

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: P331976-830

Luminaire Tested: **S123DIP-S775D805U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331976-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S775D805U830-4F0-1E-UDD-D
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 805 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6071.9 lumens
Efficiency: N/A
Efficacy: 132.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: General Diffuse

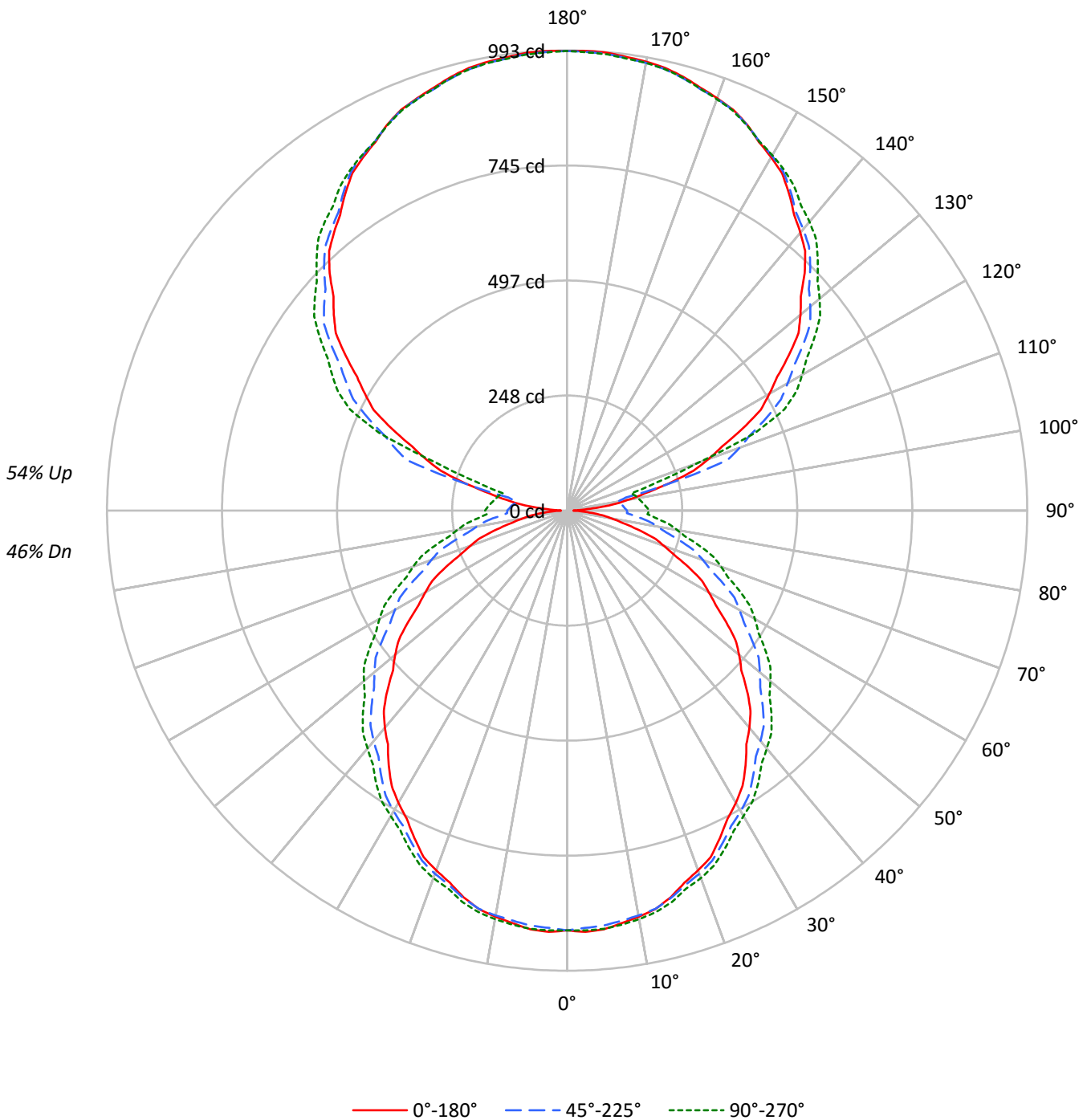
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331976-830

CATALOG NUMBER: S123DIP-S775D805U830-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P331976-830

