

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: P332673-927

Luminaire Tested: **S124DIP-S1195D365U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332673-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S1195D365U927-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1195 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5009.7 lumens
Efficiency: N/A
Efficacy: 100.6 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: Semi-Direct

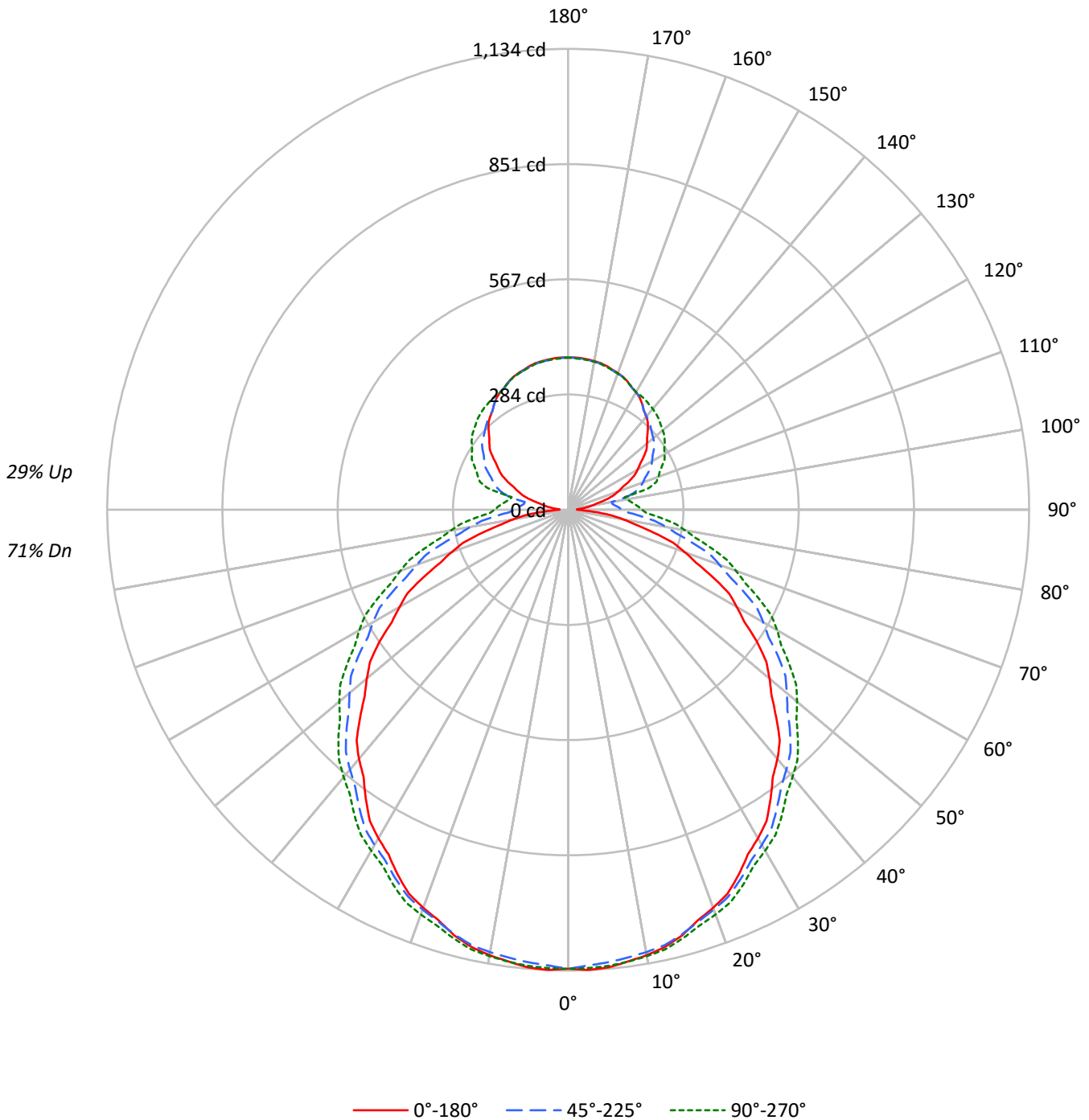
Input Watts (W): 49.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P332673-927

CATALOG NUMBER: S124DIP-S1195D365U927-4F0-1E-UDD-D

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	112	112	112	112	106	106	106	106	95	95	95		85	85	85		75	75	75	71
1	101	96	91	87	95	91	87	83	81	78	75		73	70	68		64	63	61	57
2	91	83	76	70	86	79	72	67	70	65	61		63	59	56		56	53	50	46
3	83	73	64	58	78	69	61	55	62	56	51		55	50	46		49	45	42	39
4	76	64	55	49	71	61	53	47	55	48	43		49	44	39		44	39	36	33
5	70	57	48	41	65	54	46	40	49	42	37		44	38	34		39	35	31	28
6	64	51	42	36	60	49	40	35	44	37	32		39	34	30		35	31	27	24
7	59	46	37	31	56	44	36	30	40	33	28		36	30	26		32	28	24	22
8	55	42	34	28	52	40	32	27	36	30	25		33	27	23		30	25	21	19
9	51	38	30	25	48	37	29	24	33	27	22		30	25	21		27	23	19	17
10	48	35	27	22	45	34	26	22	31	24	20		28	23	19		25	21	17	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9120	9120	9120
5°	9147	8912	8938
10°	9092	8767	8760
15°	9010	8598	8551
20°	8888	8412	8347
25°	8749	8203	8124
30°	8599	7995	7894
35°	8429	7783	7692
40°	8293	7580	7482
45°	8093	7394	7302
50°	7922	7178	7111
55°	7746	6976	6888
60°	7471	6718	6685
65°	7170	6440	6434
70°	6805	6123	6141
75°	6298	5775	5878
80°	5734	5442	5618
85°	5012	5144	5468



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.0	2.1
10°-20°	306.5	6.1
20°-30°	463.4	9.3
30°-40°	560.7	11.2
40°-50°	592.8	11.8
50°-60°	557.9	11.1
60°-70°	462.9	9.2
70°-80°	325.1	6.5
80°-90°	184.9	3.7
90°-100°	121.9	2.4
100°-110°	162.4	3.2
110°-120°	210.4	4.2
120°-130°	228.8	4.6
130°-140°	225.3	4.5
140°-150°	201.0	4.0
