

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: P332910-840

Luminaire Tested: **S124RDIP-S575D810U840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

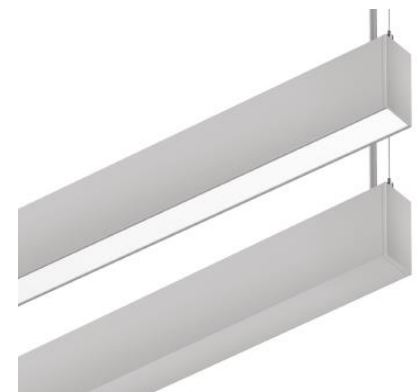
Test Information

Test Method: LM-79-08
Report Number: P332910-840
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: S124RDIP-S575D810U840-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 810 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5639.8 lumens
Efficiency: N/A
Efficacy: 146.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

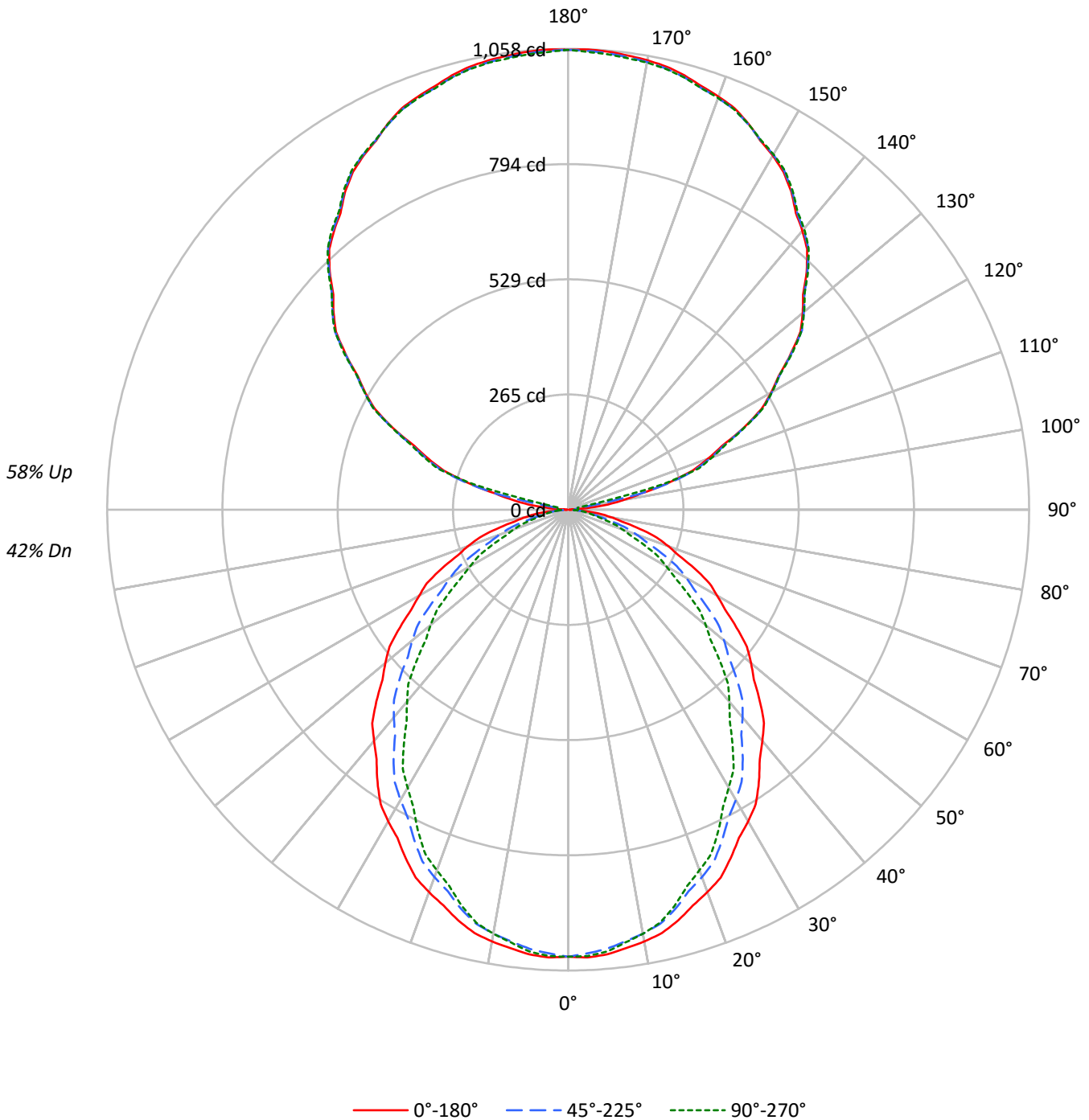
Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332910-840