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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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	46
1	96	91	87	83	88	84	80	77	70	67	65	57	55	53	45	44	42	37
2	87	79	73	67	79	73	67	62	60	56	53	49	46	44	39	37	35	30
3	79	69	62	55	72	64	57	51	53	48	44	43	40	36	34	32	29	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21
5	66	54	46	40	60	50	43	37	42	36	32	34	30	27	27	24	22	18
6	61	48	40	34	55	45	37	32	38	32	28	31	27	23	25	21	19	16
7	56	44	36	30	51	40	33	28	34	28	24	28	24	20	22	19	17	14
8	52	40	32	26	48	37	30	25	31	25	21	26	21	18	21	17	15	12
9	48	36	28	23	44	33	27	22	28	23	19	23	19	16	19	16	13	11
10	45	33	26	21	41	31	24	20	26	21	17	22	18	15	18	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9752	9752	9752
5°	9782	9507	9512
10°	9694	9287	9240
15°	9570	9038	8945
20°	9390	8755	8621
25°	9171	8428	8278
30°	8945	8133	7931
35°	8692	7823	7655
40°	8450	7540	7358
45°	8182	7269	7122
50°	7918	7000	6860
55°	7627	6725	6625
60°	7343	6446	6385
65°	7051	6149	6098
70°	6611	5815	5805
75°	6055	5432	5506
80°	5416	5056	5164
85°	4828	4799	4966



TEST NUMBER: P331976-830

CATALOG NUMBER: S123DIP-S775D805U830-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.9	1.4
10°-20°	244.8	4.0
20°-30°	366.2	6.0
30°-40°	437.3	7.2
40°-50°	457.5	7.5
50°-60°	429.4	7.1
60°-70°	358.6	5.9
70°-80°	256.6	4.2
80°-90°	155.8	2.6
90°-100°	132.1	2.2
100°-110°	242.4	4.0
110°-120°	459.9	7.6
120°-130°	552.6	9.1
130°-140°	573.7	9.4
140°-150°	527.8	8.7
150°-160°	423.7	7.0
160°-170°	273.4	4.5
170°-180°	94.2	1.6
0°-30°	696.9	11.5
0°-40°	1134.2	18.7
0°-60°	2021.1	33.3
0°-90°	2792.0	46.0
90°-120°	834.4	13.7
90°-150°	2488.5	41.0
90°-180°	3280.0	54.0
0°-180°	6071.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	906	906	906	906	906	
5°	907	905	899	906	906	86
15°	864	866	866	875	874	243
25°	780	789	792	805	805	359
35°	671	687	700	714	718	420
45°	549	572	597	615	624	423
55°	418	451	486	512	521	375
65°	289	328	371	400	411	286
75°	157	203	253	284	297	168
85°	48	98	150	182	193	51
90°	14	70	129	164	177	11
95°	56	67	121	155	166	64
105°	228	256	235	139	143	241
115°	417	435	475	505	517	412
125°	584	591	621	642	652	521
135°	725	729	742	761	765	558
145°	835	839	841	850	854	522
155°	919	918	918	921	917	423
165°	969	967	966	971	967	274
175°	992	988	989	993	988	94
180°	992	992	992	992	992	