150°-160°	160.0	3.2
160°-170°	103.2	2.1
170°-180°	35.6	0.7
0°-30°	876.9	17.5
0°-40°	1437.6	28.7
0°-60°	2588.3	51.7
0°-90°	3561.1	71.1
90°-120°	494.7	9.9
90°-150°	1149.9	23.0
90°-180°	1449.0	28.9
0°-180°	5009.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1130	1130	1130	1130	1130	
5°	1131	1127	1118	1128	1127	107
15°	1084	1085	1082	1092	1092	305
25°	992	999	1003	1016	1018	457
35°	868	883	896	912	917	543
45°	724	748	772	792	800	559
55°	567	594	631	656	664	505
65°	392	433	476	506	517	389
75°	218	265	318	352	364	231
85°	67	120	177	214	228	71
90°	21	75	131	168	180	14
95°	32	65	116	151	164	33
105°	96	124	171	203	205	101
115°	165	179	217	245	255	163
125°	226	228	257	281	290	202
135°	277	277	287	307	316	214
145°	318	317	317	325	331	199
155°	347	347	346	347	347	160
165°	366	365	364	366	364	103
175°	374	373	373	375	372	36
180°	374	374	374	374	374	



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CATALOG NUMBER: S124DIP-S1195D365U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7
2.5°	1133.7	1133.0	1132.3	1131.6	1131.0	1129.7	1127.9	1126.2	1124.3	1122.5	1124.1
5°	1130.8	1130.0	1129.2	1128.4	1127.5	1126.1	1124.1	1122.1	1120.2	1118.2	1120.5
7.5°	1121.3	1120.8	1120.2	1119.7	1119.3	1118.2	1116.6	1114.9	1113.3	1111.7	1114.2
10°	1113.2	1112.9	1112.6	1112.3	1112.1	1111.2	1109.8	1108.4	1107.0	1105.6	1108.1
12.5°	1102.0	1102.0	1101.9	1101.8	1101.8	1101.3	1100.3	1099.4	1098.4	1097.5	1099.8
15°	1084.1	1084.3	1084.7	1084.9	1085.2	1084.9	1084.1	1083.2	1082.4	1081.6	1084.1
17.5°	1059.5	1060.4	1061.2	1062.1	1062.9	1063.3	1063.1	1062.9	1062.7	1062.6	1065.2
20°	1042.4	1043.1	1044.0	1044.9	1045.7	1046.2	1046.6	1046.9	1047.1	1047.4	1050.2
22.5°	1023.1	1024.1	1025.2	1026.3	1027.4	1028.2	1028.6	1029.2	1029.7	1030.2	1033.0
25°	991.7	993.4	995.1	996.8	998.5	999.7	1000.6	1001.4	1002.3	1003.1	1006.2
27.5°	956.8	959.3	961.8	964.2	966.7	968.6	969.9	971.2	972.5	973.8	976.6
30°	933.5	935.8	938.0	940.3	942.5	944.7	946.6	948.6	950.5	952.5	955.6
32.5°	908.2	910.9	913.6	916.3	919.0	921.5	923.7	925.9	928.0	930.3	933.8
