

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: P331432-830

Luminaire Tested: **S122DIP-S1005D530U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P331432-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DIP-S1005D530U830-4F0-1E-UDD-D  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1005 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: 5796.2 lumens  
Efficiency: N/A  
Efficacy: 105.2 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

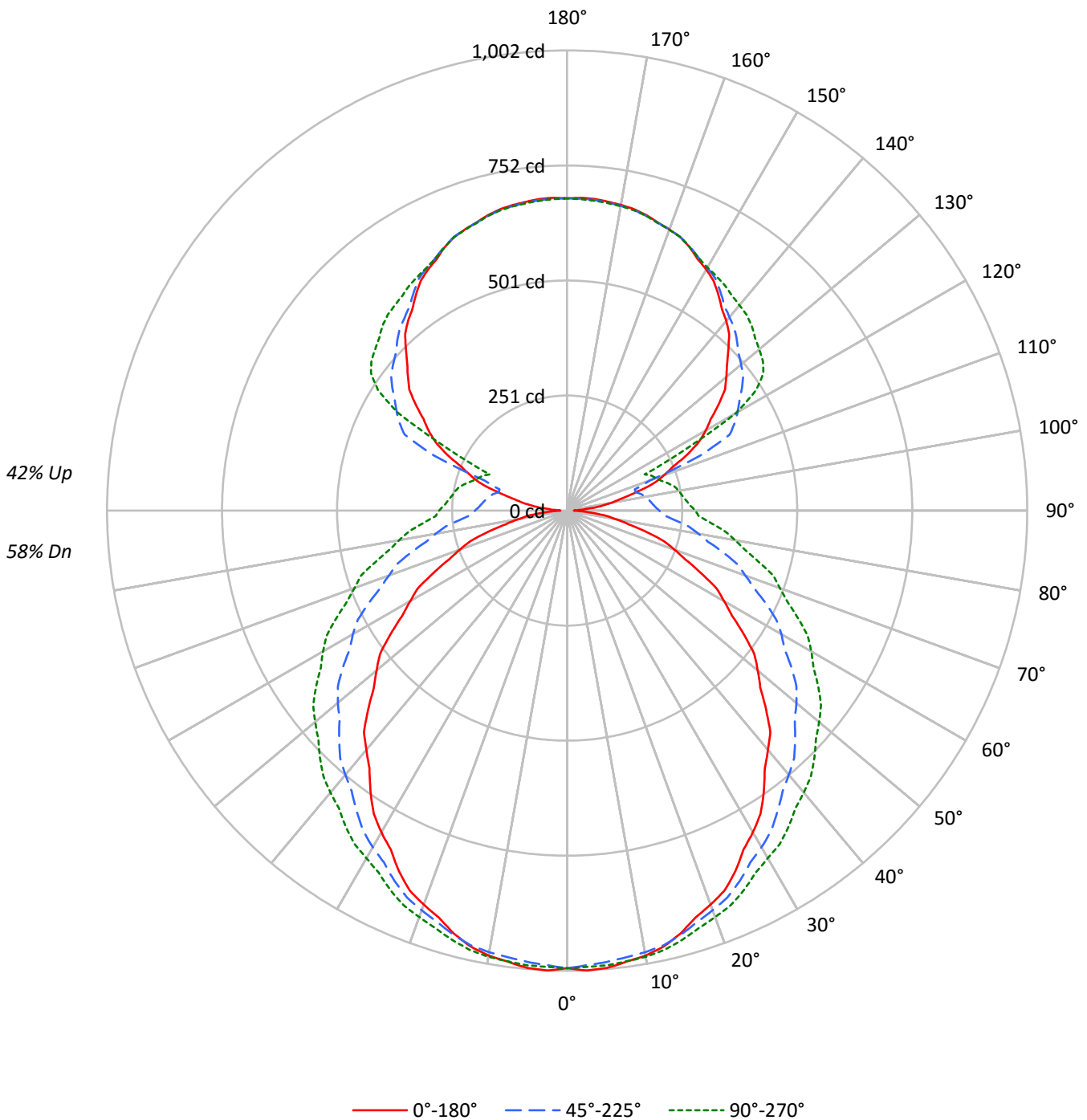
Input Watts (W): 55.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