CATALOG NUMBER: S124RDIP-S575D810U840-4F0-1E-UDD-F

Luminous Intensity Polar Plot





TEST NUMBER: P332910-840

CATALOG NUMBER: S124RDIP-S575D810U840-4F0-1E-UDD-F

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	50	30	10	0														
RCR																																						
0	105	105	105	105	96	96	96	96	79	79	79	63	63	63	49	49	49	42																				
1	96	92	88	85	88	84	81	78	69	67	65	56	54	53	44	43	42	36																				
2	88	81	75	70	80	74	69	64	61	57	54	49	47	45	39	37	35	30																				
3	80	71	64	58	73	65	59	54	54	50	46	44	41	38	34	32	30	26																				
4	73	63	55	49	67	58	51	46	48	43	39	39	36	33	31	28	26	22																				
5	67	56	48	42	61	52	45	40	43	38	34	35	31	28	28	25	23	20																				
6	62	50	42	37	57	46	39	34	39	34	30	32	28	25	25	23	20	17																				
7	57	45	38	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15																				
8	53	41	34	28	49	38	31	27	32	27	23	27	23	20	21	18	16	14																				
9	50	38	30	25	45	35	28	24	29	24	21	24	21	18	20	17	15	13																				
10	46	35	27	23	42	32	26	21	27	22	19	23	19	16	18	15	13	11																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8285	8285	8285
5°	8304	8203	8253
10°	8252	8104	8104
15°	8157	7934	7875
20°	8027	7710	7568
25°	7861	7448	7259
30°	7699	7171	6871
35°	7521	6885	6482
40°	7304	6559	6062
45°	7106	6235	5634
50°	6880	5863	5181
55°	6636	5475	4690
60°	6370	5050	4187
65°	6124	4518	3692
70°	5769	3932	3135
75°	5321	3260	2548
80°	4640	2483	2338
85°	3927	2251	2112



TEST NUMBER: P332910-840

CATALOG NUMBER: S124RDIP-S575D810U840-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.4	1.7
10°-20°	268.8	4.8
20°-30°	388.2	6.9
30°-40°	440.0	7.8
40°-50°	424.9	7.5
50°-60°	353.4	6.3
60°-70°	244.0	4.3
70°-80°	123.7	2.2
80°-90°	34.8	0.6
90°-100°	36.1	0.6
100°-110°	230.2	4.1
110°-120°	440.4	7.8
120°-130°	559.1	9.9
130°-140°	598.2	10.6
140°-150°	559.3	9.9
150°-160°	451.1	8.0
160°-170°	290.9	5.2
170°-180°	100.3	1.8
0°-30°	753.5	13.4
0°-40°	1193.5	21.2
0°-60°	1971.8	35.0
0°-90°	2374.2	42.1
90°-120°	706.7	12.5
90°-150°	2423.3	43.0
90°-180°	3266.0	57.9
0°-180°	5639.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1026	1026	1026	1026	1026	
5°	1025	1021	1012	1020	1018	97
15°	976	968	949	948	942	275
25°	882	867	836	823	815	406
35°	763	737	699	673	658	477
45°	622	592	546	509	494	480
55°	472	439	389	350	333	422
65°	321	286	236	204	193	317
75°	171	141	104	87	82	180
85°	42	28	24	23	23	48
90°	2	11	17	22	24	4
95°	43	18	17	22	23	56
105°	238	242	246	252	225	249
115°	444	446	445	447	447	437
125°	624	627	625	628	628	557
135°	774	773	776	778	779	596
145°	892	894	895	895	897	557
155°	978	979	977	980	978	451
165°	1032	1028	1028	1034	1027	292
175°	1056	1051	1052	1058	1049	100
180°	1056	1056	1056	1056	1056	