35°	867.8	871.2	874.5	877.9	881.2	884.3	887.2	889.9	892.8	895.6	899.5
37.5°	827.0	830.9	834.8	838.7	842.6	846.2	849.7	853.2	856.7	860.2	864.2
40°	800.7	804.4	808.0	811.7	815.3	819.1	823.1	827.0	830.9	834.9	839.1
42.5°	770.4	774.4	778.6	782.7	786.8	791.2	795.7	800.3	804.9	809.6	814.3
45°	723.6	728.9	734.3	739.6	744.9	750.3	755.6	761.0	766.3	771.7	776.4
47.5°	678.7	684.3	689.8	695.3	700.8	706.7	712.9	719.1	725.2	731.4	736.3
50°	646.4	652.6	658.8	665.0	671.1	677.3	683.5	689.7	695.9	702.0	707.7
52.5°	614.0	620.2	626.4	632.6	638.7	645.4	652.4	659.6	666.6	673.8	679.4
55°	566.7	572.6	578.5	584.4	590.3	597.5	605.9	614.3	622.8	631.2	636.8
57.5°	513.8	521.2	528.5	535.8	543.0	550.9	559.3	567.7	576.1	584.4	591.1
60°	479.4	486.7	494.0	501.4	508.7	517.0	526.2	535.5	544.8	554.1	560.5
62.5°	446.0	454.0	462.0	470.0	477.9	486.6	495.9	505.2	514.4	523.7	530.1
65°	392.1	401.2	410.1	419.1	428.1	437.4	446.9	456.5	466.0	475.6	482.7
67.5°	340.2	349.8	359.4	368.9	378.5	388.4	398.6	408.8	419.1	429.4	436.5
70°	304.8	314.4	324.0	333.5	343.1	353.2	363.8	374.5	385.2	395.9	403.5
72.5°	270.5	280.2	290.0	299.8	309.6	320.1	331.5	342.9	354.2	365.6	373.0
75°	217.6	228.0	238.4	248.7	259.2	270.3	282.1	293.9	305.7	317.5	325.3
77.5°	168.3	179.3	190.3	201.3	212.3	224.0	236.4	248.7	261.1	273.5	281.5
80°	137.9	149.1	160.3	171.6	182.8	194.6	207.0	219.4	231.8	244.2	252.5
82.5°	107.5	119.2	130.9	142.6	154.3	166.4	178.7	191.1	203.4	215.8	224.4
85°	67.0	78.8	90.6	102.4	114.2	126.5	139.1	151.8	164.5	177.1	185.5
87.5°	37.6	49.2	60.8	72.4	84.1	96.0	108.4	120.9	133.2	145.7	153.9
90°	21.1	33.0	44.9	56.9	68.8	81.0	93.6	106.2	118.8	131.4	139.9
92.5°	22.7	32.9	43.1	53.2	63.4	74.8	87.4	99.9	112.5	125.1	133.4
95°	31.8	39.0	46.2	53.3	60.5	69.9	81.4	93.0	104.6	116.2	124.1
97.5°	47.6	57.0	66.2	75.5	84.8	91.7	96.2	100.7	105.1	109.6	117.0
100°	59.8	68.3	76.7	85.1	93.6	98.9	101.3	103.7	106.1	108.4	115.0
102.5°	74.6	81.8	89.0	96.3	103.5	111.9	121.6	131.2	140.9	150.4	146.4
105°	95.6	101.6	107.7	113.7	119.6	128.0	138.7	149.4	160.1	170.9	178.4
107.5°	117.3	122.1	126.9	131.7	136.5	144.0	154.2	164.5	174.8	185.1	192.3