TEST NUMBER: P331432-830

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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	102	102	102	102	88	88	88	75	75	75	64	64	64	58
1	98	93	88	84	91	86	82	79	75	71	69	64	61	59	54	52	50	46
2	88	80	73	67	82	75	68	63	64	60	55	55	51	48	46	43	41	37
3	80	70	62	55	74	65	58	52	56	51	46	48	44	40	40	37	34	30
4	73	61	53	46	68	57	50	44	50	43	39	42	38	34	36	32	29	26
5	67	55	46	39	62	51	43	37	44	38	33	38	33	29	32	28	25	22
6	62	49	40	34	57	46	38	32	40	33	29	34	29	25	29	25	22	19
7	57	44	36	30	53	41	34	28	36	30	25	31	26	22	26	22	19	17
8	53	40	32	26	49	37	30	25	33	27	22	28	23	20	24	20	17	15
9	49	36	28	23	46	34	27	22	30	24	20	26	21	18	22	18	15	13
10	46	33	26	21	43	31	24	20	28	22	18	24	19	16	21	17	14	12

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

	0°	45°	90°
0°	16091	16091	16091
5°	16172	15491	15432
10°	16069	15033	14865
15°	15848	14548	14266
20°	15567	14030	13691
25°	15292	13528	13167
30°	14902	13015	12643
35°	14508	12517	12274
40°	14092	12094	11903
45°	13700	11715	11587
50°	13277	11373	11276
55°	12834	11004	10959
60°	12292	10623	10624
65°	11728	10173	10227
70°	11096	9693	9797
75°	10286	9222	9401
80°	9006	8739	9001
85°	7780	8321	8687



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.4	1.6
10°-20°	270.8	4.7
20°-30°	410.4	7.1
30°-40°	499.9	8.6
40°-50°	537.8	9.3
50°-60°	522.2	9.0
60°-70°	456.0	7.9
70°-80°	351.0	6.1
80°-90°	237.3	4.1
90°-100°	185.0	3.2
100°-110°	201.7	3.5
110°-120°	300.6	5.2
120°-130°	410.6	7.1
130°-140°	408.5	7.0
140°-150°	365.9	6.3
150°-160°	291.6	5.0
160°-170°	187.9	3.2
170°-180°	64.7	1.1
0°-30°	775.7	13.4
0°-40°	1275.5	22.0
0°-60°	2335.5	40.3
0°-90°	3379.8	58.3
90°-120°	687.2	11.9
90°-150°	1872.2	32.3
90°-180°	2416.0	41.7
0°-180°	5796.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	997	997	997	997	997	
5°	1000	995	987	995	994	95
15°	953	956	956	968	968	268
25°	867	877	890	906	911	398
35°	747	772	799	829	841	467
45°	612	652	702	745	761	473
55°	470	523	596	647	667	420
65°	321	392	477	534	555	318
75°	178	259	351	411	432	188
85°	52	142	234	292	315	56
90°	15	105	200	258	279	11
95°	44	97	185	240	260	48
105°	157	207	154	208	228	168
115°	289	316	390	215	186	284
125°	403	412	465	506	522	360
135°	496	505	523	557	569	384
145°	574	574	582	594	599	359
155°	632	628	634	636	632	291
165°	666	663	664	668	664	188
175°	681	678	679	682	677	65
180°	680	680	680	680	680	



