

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: P333411-927

Luminaire Tested: **S125DIW-S850D770U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333411-927
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: S125DIW-S850D770U927-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 770 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4816.4 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

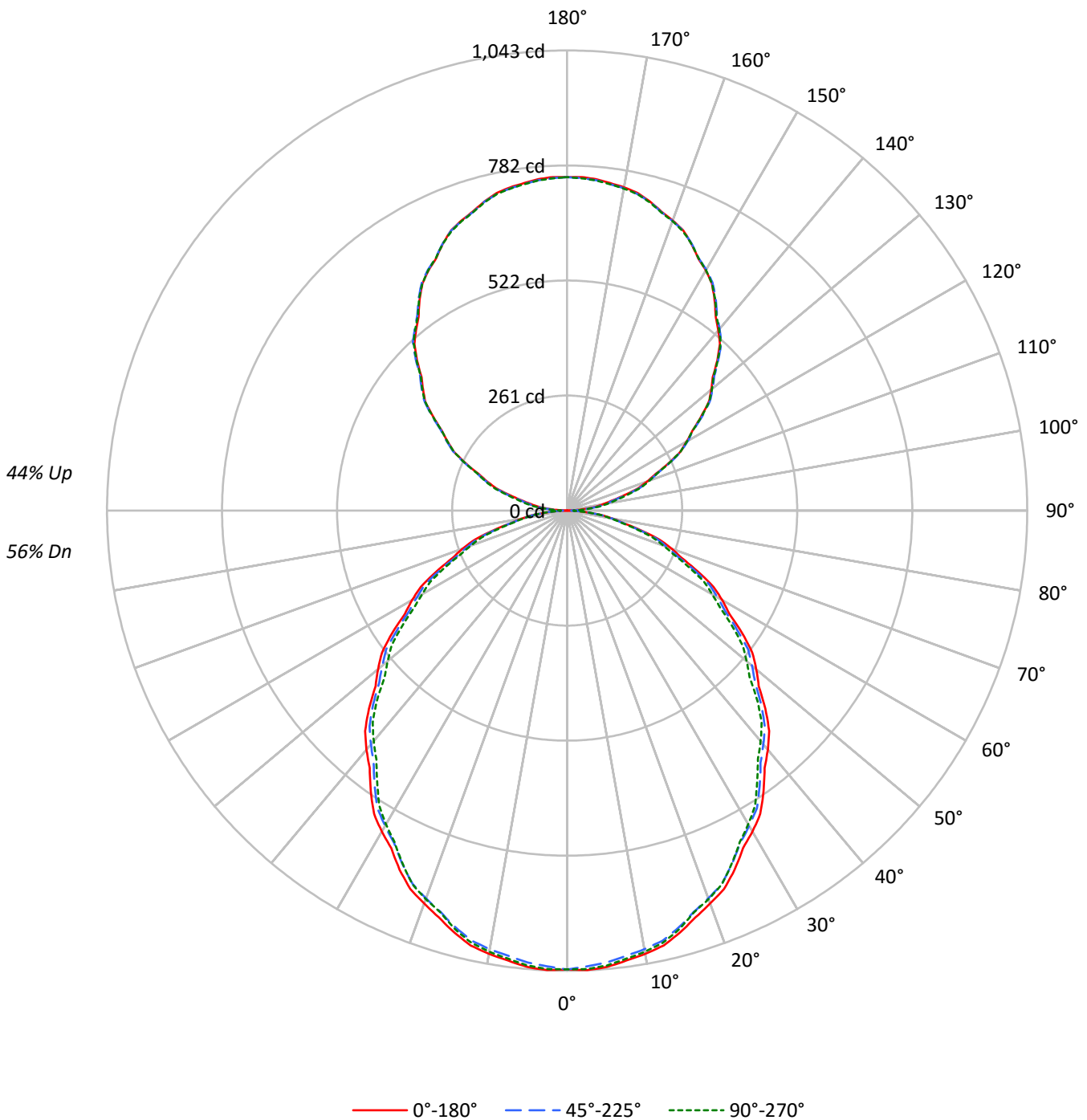
Input Watts (W): 45
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56																			
1	99	95	91	87	92	88	85	82	76	73	71	65	63	61	55	53	52	47																			
2	90	83	76	71	84	77	72	67	67	62	59	57	54	51	48	46	44	39																			
3	82	73	65	59	76	68	61	56	59	54	49	50	46	43	42	40	37	33																			
4	75	64	56	50	70	60	53	47	52	47	42	45	41	37	38	35	32	29																			
5	69	57	49	43	64	54	46	41	47	41	36	40	36	32	34	31	28	25																			
6	64	51	43	37	59	48	41	35	42	36	32	36	32	28	31	27	25	22																			
7	59	46	38	33	55	44	36	31	38	32	28	33	28	25	28	25	22	19																			
8	55	42	34	29	51	40	33	28	35	29	25	30	26	22	26	22	20	17																			
9	51	39	31	26	47	36	29	25	32	26	22	28	23	20	24	20	18	16																			
10	48	35	28	23	44	33	27	22	29	24	20	26	21	18	22	19	16	14																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6716	6716	6716
5°	6731	6667	6710
10°	6690	6620	6658
15°	6618	6540	6568
20°	6514	6429	6441
25°	6402	6297	6291
30°	6264	6154	6123
35°	6117	6000	5916
40°	5966	5833	5751
45°	5802	5681	5569
50°	5621	5497	5332
55°	5447	5290	5141
60°	5239	5079	4899
65°	4991	4828	4664
70°	4755	4538	4381
75°	4332	4190	4045
80°	3857	3794	3704
85°	3349	3416	3231



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.1	2.0
10°-20°	277.0	5.8
20°-30°	409.0	8.5
30°-40°	477.2	9.9
40°-50°	479.3	10.0
50°-60°	420.7	8.7
60°-70°	313.5	6.5
70°-80°	179.3	3.7
80°-90°	53.8	1.1
90°-100°	50.6	1.1
100°-110°	149.5	3.1
110°-120°	253.2	5.3
120°-130°	333.2	6.9
130°-140°	373.3	7.8
140°-150°	365.9	7.6
150°-160°	307.3	6.4
160°-170°	204.3	4.2
170°-180°	71.5	1.5
0°-30°	784.0	16.3
0°-40°	1261.2	26.2
0°-60°	2161.2	44.9
0°-90°	2707.8	56.2
90°-120°	453.2	9.4
90°-150°	1525.6	31.7
90°-180°	2109.0	43.8
0°-180°	4816.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1040	1040	1040	1040	1040	
5°	1038	1036	1028	1035	1035	98
15°	990	987	978	982	982	279
25°	898	894	884	885	883	413
35°	776	772	761	757	750	485