110°	131.0	135.2	139.3	143.5	147.6	154.7	164.9	175.2	185.4	195.6	202.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	144.4	148.2	152.0	155.8	159.7	166.4	175.9	185.5	195.0	204.6	210.8
115°	164.9	167.6	170.4	173.1	175.8	181.6	190.5	199.5	208.4	217.4	223.6
117.5°	184.6	186.3	188.1	189.9	191.6	196.8	205.3	213.8	222.3	230.8	236.6
120°	197.0	198.0	199.2	200.3	201.4	206.0	214.0	222.1	230.2	238.3	244.1
122.5°	209.5	209.8	210.2	210.5	210.8	214.8	222.6	230.4	238.2	246.0	251.7
125°	226.2	226.2	226.2	226.2	226.1	229.6	236.5	243.4	250.3	257.1	262.7
127.5°	243.0	242.8	242.6	242.3	242.1	244.9	250.6	256.2	261.9	267.6	272.6
130°	252.9	252.8	252.5	252.3	252.1	254.3	259.0	263.7	268.4	273.1	278.2
132.5°	263.1	262.8	262.7	262.5	262.4	264.2	268.1	271.9	275.7	279.6	284.5
135°	276.9	276.9	276.8	276.7	276.6	277.7	280.0	282.2	284.4	286.6	291.2
137.5°	290.3	290.0	289.8	289.5	289.2	289.8	291.0	292.2	293.4	294.7	298.9
140°	299.0	298.9	298.7	298.6	298.4	298.5	298.9	299.3	299.8	300.2	304.0
142.5°	305.9	306.0	306.2	306.3	306.5	306.6	306.5	306.3	306.3	306.2	309.5
145°	317.7	317.5	317.4	317.3	317.3	317.2	317.2	317.2	317.2	317.2	318.9
147.5°	327.2	327.3	327.3	327.4	327.5	327.5	327.4	327.3	327.3	327.3	327.5
150°	334.1	334.1	334.1	334.1	334.0	334.0	333.9	333.8	333.7	333.7	333.7
152.5°	339.0	339.1	339.2	339.4	339.5	339.5	339.5	339.3	339.2	339.1	339.2
155°	346.9	347.0	347.0	347.1	347.1	347.1	346.9	346.7	346.5	346.3	346.6
157.5°	353.8	353.7	353.7	353.6	353.6	353.5	353.3	353.1	352.8	352.7	353.0
160°	357.8	357.6	357.4	357.3	357.0	357.0	356.9	356.8	356.7	356.6	357.0
162.5°	361.4	361.2	360.9	360.7	360.4	360.3	360.2	360.1	360.1	360.0	360.4
165°	365.9	365.6	365.3	365.0	364.6	364.5	364.5	364.5	364.5	364.5	365.0
167.5°	369.5	369.2	368.8	368.5	368.2	368.0	368.0	368.0	367.9	367.9	368.4
170°	371.5	371.1	370.7	370.4	370.0	369.9	369.9	370.0	370.0	370.1	370.6
172.5°	372.9	372.5	372.1	371.8	371.4	371.2	371.3	371.4	371.4	371.5	371.9
175°	374.3	373.9	373.6	373.2	372.8	372.6	372.7	372.8	372.9	372.9	373.5
177.5°	375.0	374.6	374.3	373.9	373.6	373.4	373.6	373.7	373.8	373.8	374.3