TEST NUMBER: P331432-830

CATALOG NUMBER: S122DIP-S1005D530U830-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6
2.5°	1002.5	1001.7	1000.9	1000.1	999.4	998.1	996.3	994.5	992.7	990.9	992.2
5°	999.6	998.6	997.7	996.6	995.7	994.3	992.4	990.4	988.5	986.6	988.5
7.5°	990.6	990.0	989.3	988.7	988.1	987.0	985.5	984.0	982.6	981.1	983.4
10°	983.7	983.1	982.4	981.8	981.1	980.3	979.4	978.4	977.4	976.5	979.0
12.5°	972.1	972.2	972.4	972.5	972.6	972.3	971.7	970.9	970.3	969.5	972.1
15°	953.4	954.0	954.6	955.3	955.9	956.2	956.2	956.2	956.2	956.2	959.1
17.5°	929.1	930.5	931.8	933.1	934.4	935.7	936.7	937.7	938.8	939.8	942.8
20°	912.9	914.5	916.2	917.8	919.4	920.8	922.1	923.3	924.6	926.0	929.4
22.5°	895.6	897.4	899.3	901.2	903.1	904.8	906.6	908.4	910.2	912.0	915.6
25°	866.7	868.9	871.2	873.5	875.7	878.3	881.1	884.0	886.9	889.8	893.6
27.5°	832.0	835.7	839.3	843.0	846.7	850.2	853.6	857.0	860.4	863.8	868.6
30°	808.9	813.0	817.3	821.4	825.6	829.8	834.0	838.1	842.3	846.5	851.6
32.5°	783.4	788.2	792.9	797.6	802.2	807.0	812.0	816.9	821.9	826.8	832.7
35°	746.8	752.2	757.7	763.2	768.6	774.4	780.5	786.6	792.7	798.8	805.9
37.5°	706.9	713.2	719.5	725.8	732.1	739.1	747.1	755.0	762.9	770.8	778.6
40°	680.3	687.4	694.5	701.5	708.6	716.4	725.1	733.8	742.4	751.1	759.5
42.5°	655.0	661.9	669.0	676.1	683.2	691.6	701.6	711.6	721.5	731.5	740.6
45°	612.5	621.1	629.8	638.5	647.1	657.0	668.4	679.6	690.8	702.0	712.0
47.5°	570.6	580.0	589.5	598.9	608.3	619.6	632.8	645.9	659.1	672.2	682.7
50°	541.7	551.7	561.6	571.6	581.5	593.7	608.1	622.5	637.0	651.5	662.4
52.5°	514.0	524.4	534.9	545.4	555.8	568.6	583.8	599.1	614.3	629.5	640.6
55°	469.5	481.0	492.6	504.2	515.7	529.8	546.5	563.2	579.9	596.5	608.1
57.5°	425.6	438.6	451.6	464.7	477.7	492.7	509.7	526.7	543.8	560.7	573.2
60°	394.4	408.1	422.0	435.7	449.6	465.6	483.9	502.2	520.5	538.8	551.0
62.5°	366.6	380.9	395.2	409.5	423.9	440.2	458.5	476.7	495.1	513.4	526.3
65°	320.7	336.4	352.1	367.9	383.6	401.0	419.9	438.8	457.7	476.6	489.8
67.5°	278.5	294.9	311.3	327.8	344.2	362.1	381.5	401.0	420.3	439.7	453.0
70°	248.5	265.1	281.8	298.5	315.2	333.5	353.5	373.3	393.2	413.1	426.9
72.5°	220.7	237.9	255.1	272.3	289.5	308.2	328.4	348.6	368.7	388.9	402.4
75°	177.7	195.7	213.6	231.6	249.6	268.8	289.4	309.9	330.5	351.0	364.8
77.5°	136.1	154.9	173.7	192.5	211.3	231.1	252.0	272.9	293.7	314.6	328.4
80°	108.3	127.9	147.5	167.1	186.6	206.9	227.7	248.6	269.5	290.3	303.8
82.5°	85.2	104.5	123.9	143.2	162.5	182.8	203.9	225.0	246.1	267.2	280.7
85°	52.0	71.9	91.8	111.7	131.6	151.8	172.4	192.9	213.5	234.0	247.5
87.5°	28.4	47.8	67.1	86.5	105.9	125.9	146.7	167.4	188.1	208.8	222.1
90°	14.9	34.8	54.6	74.4	94.3	114.8	136.3	157.7	179.1	200.5	213.9
92.5°	23.2	40.4	57.7	74.9	92.1	110.8	131.0	151.3	171.4	191.7	204.5
95°	43.5	55.0	66.4	77.9	89.4	105.2	125.3	145.2	165.2	185.3	198.0
97.5°	73.5	76.8	80.0	83.3	86.5	98.3	118.6	138.8	159.1	179.4	191.7
100°	97.2	94.1	91.0	87.8	84.7	93.1	113.0	132.8	152.7	172.5	185.2
102.5°	122.0	129.7	137.3	145.1	152.7	157.5	159.4	161.4	163.2	165.2	178.0
105°	156.7	169.4	181.9	194.5	207.1	206.8	193.7	180.5	167.4	154.2	166.6
107.5°	198.1	208.2	218.3	228.4	238.5	233.6	213.8	194.0	174.2	154.4	163.9
110°	223.7	232.4	241.1	249.9	258.5	255.0	239.1	223.3	207.4	191.5	190.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	248.8	256.3	263.7	271.2	278.6	285.9	293.0	300.2	307.4	314.4	284.8
115°	288.6	294.0	299.4	304.8	310.2	321.4	338.7	355.8	373.0	390.1	349.2
117.5°	322.7	327.1	331.5	335.8	340.3	350.1	365.2	380.5	395.8	410.9	408.2
120°	348.6	351.6	354.5	357.4	360.3	369.2	384.0	398.8	413.6	428.5	438.8
122.5°	370.7	373.0	375.1	377.4	379.7	387.9	402.1	416.3	430.6	444.7	454.2
125°	402.7	404.3	405.7	407.1	408.5	415.4	427.7	440.1	452.4	464.8	474.2
127.5°	433.2	434.4	435.7	437.0	438.2	443.7	453.6	463.4	473.3	483.1	492.2
130°	452.5	453.9	455.3	456.8	458.2	462.9	470.8	478.7	486.7	494.6	503.5
132.5°	472.1	473.3	474.5	475.6	476.8	480.6	487.0	493.4	499.8	506.2	514.7
135°	496.2	498.0	499.7	501.5	503.3	506.2	510.5	514.6	518.9	523.0	530.8
137.5°	522.2	523.3	524.4	525.7	526.8	528.7	531.1	533.7	536.2	538.8	545.7
140°	539.0	539.6	540.2	540.7	541.3	542.5	544.3	546.2	548.0	549.9	556.0
142.5°	553.3	553.7	554.2	554.6	555.1	556.1	557.6	559.1	560.6	562.1	567.1
145°	574.0	573.9	573.8	573.7	573.6	574.5	576.4	578.2	580.0	581.9	584.6
147.5°	593.4	593.0	592.6	592.2	591.7	592.5	594.3	596.2	597.9	599.8	600.6
150°	606.0	605.2	604.5	603.7	602.9	603.4	605.2	606.9	608.7	610.4	611.1
152.5°	616.6	615.8	614.9	614.1	613.2	613.6	615.3	617.0	618.6	620.3	620.9
155°	632.1	631.1	630.1	629.1	628.1	628.3	629.6	630.9	632.3	633.6	634.2
157.5°	644.1	643.4	642.5	641.7	640.8	640.9	641.8	642.7	643.7	644.6	645.3
160°	651.3	650.6	650.0	649.3	648.7	648.7	649.3	650.0	650.6	651.3	652.0
162.5°	657.5	656.9	656.2	655.5	655.0	654.9	655.4	656.0	656.6	657.1	657.9
165°	666.0	665.3	664.7	664.0	663.4	663.3	663.5	663.8	664.2	664.5	665.3
167.5°	672.3	671.7	671.0	670.3	669.7	669.5	669.8	670.1	670.4	670.7	671.5
170°	675.8	675.2	674.6	673.9	673.3	673.0	673.3	673.4	673.6	673.9	674.7
172.5°	678.3	677.6	676.9	676.3	675.6	675.3	675.6	675.8	676.0	676.3	677.0
175°	681.3	680.5	679.8	679.0	678.2	678.0	678.2	678.3	678.5	678.8	679.6
177.5°	681.7	681.2	680.5	680.0	679.3	679.0	679.1	679.2	679.3	679.4	680.0
180°	679.8	679.8	679.8	679.8	679.8	679.8	679.8	679.8	679.8	679.8	679.8