45°	635	631	622	612	610	489
55°	484	481	470	462	457	432
65°	327	325	316	309	305	324
75°	174	172	168	165	162	185
85°	45	46	46	45	44	51
90°	1	5	9	12	14	5
95°	38	40	45	49	50	41
105°	134	137	140	144	146	143
115°	254	256	257	256	256	251
125°	370	373	374	373	372	331
135°	481	484	485	485	483	371
145°	583	585	587	587	585	364
155°	667	667	668	670	667	307
165°	725	724	724	726	723	204
175°	754	752	752	755	751	72
180°	756	756	756	756	756	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9
2.5°	1042.6	1042.1	1041.7	1041.2	1040.8	1039.8	1038.4	1037.0	1035.5	1034.0	1035.5
5°	1038.3	1037.9	1037.5	1037.2	1036.8	1035.7	1033.9	1032.1	1030.2	1028.4	1030.1
7.5°	1028.7	1028.4	1028.0	1027.6	1027.3	1026.1	1024.1	1022.1	1020.1	1018.0	1019.6
10°	1020.2	1019.9	1019.5	1019.1	1018.7	1017.6	1015.5	1013.5	1011.5	1009.5	1011.0
12.5°	1009.6	1009.0	1008.4	1007.7	1007.0	1005.8	1003.9	1002.0	1000.1	998.3	999.5
15°	989.8	989.2	988.6	988.1	987.5	986.3	984.3	982.2	980.2	978.2	979.1
17.5°	966.9	966.1	965.3	964.5	963.7	962.2	960.1	958.1	955.9	953.9	955.0
20°	947.8	947.5	947.1	946.7	946.3	944.9	942.5	940.2	937.8	935.4	936.8
22.5°	928.7	928.0	927.4	926.7	926.1	924.6	922.4	920.1	917.9	915.7	916.6
25°	898.4	897.5	896.6	895.6	894.8	893.1	890.7	888.4	886.0	883.6	884.0
27.5°	863.0	862.5	862.0	861.4	860.9	859.4	856.9	854.4	852.0	849.5	849.6
30°	840.0	839.5	838.9	838.4	837.8	836.1	833.5	830.7	827.9	825.2	824.8
32.5°	815.0	814.1	813.3	812.5	811.7	810.0	807.6	805.1	802.6	800.2	799.5
35°	775.9	775.1	774.4	773.6	772.9	771.3	768.7	766.1	763.6	761.0	760.1
37.5°	735.2	734.3	733.3	732.5	731.5	729.8	727.5	725.0	722.6	720.3	718.8
40°	707.6	706.6	705.8	704.8	703.9	702.2	699.6	697.0	694.5	691.9	690.3
42.5°	677.9	677.2	676.4	675.7	674.9	673.2	670.7	668.0	665.5	663.0	661.5
45°	635.2	634.4	633.7	633.0	632.2	630.7	628.6	626.4	624.2	622.0	619.8
47.5°	589.1	589.1	589.1	589.1	589.2	588.0	585.3	582.7	580.0	577.4	575.1
50°	559.4	558.9	558.3	557.8	557.3	555.9	553.7	551.5	549.3	547.1	544.7
52.5°	529.2	528.8	528.4	528.0	527.6	526.2	523.9	521.5	519.2	516.8	514.8
55°	483.8	483.2	482.7	482.1	481.6	480.0	477.4	474.9	472.3	469.8	468.1
57.5°	435.9	435.6	435.3	435.0	434.7	433.5	431.3	429.2	427.0	424.8	422.7
60°	405.6	404.9	404.2	403.4	402.7	401.3	399.3	397.3	395.3	393.2	391.4
62.5°	374.0	373.4	372.9	372.2	371.7	370.5	368.8	367.1	365.4	363.6	361.7
65°	326.6	326.2	325.9	325.5	325.2	324.0	321.9	320.0	317.9	315.9	314.3