TEST NUMBER: P332910-840

CATALOG NUMBER: S124RDIP-S575D810U840-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1026.3	1026.3	1026.3	1026.3	1026.3	1026.3	1026.3	1026.3	1026.3	1026.3	1026.3
2.5°	1028.9	1028.2	1027.7	1027.1	1026.6	1025.5	1024.0	1022.5	1020.9	1019.4	1020.9
5°	1024.7	1024.0	1023.3	1022.6	1022.0	1020.6	1018.4	1016.3	1014.2	1012.2	1013.9
7.5°	1015.4	1014.7	1014.0	1013.3	1012.5	1010.8	1008.0	1005.3	1002.6	999.9	1001.0
10°	1006.6	1005.8	1004.9	1004.0	1003.2	1001.2	998.0	994.8	991.7	988.6	989.3
12.5°	995.3	994.3	993.3	992.3	991.3	989.0	985.2	981.5	977.9	974.1	974.5
15°	976.0	974.4	972.9	971.3	969.7	966.7	962.4	958.1	953.6	949.3	949.0
17.5°	952.6	950.3	948.1	945.7	943.5	939.8	934.5	929.3	924.0	918.8	917.9
20°	934.3	932.1	929.8	927.6	925.2	921.2	915.2	909.3	903.3	897.5	896.1
22.5°	914.2	911.7	909.2	906.6	904.0	899.6	893.2	886.9	880.5	874.1	872.0
25°	882.5	879.4	876.2	873.0	869.9	864.7	857.6	850.4	843.2	836.2	833.1
27.5°	849.2	845.3	841.3	837.4	833.3	827.6	819.9	812.3	804.7	797.0	793.3
30°	825.9	821.5	817.2	812.8	808.5	802.1	794.0	785.8	777.5	769.3	765.0
32.5°	801.4	796.5	791.5	786.6	781.7	775.0	766.5	758.0	749.5	741.0	736.0
35°	763.1	757.5	751.8	746.3	740.7	733.6	724.8	716.1	707.3	698.6	692.7
37.5°	722.1	716.3	710.5	704.8	698.9	691.3	681.6	671.9	662.3	652.6	645.9
40°	693.1	687.3	681.6	675.8	670.0	662.2	652.3	642.3	632.4	622.4	615.0
42.5°	665.4	659.4	653.4	647.3	641.3	633.1	622.7	612.3	602.0	591.6	584.1
45°	622.4	615.9	609.5	603.0	596.5	588.0	577.5	567.1	556.6	546.1	537.6
47.5°	577.9	571.3	564.5	557.8	551.2	542.4	531.5	520.7	509.8	498.9	490.0
50°	547.8	540.9	534.1	527.3	520.5	511.5	500.3	489.2	478.0	466.8	458.1
52.5°	516.9	510.3	503.6	497.0	490.2	481.2	469.7	458.3	446.8	435.4	426.5
55°	471.5	464.5	457.6	450.5	443.5	434.3	423.0	411.7	400.3	389.0	379.9
57.5°	426.6	419.3	412.0	404.8	397.5	388.3	377.1	365.9	354.8	343.6	334.4
60°	394.5	387.5	380.5	373.5	366.6	357.5	346.3	335.1	324.0	312.8	303.7
62.5°	365.6	358.3	351.0	343.8	336.5	327.2	315.7	304.3	292.8	281.3	273.0
65°	320.6	313.2	305.6	298.1	290.5	281.2	270.0	258.9	247.7	236.5	229.0
67.5°	274.0	266.7	259.5	252.4	245.2	236.4	226.0	215.6	205.3	194.9	188.4
70°	244.4	237.0	229.7	222.4	215.1	206.4	196.4	186.5	176.5	166.6	160.9
72.5°	213.0	206.3	199.7	193.1	186.4	178.4	169.1	159.7	150.2	140.8	135.9
75°	170.6	164.1	157.6	151.2	144.7	137.3	129.2	120.9	112.7	104.5	100.5
77.5°	127.4	122.0	116.5	111.0	105.5	99.5	92.8	86.2	79.6	72.9	70.6
80°	99.8	94.7	89.7	84.6	79.6	74.4	69.2	63.9	58.7	53.4	52.9
82.5°	75.9	71.3	66.7	62.0	57.4	53.5	50.5	47.5	44.5	41.5	41.1
85°	42.4	39.0	35.4	31.9	28.5	26.5	26.0	25.4	24.8	24.3	24.0
87.5°	14.9	14.2	13.4	12.7	12.0	11.7	11.8	12.0	12.1	12.3	12.3
90°	2.3	4.3	6.3	8.2	10.1	11.7	13.1	14.5	16.0	17.4	18.4
92.5°	10.0	10.1	10.2	10.3	10.4	11.1	12.5	13.9	15.3	16.8	17.8
95°	43.4	37.5	31.5	25.5	19.6	16.7	16.9	17.1	17.2	17.4	18.4
97.5°	92.2	95.9	99.7	103.4	107.1	99.2	79.6	60.0	40.4	20.8	20.9
100°	129.5	132.7	135.8	139.0	142.1	131.6	107.3	83.2	59.0	34.7	31.7
102.5°	171.2	173.5	175.8	178.1	180.5	180.1	176.8	173.7	170.6	167.4	135.2
105°	237.6	238.7	239.7	240.9	241.9	242.9	243.7	244.6	245.5	246.3	247.9
107.5°	299.4	299.9	300.4	301.0	301.5	302.4	303.6	304.8	306.0	307.2	307.9
110°	341.1	341.6	342.1	342.6	343.3	344.0	345.1	346.1	347.2	348.2	348.6



