	304.2	304.9	305.6	306.2	306.9
67.5°	265.4	268.5	271.6	273.6	274.5	275.4	276.3	277.1
70°	243.6	246.8	250.0	252.2	253.2	254.2	255.3	256.3
72.5°	223.3	226.7	230.2	232.4	233.2	233.9	234.7	235.4
75°	192.5	195.9	199.3	201.5	202.3	203.2	204.0	204.9
77.5°	161.7	165.5	169.3	171.5	172.1	172.8	173.5	174.2
80°	143.3	147.0	150.8	153.0	153.7	154.4	155.1	155.7
82.5°	125.8	129.5	133.1	135.5	136.7	137.9	139.2	140.4
85°	101.9	105.6	109.4	111.9	113.3	114.6	116.0	117.3
87.5°	85.3	89.4	93.5	96.2	97.5	98.8	100.1	101.4
90°	85.1	90.0	94.7	98.1	99.8	101.5	103.2	104.9
92.5°	100.7	105.6	110.6	113.8	115.4	116.9	118.6	120.2
95°	126.7	131.8	136.7	140.0	141.6	143.1	144.6	146.1
97.5°	158.4	163.2	167.9	171.0	172.4	173.7	175.1	176.5
100°	180.3	185.4	190.6	193.8	195.2	196.6	197.9	199.3
102.5°	203.1	208.2	213.4	216.7	218.2	219.7	221.3	222.8
105°	239.8	244.3	248.8	251.9	253.6	255.3	257.0	258.7
107.5°	280.7	284.6	288.5	290.9	292.0	293.0	294.1	295.1
110°	308.9	312.7	316.5	318.8	319.8	320.8	321.9	323.0





TEST NUMBER: P333182-840

CATALOG NUMBER: S125DIP-S610D810U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	337.2	340.5	344.0	346.1	346.9	347.8	348.7	349.5
115°	380.8	383.6	386.6	388.5	389.3	390.1	391.0	391.8
117.5°	424.1	427.2	430.2	432.0	432.4	432.9	433.3	433.8
120°	453.6	456.6	459.4	461.0	461.4	461.7	462.0	462.3
122.5°	482.2	484.8	487.5	489.0	489.5	489.9	490.4	490.8
125°	524.6	527.0	529.4	530.9	531.6	532.3	532.9	533.6
127.5°	566.5	568.9	571.2	572.7	573.4	574.0	574.6	575.2
130°	594.7	596.9	599.2	600.6	601.0	601.5	602.0	602.5
132.5°	621.4	623.6	625.8	627.0	627.2	627.4	627.6	627.8
135°	662.1	664.3	666.5	667.6	667.8	667.9	668.1	668.2
137.5°	702.5	704.7	706.9	707.9	707.7	707.5	707.3	707.1
140°	727.7	729.9	732.2	733.3	733.1	732.9	732.7	732.5
142.5°	752.9	754.7	756.5	757.3	757.1	756.9	756.7	756.5
145°	789.8	790.6	791.5	792.0	792.1	792.3	792.4	792.6
147.5°	824.6	825.3	826.0	825.9	825.0	824.0	823.1	822.3
150°	846.6	846.6	846.6	846.5	846.3	846.1	845.9	845.8
152.5°	867.6	868.0	868.4	868.4	867.8	867.2	866.6	866.0
155°	897.7	898.4	899.1	899.0	898.1	897.3	896.4	895.4
157.5°	923.7	924.4	925.1	924.9	923.7	922.6	921.4	920.3
160°	939.6	940.2	940.9	940.9	940.0	939.1	938.2	937.4
162.5°	954.3	955.2	956.0	955.9	954.9	953.9	952.9	951.9
165°	974.3	975.0	975.6	975.5	974.4	973.4	972.3	971.3
167.5°	989.1	990.1	991.2	991.1	990.1	989.0	987.8	986.7
170°	997.8	999.0	1000.0	999.9	998.7	997.4	996.2	995.0
172.5°	1004.2	1005.2	1006.3	1006.3	1005.2	1004.1	1003.0	1001.9
175°	1011.3	1012.4	1013.4	1013.3	1012.1	1010.9	1009.7	1008.5
177.5°	1014.5	1015.3	1016.2	1016.1	1015.1	1014.2	1013.2	1012.2
180°	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7

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