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6
2.5°	993.4	994.8	996.1	996.5	995.9	995.4	994.9	994.4
5°	990.4	992.4	994.3	995.0	994.8	994.5	994.1	993.8
7.5°	985.7	988.1	990.3	991.4	991.0	990.7	990.3	990.0
10°	981.6	984.2	986.7	987.9	987.5	987.2	986.9	986.6
12.5°	974.7	977.2	979.8	980.9	980.6	980.2	980.0	979.7
15°	962.1	964.9	967.8	969.1	968.7	968.5	968.1	967.8
17.5°	945.8	948.9	951.9	953.4	953.4	953.4	953.4	953.4
20°	932.9	936.5	940.0	941.8	941.8	941.8	941.8	941.8
22.5°	919.1	922.7	926.1	928.2	928.7	929.3	929.7	930.3
25°	897.5	901.4	905.2	907.6	908.6	909.6	910.5	911.4
27.5°	873.5	878.4	883.4	886.1	886.8	887.5	888.3	888.9
30°	856.8	861.9	867.0	870.1	871.0	871.9	873.0	873.9
32.5°	838.7	844.5	850.5	854.2	856.0	857.7	859.5	861.2
35°	812.9	820.0	827.1	831.7	834.0	836.2	838.5	840.7
37.5°	786.5	794.3	802.1	807.2	809.5	812.0	814.4	816.7
40°	767.8	776.2	784.5	790.1	793.1	795.9	798.8	801.7
42.5°	749.7	758.8	768.0	773.9	776.8	779.8	782.6	785.5
45°	721.9	731.9	741.8	748.4	751.6	754.8	758.0	761.2
47.5°	693.1	703.4	713.9	720.9	724.3	727.9	731.4	735.0
50°	673.3	684.2	695.1	702.4	705.9	709.4	712.9	716.4
52.5°	651.9	663.0	674.2	681.6	685.4	689.3	693.1	696.8
55°	619.7	631.2	642.8	650.6	654.8	659.0	663.2	667.3
57.5°	585.7	598.1	610.6	618.9	623.1	627.4	631.6	635.8
60°	563.2	575.4	587.6	596.0	600.4	604.9	609.4	613.9
62.5°	539.3	552.2	565.2	573.8	578.1	582.3	586.5	590.8
65°	503.0	516.1	529.3	538.0	542.2	546.3	550.5	554.7
67.5°	466.3	479.6	492.9	501.7	506.1	510.4	514.8	519.2
70°	440.7	454.5	468.3	477.1	481.0	484.8	488.7	492.6
72.5°	415.9	429.5	443.0	452.1	456.8	461.4	466.0	470.6
75°	378.6	392.4	406.2	415.2	419.3	423.6	427.7	431.9
77.5°	342.0	355.8	369.6	378.7	383.1	387.7	392.2	396.6
80°	317.3	330.8	344.3	353.3	357.8	362.2	366.7	371.3
82.5°	294.2	307.6	321.1	330.0	334.2	338.5	342.7	346.9
85°	261.0	274.5	287.9	296.9	301.4	305.9	310.4	314.9
87.5°	235.3	248.5	261.6	270.3	274.5	278.6	282.8	286.9
90°	227.2	240.6	254.0	262.8	266.8	270.9	275.0	279.1
92.5°	217.4	230.3	243.2	251.6	255.5	259.6	263.5	267.5
95°	210.8	223.6	236.3	244.5	248.3	252.0	255.7	259.5
97.5°	204.0	216.3	228.7	236.8	240.6	244.6	248.5	252.4
100°	198.0	210.8	223.5	231.8	235.4	239.2	243.0	246.8
102.5°	190.7	203.5	216.2	224.5	228.4	232.1	236.0	239.9
105°	179.1	191.5	204.0	212.2	216.1	220.1	224.0	228.1
107.5°	173.5	183.0	192.7	199.4	203.4	207.4	211.3	215.3
110°	190.2	189.5	188.9	190.6	194.5	198.5	202.5	206.4