TEST NUMBER: P332910-840

CATALOG NUMBER: S124RDIP-S575D810U840-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	381.5	382.4	383.4	384.4	385.4	386.1	386.6	387.0	387.5	388.0	388.0
115°	443.7	444.2	444.8	445.4	445.9	446.1	445.9	445.7	445.6	445.4	445.7
117.5°	499.8	500.5	501.2	501.9	502.6	503.2	503.5	503.9	504.3	504.7	504.6
120°	537.8	538.5	539.2	539.9	540.5	540.8	540.6	540.5	540.3	540.1	540.5
122.5°	573.1	573.5	573.9	574.3	574.8	575.1	575.3	575.6	575.8	576.1	576.3
125°	623.8	624.5	625.2	625.9	626.6	626.7	626.4	626.1	625.7	625.4	625.9
127.5°	671.8	672.0	672.2	672.4	672.5	673.0	673.8	674.6	675.4	676.2	676.1
130°	702.8	703.0	703.1	703.3	703.5	703.8	704.3	704.9	705.4	705.9	706.1
132.5°	731.1	731.4	731.8	732.2	732.5	733.0	733.6	734.3	734.9	735.6	735.8
135°	773.9	773.7	773.5	773.3	773.2	773.4	774.1	774.8	775.5	776.2	776.5
137.5°	811.5	811.6	811.7	811.7	811.8	812.2	813.0	813.9	814.6	815.4	815.8
140°	836.2	836.6	836.9	837.3	837.6	838.0	838.3	838.7	839.0	839.3	839.9
142.5°	858.3	858.9	859.6	860.2	860.8	861.2	861.4	861.7	861.9	862.1	862.5
145°	892.2	892.8	893.3	893.8	894.3	894.6	894.6	894.6	894.6	894.6	894.8
147.5°	919.3	920.3	921.2	922.2	923.2	923.6	923.4	923.2	923.0	922.9	923.0
150°	938.9	939.6	940.3	941.0	941.6	941.9	941.7	941.6	941.4	941.2	941.2
152.5°	955.2	955.8	956.3	956.9	957.6	957.7	957.4	957.0	956.6	956.3	956.6
155°	978.4	978.5	978.7	978.9	979.1	978.9	978.4	977.8	977.2	976.7	977.4
157.5°	997.7	997.6	997.5	997.4	997.3	996.9	996.3	995.8	995.2	994.6	995.5
160°	1009.2	1008.6	1008.0	1007.5	1007.0	1006.6	1006.5	1006.3	1006.1	1005.9	1007.0
162.5°	1019.3	1018.5	1017.8	1017.2	1016.5	1016.1	1015.9	1015.8	1015.6	1015.4	1016.5
165°	1032.0	1031.2	1030.3	1029.4	1028.5	1028.0	1028.0	1028.0	1028.0	1028.0	1029.5
167.5°	1042.1	1041.2	1040.3	1039.4	1038.4	1037.9	1037.8	1037.7	1037.6	1037.5	1039.1
170°	1047.8	1046.7	1045.7	1044.6	1043.6	1043.2	1043.3	1043.5	1043.7	1043.9	1045.2
172.5°	1051.6	1050.6	1049.5	1048.4	1047.4	1046.9	1047.1	1047.3	1047.4	1047.6	1049.0
175°	1055.7	1054.6	1053.6	1052.6	1051.5	1051.1	1051.3	1051.4	1051.6	1051.8	1053.3
177.5°	1057.6	1056.6	1055.6	1054.6	1053.7	1053.3	1053.6	1053.9	1054.2	1054.4	1055.5
180°	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7