TEST NUMBER: P331976-830

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0
2.5°	909.9	909.4	908.9	908.3	907.9	906.8	905.5	904.1	902.7	901.3	902.7
5°	907.0	906.5	906.1	905.7	905.2	904.4	903.1	901.7	900.4	899.1	900.9
7.5°	898.1	898.1	898.2	898.3	898.4	897.9	896.5	895.3	894.0	892.8	894.9
10°	890.2	890.6	891.1	891.6	891.9	891.6	890.5	889.5	888.3	887.2	889.5
12.5°	880.7	881.4	881.9	882.6	883.2	883.2	882.4	881.7	880.9	880.1	882.1
15°	863.6	864.2	864.9	865.5	866.2	866.4	866.2	866.0	865.7	865.5	867.7
17.5°	841.9	843.2	844.5	845.7	847.1	847.7	847.6	847.5	847.4	847.3	849.3
20°	826.0	827.4	828.7	830.0	831.3	832.2	832.6	833.1	833.5	834.0	835.9
22.5°	809.5	810.8	812.1	813.4	814.7	815.7	816.3	816.9	817.6	818.1	820.7
25°	779.7	781.8	784.0	786.3	788.4	789.9	790.5	791.2	791.8	792.5	795.3
27.5°	749.7	752.1	754.7	757.1	759.7	761.6	763.0	764.4	765.8	767.2	769.7
30°	728.3	731.2	734.1	736.9	739.7	742.1	743.8	745.6	747.3	749.0	751.7
32.5°	704.6	707.8	711.1	714.3	717.5	720.2	722.5	724.8	727.1	729.3	732.2
35°	671.1	674.6	678.2	681.6	685.1	688.3	691.2	694.0	696.9	699.7	703.0
37.5°	635.6	639.5	643.5	647.4	651.4	655.1	658.6	662.1	665.6	669.1	672.9
40°	611.9	615.9	619.8	623.8	627.6	631.9	636.2	640.6	645.0	649.4	653.1
42.5°	585.8	590.7	595.5	600.3	605.1	609.8	614.3	619.0	623.5	628.1	632.2
45°	548.7	554.0	559.2	564.5	569.8	575.1	580.6	586.1	591.6	597.1	601.2
47.5°	509.8	515.9	521.8	527.7	533.7	539.8	546.1	552.3	558.6	564.9	569.6
50°	484.6	490.7	496.8	503.0	509.2	515.6	522.5	529.2	536.0	542.8	547.8
52.5°	457.7	464.2	470.7	477.2	483.7	490.7	498.2	505.7	513.2	520.7	525.9
55°	418.5	425.7	432.9	440.2	447.4	455.0	462.9	470.8	478.6	486.5	492.5
57.5°	380.1	387.7	395.2	402.7	410.4	418.4	427.1	435.7	444.3	453.0	458.9
60°	353.4	361.2	369.1	377.0	384.9	393.3	402.4	411.3	420.3	429.3	435.5
62.5°	328.0	336.1	344.2	352.2	360.3	369.1	378.6	388.1	397.7	407.2	413.3
65°	289.2	297.7	306.2	314.8	323.4	332.4	342.1	351.8	361.5	371.1	377.7
67.5°	249.7	258.7	267.9	276.9	286.0	295.5	305.3	315.1	324.9	334.8	342.0
70°	222.1	231.5	240.9	250.3	259.8	269.8	280.3	290.8	301.3	311.9	318.9
72.5°	196.8	206.2	215.7	225.1	234.5	244.7	255.5	266.5	277.3	288.1	295.4
75°	156.9	167.2	177.6	187.8	198.1	208.8	219.7	230.7	241.7	252.7	259.9
77.5°	122.2	132.6	143.0	153.4	163.7	174.5	185.6	196.6	207.6	218.7	226.3
80°	97.7	108.5	119.2	130.0	140.7	151.7	163.2	174.6	186.0	197.4	204.8
82.5°	76.3	87.3	98.2	109.1	120.1	131.3	142.9	154.5	166.1	177.7	185.1
85°	48.4	59.3	70.3	81.2	92.2	103.5	115.2	126.8	138.4	150.1	157.5
87.5°	26.4	37.6	48.9	60.1	71.4	82.8	94.4	106.0	117.6	129.3	136.9
90°	13.6	25.9	38.4	50.7	63.1	76.0	89.3	102.5	115.9	129.2	137.3
92.5°	25.7	35.0	44.2	53.4	62.7	73.6	86.2	98.9	111.4	124.0	132.4
95°	55.8	57.7	59.5	61.4	63.2	70.3	82.9	95.5	108.0	120.6	128.5
97.5°	100.0	104.7	109.4	114.1	118.9	120.5	118.9	117.3	115.8	114.3	122.2
100°	133.4	143.7	154.0	164.3	174.6	172.0	156.6	141.1	125.6	110.2	117.8
102.5°	171.5	180.2	188.9	197.6	206.2	201.6	183.6	165.6	147.6	129.6	131.8
105°	227.5	234.5	241.6	248.6	255.7	256.7	251.3	246.0	240.7	235.4	212.5
107.5°	285.6	291.4	297.4	303.3	309.2	317.8	329.0	340.4	351.7	362.9	347.5
110°	324.2	329.5	334.8	340.1	345.3	353.2	363.7	374.4	384.9	395.5	395.8