67.5°	280.7	280.0	279.2	278.4	277.7	276.5	275.0	273.5	272.0	270.5	269.1
70°	251.8	250.8	249.9	249.0	248.1	246.8	245.2	243.5	241.9	240.3	239.2
72.5°	220.1	219.5	218.9	218.3	217.7	216.8	215.8	214.7	213.7	212.6	211.4
75°	173.6	173.3	172.9	172.5	172.1	171.5	170.6	169.7	168.7	167.9	167.3
77.5°	130.6	130.5	130.4	130.2	130.1	129.8	129.2	128.7	128.2	127.7	127.4
80°	103.7	103.7	103.7	103.7	103.7	103.5	103.1	102.7	102.3	102.0	101.9
82.5°	79.9	79.7	79.4	79.1	78.8	78.6	78.5	78.5	78.4	78.3	78.0
85°	45.2	45.5	45.6	45.8	45.9	46.1	46.1	46.1	46.1	46.1	45.9
87.5°	17.9	18.1	18.3	18.5	18.7	18.9	18.9	18.9	18.9	19.0	19.1
90°	0.6	1.7	2.7	3.7	4.8	5.8	6.7	7.6	8.5	9.4	10.1
92.5°	14.3	15.0	15.7	16.4	17.2	18.1	19.3	20.4	21.5	22.6	23.4
95°	38.3	38.5	38.7	39.0	39.3	40.1	41.4	42.7	44.0	45.3	46.2
97.5°	63.5	63.6	63.7	63.8	63.9	64.9	66.7	68.5	70.3	72.1	73.0
100°	82.3	82.3	82.3	82.3	82.3	83.2	84.8	86.6	88.2	90.0	91.2
102.5°	102.6	103.1	103.6	104.1	104.6	105.4	106.2	107.1	107.9	108.8	110.1
105°	134.1	134.8	135.4	136.0	136.7	137.4	138.2	138.9	139.7	140.5	141.3
107.5°	168.9	169.5	170.2	170.9	171.5	172.1	172.8	173.3	174.0	174.5	174.9
110°	192.9	193.5	194.2	194.9	195.5	196.0	196.4	196.8	197.2	197.6	198.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	217.4	217.7	218.0	218.4	218.7	219.1	219.6	220.1	220.6	221.1	221.3
115°	253.5	254.0	254.5	255.0	255.6	256.0	256.2	256.4	256.7	257.0	256.8
117.5°	289.7	289.9	290.2	290.4	290.7	290.9	291.1	291.4	291.6	291.8	291.9
120°	312.3	312.9	313.5	314.3	314.9	315.3	315.4	315.5	315.7	315.8	315.8
122.5°	336.8	337.0	337.2	337.5	337.7	337.9	338.3	338.7	339.0	339.3	339.2
125°	369.9	370.7	371.5	372.2	373.0	373.5	373.6	373.8	373.9	374.0	373.8
127.5°	405.2	405.6	406.1	406.5	406.9	407.3	407.4	407.6	407.7	407.9	407.7
130°	426.4	427.0	427.7	428.3	429.0	429.4	429.7	429.9	430.2	430.5	430.3
132.5°	447.5	448.6	449.6	450.8	451.8	452.3	452.3	452.2	452.2	452.1	452.0
135°	481.0	481.8	482.6	483.4	484.2	484.7	484.7	484.9	485.1	485.1	485.1
137.5°	512.5	513.3	514.0	514.8	515.6	516.1	516.4	516.7	517.0	517.3	517.5
140°	532.8	533.5	534.1	534.7	535.4	535.9	536.3	536.7	537.1	537.5	537.7
142.5°	553.0	553.6	554.1	554.7	555.2	555.7	556.3	556.7	557.2	557.7	557.9
145°	582.8	583.3	583.8	584.3	584.9	585.3	585.7	586.1	586.5	586.9	586.9
147.5°	610.3	610.6	610.9	611.2	611.5	611.7	612.0	612.4	612.7	613.0	613.3
150°	628.7	628.5	628.4	628.3	628.1	628.4	628.8	629.4	629.9	630.4	630.4
152.5°	643.7	643.9	644.0	644.3	644.4	644.6	644.8	645.1	645.2	645.5	645.8