TEST NUMBER: P332910-840

CATALOG NUMBER: S124RDIP-S575D810U840-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1026.3	1026.3	1026.3	1026.3	1026.3	1026.3	1026.3	1026.3
2.5°	1022.5	1024.0	1025.5	1026.2	1026.1	1025.9	1025.8	1025.7
5°	1015.6	1017.4	1019.2	1019.9	1019.5	1019.2	1018.8	1018.4
7.5°	1002.1	1003.2	1004.4	1004.6	1004.1	1003.5	1003.0	1002.4
10°	990.0	990.7	991.4	991.4	990.7	990.0	989.3	988.6
12.5°	974.9	975.3	975.8	975.5	974.5	973.6	972.6	971.6
15°	948.6	948.3	947.9	947.2	945.8	944.6	943.4	942.2
17.5°	916.9	915.8	914.8	913.4	911.6	909.8	907.9	906.1
20°	894.6	893.2	891.8	890.0	887.8	885.4	883.2	880.9
22.5°	870.0	867.9	865.8	863.8	861.9	860.1	858.3	856.4
25°	830.2	827.2	824.3	821.9	820.1	818.4	816.7	814.9
27.5°	789.6	786.0	782.3	779.2	776.7	774.2	771.7	769.2
30°	760.6	756.2	751.8	748.3	745.5	742.7	739.9	737.1
32.5°	730.9	725.9	720.7	716.9	714.3	711.7	708.9	706.3
35°	686.7	680.8	674.9	670.3	667.2	664.0	660.9	657.7
37.5°	639.2	632.7	626.0	621.2	617.9	614.8	611.7	608.5
40°	607.7	600.4	593.0	587.8	584.6	581.5	578.3	575.2
42.5°	576.6	569.2	561.7	556.3	553.0	549.8	546.4	543.2
45°	529.1	520.5	511.9	506.0	502.9	499.8	496.7	493.5
47.5°	481.1	472.2	463.3	457.2	453.7	450.3	446.9	443.3
50°	449.3	440.6	431.8	425.9	422.5	419.2	415.9	412.5
52.5°	417.6	408.7	399.9	393.7	390.2	386.8	383.3	379.9
55°	370.8	361.7	352.6	346.5	343.2	339.8	336.5	333.2
57.5°	325.1	315.9	306.7	300.8	298.3	295.8	293.3	290.7
60°	294.6	285.5	276.4	270.5	267.7	264.9	262.2	259.3
62.5°	264.6	256.2	247.8	242.5	240.2	238.0	235.8	233.6
65°	221.6	214.0	206.5	201.7	199.7	197.5	195.4	193.3
67.5°	182.0	175.5	169.1	164.7	162.4	160.1	157.7	155.4
70°	155.1	149.4	143.5	139.8	138.0	136.3	134.5	132.8
72.5°	131.0	126.0	121.1	117.9	116.2	114.6	113.0	111.4
75°	96.4	92.5	88.5	85.9	84.8	83.8	82.8	81.7
77.5°	68.3	65.9	63.5	62.2	61.9	61.6	61.3	61.0
80°	52.4	51.9	51.3	51.0	50.8	50.6	50.5	50.3
82.5°	40.7	40.3	40.0	39.7	39.5	39.3	39.2	39.0
85°	23.6	23.3	22.9	22.8	22.8	22.8	22.8	22.8
87.5°	12.4	12.5	12.5	12.7	12.9	13.1	13.3	13.5
90°	19.5	20.5	21.6	22.3	22.6	23.0	23.3	23.7
92.5°	18.9	19.9	20.9	21.5	21.6	21.6	21.7	21.8
95°	19.5	20.5	21.6	22.2	22.4	22.5	22.7	22.9
97.5°	21.1	21.2	21.3	21.4	21.6	21.7	21.9	22.1
100°	28.8	25.8	22.8	21.4	21.6	21.7	21.9	22.1
102.5°	103.0	70.9	38.7	22.6	22.6	22.6	22.7	22.7
105°	249.5	251.1	252.7	250.3	244.0	237.6	231.4	225.0
107.5°	308.7	309.4	310.2	310.9	311.6	312.3	313.0	313.7
110°	348.9	349.3	349.6	350.0	350.6	351.1	351.6	352.1