TEST NUMBER: P331432-830

CATALOG NUMBER: S122DIP-S1005D530U830-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	255.2	225.6	196.0	183.2	187.1	191.0	194.8	198.7
115°	308.2	267.2	226.2	203.6	199.3	194.9	190.6	186.2
117.5°	405.5	402.7	400.0	387.4	364.8	342.1	319.6	297.0
120°	449.0	459.3	469.7	469.2	458.0	446.8	435.5	424.2
122.5°	463.7	473.3	482.8	487.7	487.8	488.0	488.0	488.2
125°	483.6	493.0	502.5	508.8	512.0	515.2	518.5	521.7
127.5°	501.2	510.3	519.3	525.4	528.3	531.1	534.0	537.0
130°	512.5	521.3	530.3	535.9	538.4	540.8	543.3	545.8
132.5°	523.1	531.6	540.1	545.5	548.0	550.4	553.0	555.4
135°	538.7	546.5	554.4	559.5	561.8	564.1	566.5	568.8
137.5°	552.7	559.7	566.7	571.1	572.9	574.7	576.5	578.2
140°	562.1	568.3	574.4	578.1	579.5	580.9	582.2	583.6
142.5°	572.1	577.1	582.1	585.2	586.4	587.5	588.5	589.7
145°	587.3	589.9	592.7	594.6	595.6	596.6	597.8	598.8
147.5°	601.4	602.3	603.1	603.7	604.0	604.3	604.6	604.9
150°	611.7	612.4	613.0	613.1	612.6	612.0	611.4	611.0
152.5°	621.6	622.3	622.9	622.8	622.2	621.4	620.7	620.0
155°	634.9	635.6	636.2	636.0	635.2	634.3	633.5	632.5
157.5°	646.0	646.8	647.5	647.5	646.6	645.7	644.9	644.0
160°	652.5	653.2	653.8	653.8	653.1	652.3	651.5	650.7
162.5°	658.6	659.4	660.2	660.1	659.1	658.2	657.2	656.3
165°	666.1	666.8	667.6	667.6	666.8	666.1	665.3	664.5
167.5°	672.2	673.1	673.8	673.7	672.7	671.8	670.7	669.8
170°	675.4	676.2	676.9	676.8	675.8	674.9	673.9	672.9
172.5°	677.8	678.5	679.3	679.2	678.3	677.2	676.3	675.2
175°	680.3	681.1	681.8	681.7	680.6	679.5	678.4	677.3
177.5°	680.6	681.3	681.8	681.7	681.0	680.1	679.4	678.6
180°	679.8	679.8	679.8	679.8	679.8	679.8	679.8	679.8

(END OF REPORT)