155°	666.9	666.9	666.9	666.9	666.9	666.9	667.1	667.2	667.3	667.5	668.0
157.5°	687.6	687.3	687.0	686.7	686.4	686.3	686.5	686.6	686.7	686.9	687.4
160°	699.8	699.4	699.0	698.6	698.2	698.1	698.2	698.4	698.5	698.6	699.2
162.5°	710.7	710.3	710.0	709.8	709.5	709.3	709.4	709.4	709.4	709.5	710.1
165°	725.1	724.8	724.6	724.3	724.1	724.0	724.1	724.2	724.4	724.5	725.0
167.5°	737.4	736.8	736.3	735.8	735.2	735.0	735.0	735.0	735.0	735.0	735.8
170°	743.9	743.4	742.8	742.4	741.8	741.6	741.6	741.6	741.6	741.6	742.4
172.5°	748.6	748.1	747.6	747.0	746.6	746.2	746.2	746.2	746.2	746.2	747.0
175°	753.9	753.4	752.9	752.3	751.8	751.5	751.5	751.5	751.5	751.5	752.3
177.5°	756.6	756.2	755.7	755.3	754.9	754.7	754.6	754.5	754.4	754.2	754.9
180°	755.7	755.7	755.7	755.7	755.7	755.7	755.7	755.7	755.7	755.7	755.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9
2.5°	1037.0	1038.4	1039.8	1040.5	1040.4	1040.2	1040.1	1039.9
5°	1031.7	1033.3	1035.0	1035.7	1035.5	1035.4	1035.1	1035.0
7.5°	1021.3	1022.9	1024.5	1025.2	1025.0	1024.8	1024.6	1024.5
10°	1012.4	1013.9	1015.3	1016.0	1015.8	1015.6	1015.4	1015.3
12.5°	1000.6	1001.8	1003.0	1003.5	1003.5	1003.5	1003.5	1003.4
15°	980.1	981.0	981.9	982.3	982.3	982.3	982.3	982.3
17.5°	956.2	957.3	958.4	958.5	957.6	956.7	955.8	954.9
20°	938.0	939.3	940.6	940.7	939.8	938.9	938.0	937.1
22.5°	917.3	918.2	919.1	919.2	918.5	917.9	917.3	916.7
25°	884.3	884.7	885.1	884.9	884.5	883.9	883.4	882.8
27.5°	849.7	849.8	849.9	849.6	849.1	848.5	848.0	847.4
30°	824.5	824.1	823.7	823.3	822.8	822.2	821.7	821.1
32.5°	798.8	798.2	797.6	796.7	795.7	794.7	793.8	792.8
35°	759.2	758.3	757.4	756.2	754.7	753.3	751.8	750.4
37.5°	717.5	716.1	714.8	713.7	712.9	712.0	711.2	710.3
40°	688.6	687.0	685.3	684.2	683.7	683.2	682.6	682.1
42.5°	660.0	658.5	657.0	655.8	655.0	654.1	653.2	652.4
45°	617.6	615.4	613.2	611.8	611.3	610.8	610.2	609.7
47.5°	572.9	570.7	568.5	566.7	565.5	564.2	562.8	561.6
50°	542.3	540.0	537.6	535.8	534.5	533.2	532.0	530.7
52.5°	512.7	510.6	508.5	506.8	505.3	503.9	502.5	501.1
55°	466.5	464.9	463.2	461.8	460.4	459.1	457.9	456.6
57.5°	420.6	418.5	416.4	414.9	414.2	413.6	412.9	412.2
60°	389.6	387.8	386.0	384.4	383.1	381.8	380.6	379.3
62.5°	359.7	357.7	355.8	354.3	353.3	352.3	351.3	350.3
65°	312.7	311.0	309.3	308.2	307.4	306.7	305.9	305.2
67.5°	267.8	266.3	265.0	264.0	263.6	263.2	262.7	262.3
70°	238.1	236.9	235.8	235.0	234.2	233.5	232.7	232.0
72.5°	210.1	208.9	207.6	206.6	205.9	205.2	204.5	203.7