TEST NUMBER: P332910-840

CATALOG NUMBER: S124RDIP-S575D810U840-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	387.9	387.8	387.7	388.0	388.7	389.4	390.0	390.7
115°	446.1	446.4	446.8	447.0	447.0	447.0	447.0	447.0
117.5°	504.5	504.5	504.4	504.3	504.3	504.2	504.1	504.1
120°	540.8	541.2	541.5	541.5	541.2	540.8	540.5	540.1
122.5°	576.5	576.7	576.9	576.8	576.5	576.1	575.8	575.4
125°	626.4	626.9	627.4	627.8	628.0	628.1	628.3	628.5
127.5°	676.0	675.9	675.8	675.7	675.5	675.4	675.3	675.1
130°	706.3	706.4	706.6	706.7	706.7	706.7	706.7	706.7
132.5°	736.0	736.1	736.3	736.3	736.2	736.0	735.9	735.8
135°	776.9	777.2	777.6	777.9	778.3	778.6	779.0	779.3
137.5°	816.1	816.5	816.9	817.0	816.9	816.8	816.7	816.6
140°	840.4	840.9	841.4	841.8	842.0	842.1	842.3	842.5
142.5°	862.8	863.2	863.6	863.8	863.8	863.9	863.9	863.9
145°	894.9	895.1	895.3	895.5	896.0	896.3	896.7	897.0
147.5°	923.2	923.3	923.4	923.6	923.8	923.9	924.1	924.3
150°	941.2	941.2	941.2	941.3	941.5	941.6	941.8	942.0
152.5°	956.9	957.3	957.5	957.6	957.5	957.4	957.3	957.2
155°	978.2	978.9	979.6	979.7	979.1	978.6	978.1	977.5
157.5°	996.4	997.3	998.3	998.3	997.3	996.4	995.5	994.6
160°	1008.0	1009.2	1010.2	1010.2	1009.2	1008.0	1007.0	1005.9
162.5°	1017.5	1018.5	1019.7	1019.6	1018.3	1017.1	1016.0	1014.8
165°	1030.9	1032.3	1033.7	1033.6	1032.0	1030.5	1028.9	1027.2
167.5°	1040.7	1042.2	1043.7	1043.6	1041.9	1040.1	1038.3	1036.6
170°	1046.6	1048.0	1049.5	1049.2	1047.5	1045.8	1044.0	1042.3
172.5°	1050.5	1051.9	1053.3	1053.0	1051.2	1049.2	1047.3	1045.4
175°	1054.9	1056.5	1058.0	1057.8	1055.7	1053.6	1051.5	1049.4
177.5°	1056.7	1057.8	1058.9	1058.6	1056.9	1055.3	1053.6	1051.9
180°	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7

(END OF REPORT)