TEST NUMBER: P331976-830

CATALOG NUMBER: S123DIP-S775D805U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	361.9	366.4	370.8	375.2	379.7	387.0	397.2	407.5	417.6	427.9	433.5
115°	416.9	420.5	424.0	427.7	431.3	437.8	447.1	456.6	465.9	475.2	482.2
117.5°	470.7	473.5	476.4	479.3	482.1	487.6	495.8	503.9	512.1	520.3	526.8
120°	503.5	506.1	508.7	511.2	513.9	519.0	526.7	534.4	542.2	549.9	556.3
122.5°	537.7	539.5	541.3	543.1	544.9	549.5	557.0	564.5	572.0	579.6	585.3
125°	583.6	584.9	586.3	587.6	588.9	593.0	600.0	607.1	614.1	621.0	626.0
127.5°	629.1	630.1	631.2	632.3	633.4	637.0	643.0	649.0	655.1	661.1	666.0
130°	657.3	658.4	659.5	660.5	661.7	664.8	669.8	674.9	679.9	684.9	689.8
132.5°	683.6	684.9	686.2	687.4	688.7	691.4	695.4	699.4	703.4	707.5	712.1
135°	724.8	725.6	726.4	727.2	727.9	729.8	732.9	735.9	739.0	742.1	746.5
137.5°	760.1	761.1	762.1	763.3	764.3	765.7	767.4	769.1	770.8	772.6	776.8
140°	782.8	783.8	784.8	785.8	786.7	787.8	789.0	790.1	791.3	792.4	796.4
142.5°	804.6	805.4	806.3	807.0	807.9	808.6	809.2	809.8	810.4	811.1	814.5
145°	835.1	836.0	837.0	837.9	838.9	839.4	839.8	840.1	840.5	840.7	842.8
147.5°	862.9	863.7	864.4	865.2	865.9	866.5	866.8	867.0	867.4	867.7	868.6
150°	880.5	881.1	881.6	882.0	882.5	883.0	883.3	883.6	883.9	884.3	884.6
152.5°	896.5	896.7	896.9	897.2	897.4	897.6	897.8	898.0	898.2	898.4	899.0
155°	918.9	918.6	918.2	917.9	917.6	917.5	917.7	917.8	917.9	918.1	919.0
157.5°	936.2	936.2	936.2	936.1	936.1	936.0	935.9	935.8	935.6	935.4	936.4
160°	946.9	946.7	946.6	946.4	946.2	946.0	945.9	945.7	945.6	945.4	946.4
162.5°	956.9	956.5	956.0	955.6	955.2	954.9	954.7	954.6	954.4	954.2	955.4
165°	969.0	968.5	968.0	967.5	967.0	966.7	966.6	966.4	966.2	966.0	967.3
167.5°	978.5	977.8	977.1	976.5	975.8	975.4	975.4	975.4	975.4	975.4	976.8
170°	983.7	983.1	982.4	981.8	981.1	980.8	980.8	980.8	980.8	980.8	982.1
172.5°	987.2	986.5	985.7	984.9	984.1	983.8	983.9	984.0	984.2	984.3	985.6
175°	991.8	991.0	990.2	989.4	988.5	988.3	988.4	988.5	988.7	988.9	990.0
177.5°	993.0	992.4	991.7	991.1	990.4	990.1	990.2	990.4	990.5	990.6	991.7
180°	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8



TEST NUMBER: P331976-830

CATALOG NUMBER: S123DIP-S775D805U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0
2.5°	904.1	905.5	906.8	907.5	907.3	907.1	906.9	906.8
5°	902.6	904.4	906.1	906.8	906.6	906.4	906.3	906.0
7.5°	897.1	899.4	901.5	902.5	902.2	902.0	901.7	901.4
10°	891.6	893.8	896.0	896.9	896.5	896.0	895.6	895.1
12.5°	884.2	886.2	888.2	889.0	888.5	888.2	887.7	887.2
15°	869.9	872.1	874.3	875.2	875.1	874.9	874.6	874.4
17.5°	851.3	853.3	855.3	856.1	855.8	855.5	855.2	854.9
20°	837.9	839.9	841.9	842.9	843.2	843.4	843.6	843.9
22.5°	823.1	825.7	828.1	829.3	829.2	829.1	829.0	828.8
25°	798.2	801.1	803.9	805.3	805.3	805.3	805.3	805.3
27.5°	772.1	774.6	777.0	778.4	778.5	778.7	778.9	779.1
30°	754.3	757.0	759.6	760.9	760.9	760.9	760.9	760.9
32.5°	734.9	737.7	740.6	742.3	742.7	743.3	743.8	744.3
35°	706.3	709.6	712.8	715.0	715.9	716.7	717.6	718.5
37.5°	676.6	680.3	684.0	686.3	686.9	687.7	688.3	689.1
40°	656.9	660.5	664.3	666.6	667.5	668.4	669.2	670.1
42.5°	636.2	640.3	644.4	647.1	648.3	649.5	650.7	652.0
45°	605.4	609.5	613.8	616.7	618.5	620.2	622.0	623.8
47.5°	574.3	579.0	583.7	586.7	588.1	589.5	590.8	592.1
50°	552.9	557.9	563.0	566.3	567.8	569.3	570.9	572.4
52.5°	531.1	536.4	541.6	545.2	547.1	548.9	550.8	552.7
55°	498.4	504.4	510.2	514.1	515.9	517.6	519.3	521.1
57.5°	465.0	470.9	476.8	480.9	483.0	485.0	487.0	489.1
60°	441.6	447.7	453.8	458.2	460.5	463.0	465.4	467.8
62.5°	419.5	425.7	431.8	435.9	438.2	440.5	442.7	444.9
65°	384.3	390.8	397.4	401.8	404.0	406.1	408.4	410.6
67.5°	349.1	356.4	363.5	368.1	369.9	371.7	373.6	375.4
70°	325.9	332.9	340.0	344.5	346.8	348.9	351.1	353.4
72.5°	302.6	309.7	317.0	321.7	323.9	326.0	328.2	330.5
75°	267.1	274.4	281.6	286.5	289.2	291.8	294.5	297.1
77.5°	233.9	241.6	249.2	254.0	256.1	258.1	260.1	262.1
80°	212.3	219.7	227.2	232.1	234.2	236.4	238.7	240.8
82.5°	192.6	200.0	207.5	212.3	214.5	216.7	218.9	221.0
85°	164.9	172.4	179.8	184.6	186.8	189.1	191.2	193.4
87.5°	144.5	152.0	159.7	164.6	166.8	169.1	171.4	173.6
90°	145.4	153.5	161.6	166.9	169.5	172.0	174.6	177.0
92.5°	140.7	149.0	157.4	162.7	164.9	167.1	169.3	171.5
95°	136.5	144.4	152.3	157.4	159.6	161.7	164.0	166.2
97.5°	130.0	137.9	145.7	150.8	153.2	155.5	157.9	160.2
100°	125.5	133.2	140.8	145.9	148.3	150.6	153.0	155.3
102.5°	133.8	136.0	138.1	140.4	142.9	145.4	147.9	150.3
105°	189.7	166.8	144.0	133.7	136.0	138.4	140.6	143.0
107.5°	332.2	316.8	301.4	283.7	263.8	243.9	223.9	204.1
110°	396.1	396.4	396.7	386.0	364.4	342.7	321.0	299.4