180°	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7
2.5°	1125.7	1127.3	1128.9	1129.5	1129.3	1129.0	1128.9	1128.6
5°	1122.8	1125.0	1127.2	1128.2	1127.9	1127.7	1127.4	1127.1
7.5°	1116.7	1119.3	1121.8	1122.9	1122.6	1122.4	1122.0	1121.8
10°	1110.6	1113.2	1115.7	1116.8	1116.6	1116.3	1115.9	1115.7
12.5°	1102.1	1104.4	1106.7	1107.9	1107.8	1107.7	1107.6	1107.6
15°	1086.6	1089.2	1091.6	1092.8	1092.5	1092.3	1091.9	1091.6
17.5°	1067.8	1070.3	1072.9	1074.1	1073.9	1073.6	1073.4	1073.2
20°	1053.0	1055.8	1058.7	1060.0	1060.0	1060.0	1060.0	1060.0
22.5°	1035.8	1038.6	1041.4	1043.1	1043.5	1043.9	1044.4	1044.9
25°	1009.3	1012.4	1015.5	1017.2	1017.5	1017.7	1018.0	1018.3
27.5°	979.5	982.4	985.2	986.8	987.2	987.5	987.9	988.2
30°	958.7	961.8	964.9	966.7	967.3	967.8	968.4	969.0
32.5°	937.3	940.9	944.4	946.5	947.1	947.6	948.2	948.7
35°	903.5	907.4	911.3	913.7	914.6	915.4	916.2	917.1
37.5°	868.2	872.1	876.2	878.6	879.5	880.4	881.3	882.2
40°	843.3	847.6	851.8	854.4	855.6	856.7	857.8	858.9
42.5°	818.9	823.6	828.2	831.0	831.9	832.8	833.7	834.6
45°	781.2	786.0	790.8	793.8	795.3	796.6	798.0	799.5
47.5°	741.3	746.2	751.2	754.5	756.2	757.9	759.5	761.3
50°	713.3	718.9	724.5	728.2	729.9	731.6	733.2	734.9
52.5°	685.0	690.6	696.2	699.9	701.6	703.2	704.9	706.6
55°	642.5	648.1	653.7	657.4	659.0	660.8	662.4	664.1
57.5°	597.8	604.5	611.2	615.3	616.9	618.5	620.0	621.6
60°	567.0	573.5	579.9	584.2	586.5	588.7	591.0	593.3
62.5°	536.6	543.1	549.5	553.9	556.2	558.4	560.6	562.9
65°	489.6	496.7	503.7	508.3	510.6	512.9	515.2	517.4
67.5°	443.6	450.8	457.9	462.6	464.8	466.9	469.1	471.3
70°	411.1	418.7	426.3	431.1	433.0	435.0	437.0	438.9
72.5°	380.3	387.7	395.1	399.8	402.0	404.2	406.4	408.6
75°	333.3	341.1	349.0	354.2	356.7	359.3	361.8	364.3
77.5°	289.5	297.5	305.4	310.8	313.5	316.2	318.9	321.5
80°	261.0	269.4	277.9	283.2	285.4	287.7	289.9	292.2
82.5°	233.1	241.8	250.4	256.0	258.5	260.9	263.4	265.9
85°	193.9	202.4	210.8	216.4	219.3	222.0	224.9	227.7
87.5°	162.2	170.4	178.6	183.9	186.5	188.9	191.5	193.9
90°	148.5	156.9	165.5	171.0	173.3	175.7	178.1	180.5