75°	166.8	166.2	165.6	165.0	164.3	163.5	162.8	162.1
77.5°	127.1	126.7	126.4	126.0	125.4	124.9	124.5	123.9
80°	101.6	101.5	101.3	101.0	100.7	100.3	99.9	99.6
82.5°	77.6	77.3	77.0	76.8	76.8	76.7	76.6	76.5
85°	45.7	45.6	45.3	45.1	44.7	44.4	44.0	43.6
87.5°	19.3	19.4	19.5	19.5	19.3	19.0	18.9	18.6
90°	10.7	11.4	12.0	12.5	12.9	13.3	13.7	14.1
92.5°	24.3	25.2	26.1	26.6	26.9	27.2	27.5	27.7
95°	47.1	48.0	49.0	49.5	49.8	50.1	50.3	50.5
97.5°	73.8	74.7	75.6	76.0	76.2	76.4	76.5	76.7
100°	92.3	93.5	94.7	95.4	95.7	95.9	96.2	96.4
102.5°	111.4	112.6	113.9	114.7	115.1	115.5	115.8	116.2
105°	142.1	142.9	143.7	144.3	144.7	145.0	145.4	145.8
107.5°	175.3	175.7	176.1	176.3	176.3	176.3	176.2	176.2
110°	198.4	198.8	199.2	199.3	199.2	199.0	198.9	198.8



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CATALOG NUMBER: S125DIW-S850D770U927-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	221.5	221.7	221.8	221.8	221.6	221.3	221.1	220.9
115°	256.7	256.6	256.4	256.4	256.2	256.1	256.0	255.8
117.5°	292.0	292.1	292.2	292.0	291.5	291.0	290.4	289.9
120°	315.8	315.8	315.8	315.5	315.1	314.5	313.9	313.5
122.5°	339.1	339.0	338.9	338.7	338.2	337.8	337.4	337.0
125°	373.5	373.2	373.0	372.8	372.6	372.5	372.4	372.2
127.5°	407.7	407.5	407.3	407.2	406.9	406.6	406.4	406.2
130°	430.2	430.1	429.9	429.8	429.5	429.2	429.0	428.7
132.5°	451.9	451.7	451.6	451.3	451.0	450.6	450.3	449.9
135°	485.1	485.1	485.1	484.9	484.3	483.9	483.3	482.8
137.5°	517.6	517.8	517.9	517.6	517.0	516.3	515.7	515.0
140°	538.1	538.3	538.5	538.4	537.7	537.0	536.4	535.8
142.5°	558.0	558.2	558.3	558.1	557.5	556.8	556.1	555.5
145°	586.9	586.9	586.9	586.7	586.3	585.9	585.5	585.1
147.5°	613.6	613.9	614.3	613.9	613.1	612.2	611.3	610.5
150°	630.4	630.4	630.4	630.3	630.0	629.8	629.5	629.2
152.5°	646.1	646.4	646.7	646.7	646.2	645.7	645.2	644.8
155°	668.5	669.0	669.6	669.5	668.8	668.2	667.5	666.9
157.5°	687.9	688.4	689.0	688.8	687.9	687.1	686.2	685.3
160°	699.7	700.2	700.7	700.7	700.0	699.3	698.7	698.1
162.5°	710.7	711.3	711.9	711.9	711.1	710.3	709.6	708.8
165°	725.6	726.1	726.6	726.4	725.7	724.9	724.1	723.3
167.5°	736.6	737.4	738.1	738.1	737.3	736.5	735.7	734.8
170°	743.1	743.9	744.7	744.7	743.7	742.8	741.9	741.0
172.5°	747.8	748.6	749.4	749.4	748.6	747.7	746.9	746.2
175°	753.1	753.9	754.7	754.6	753.7	752.8	751.9	751.0
177.5°	755.5	756.1	756.8	756.7	756.0	755.3	754.6	753.8
180°	755.7	755.7	755.7	755.7	755.7	755.7	755.7	755.7

(END OF REPORT)