TEST NUMBER: P331976-830

CATALOG NUMBER: S123DIP-S775D805U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	439.1	444.8	450.4	451.7	448.7	445.6	442.6	439.6
115°	489.1	496.0	502.8	507.6	509.9	512.4	514.7	517.2
117.5°	533.3	539.8	546.4	550.5	552.4	554.2	556.1	557.9
120°	562.6	568.9	575.3	579.3	580.8	582.3	583.9	585.4
122.5°	591.2	596.9	602.7	606.4	608.1	609.7	611.4	613.1
125°	630.9	635.8	640.8	644.2	646.1	647.9	649.8	651.7
127.5°	670.9	675.7	680.6	683.6	684.8	686.0	687.1	688.2
130°	694.6	699.4	704.2	707.1	708.0	709.1	710.0	711.1
132.5°	716.8	721.4	726.0	728.9	729.9	730.9	732.0	733.0
135°	750.9	755.4	759.9	762.3	763.0	763.6	764.2	764.8
137.5°	781.1	785.3	789.6	792.1	792.9	793.6	794.4	795.1
140°	800.3	804.3	808.1	810.5	811.3	812.1	812.8	813.6
142.5°	817.9	821.4	824.9	827.0	827.6	828.2	828.9	829.5
145°	844.9	847.1	849.1	850.6	851.5	852.3	853.2	854.1
147.5°	869.5	870.3	871.2	871.6	871.7	871.7	871.8	871.8
150°	884.9	885.2	885.5	885.7	885.6	885.6	885.5	885.5
152.5°	899.6	900.1	900.8	900.7	900.0	899.4	898.7	898.1
155°	919.8	920.6	921.4	921.3	920.4	919.4	918.4	917.4
157.5°	937.4	938.3	939.3	939.1	937.9	936.6	935.4	934.1
160°	947.3	948.4	949.3	949.2	948.1	947.0	945.8	944.7
162.5°	956.5	957.6	958.7	958.8	957.7	956.7	955.7	954.7
165°	968.7	970.0	971.3	971.4	970.3	969.0	967.9	966.8
167.5°	978.1	979.4	980.7	980.7	979.4	978.1	976.8	975.4
170°	983.4	984.7	986.0	986.0	984.7	983.4	982.1	980.8
172.5°	986.9	988.3	989.6	989.5	988.1	986.7	985.1	983.7
175°	991.2	992.3	993.4	993.3	992.1	990.8	989.5	988.2
177.5°	992.8	993.8	994.9	994.8	993.4	992.1	990.8	989.5
180°	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8

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