92.5°	141.7	150.0	158.3	163.6	165.9	168.1	170.4	172.7
95°	132.1	140.1	148.1	153.4	155.9	158.5	161.1	163.7
97.5°	124.4	131.8	139.2	144.2	146.6	149.1	151.6	154.1
100°	121.5	128.0	134.6	138.9	140.9	142.9	145.0	146.9
102.5°	142.4	138.3	134.3	133.3	135.5	137.8	140.0	142.1
105°	186.0	193.6	201.2	205.0	205.0	205.0	205.0	205.0
107.5°	199.5	206.6	213.8	218.6	220.8	223.1	225.3	227.6
110°	208.7	215.3	221.9	226.4	228.9	231.3	233.8	236.1



TEST NUMBER: P332673-927

CATALOG NUMBER: S124DIP-S1195D365U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	217.1	223.2	229.5	233.9	236.3	238.8	241.3	243.8
115°	230.0	236.3	242.6	246.8	248.7	250.6	252.6	254.6
117.5°	242.5	248.3	254.1	258.1	260.4	262.6	264.8	267.0
120°	249.8	255.6	261.3	265.2	267.4	269.5	271.6	273.7
122.5°	257.4	263.1	268.8	272.6	274.5	276.4	278.3	280.2
125°	268.2	273.7	279.2	282.9	284.6	286.4	288.1	289.9
127.5°	277.7	282.7	287.7	291.1	292.9	294.9	296.7	298.6
130°	283.3	288.4	293.6	297.0	298.7	300.3	302.0	303.7
132.5°	289.3	294.2	299.1	302.4	304.0	305.7	307.3	309.0
135°	295.8	300.5	305.1	308.3	310.1	311.9	313.7	315.5
137.5°	303.2	307.4	311.6	314.4	315.8	317.2	318.5	319.9
140°	307.8	311.6	315.5	318.1	319.6	321.1	322.6	324.0
142.5°	312.8	316.2	319.6	321.8	323.0	324.2	325.3	326.6
145°	320.7	322.4	324.2	325.7	326.9	328.2	329.5	330.7
147.5°	327.8	328.0	328.4	328.9	329.9	330.9	331.8	332.8
150°	333.7	333.7	333.7	333.7	333.8	333.9	333.9	334.0
152.5°	339.3	339.4	339.5	339.5	339.5	339.5	339.5	339.4
155°	346.8	347.1	347.3	347.4	347.1	347.0	346.8	346.6
157.5°	353.3	353.6	353.9	353.9	353.6	353.3	353.0	352.7
160°	357.4	357.8	358.1	358.1	357.8	357.4	357.0	356.6
162.5°	360.8	361.2	361.6	361.5	361.1	360.7	360.2	359.8
165°	365.5	366.0	366.5	366.5	365.9	365.4	364.8	364.2
167.5°	369.0	369.6	370.0	370.0	369.4	368.8	368.1	367.6
170°	371.1	371.6	372.1	372.0	371.5	370.8	370.2	369.6
172.5°	372.5	373.0	373.4	373.4	372.7	372.0	371.4	370.7
175°	374.1	374.6	375.2	375.1	374.3	373.6	372.8	372.1
177.5°	374.7	375.1	375.5	375.3	374.8	374.1	373.6	373.0
180°	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3

(END OF REPORT)