

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: P333410-927

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333410-927  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,  
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-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 770 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5139.4 lumens  
Efficiency: N/A  
Efficacy: 114.2 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

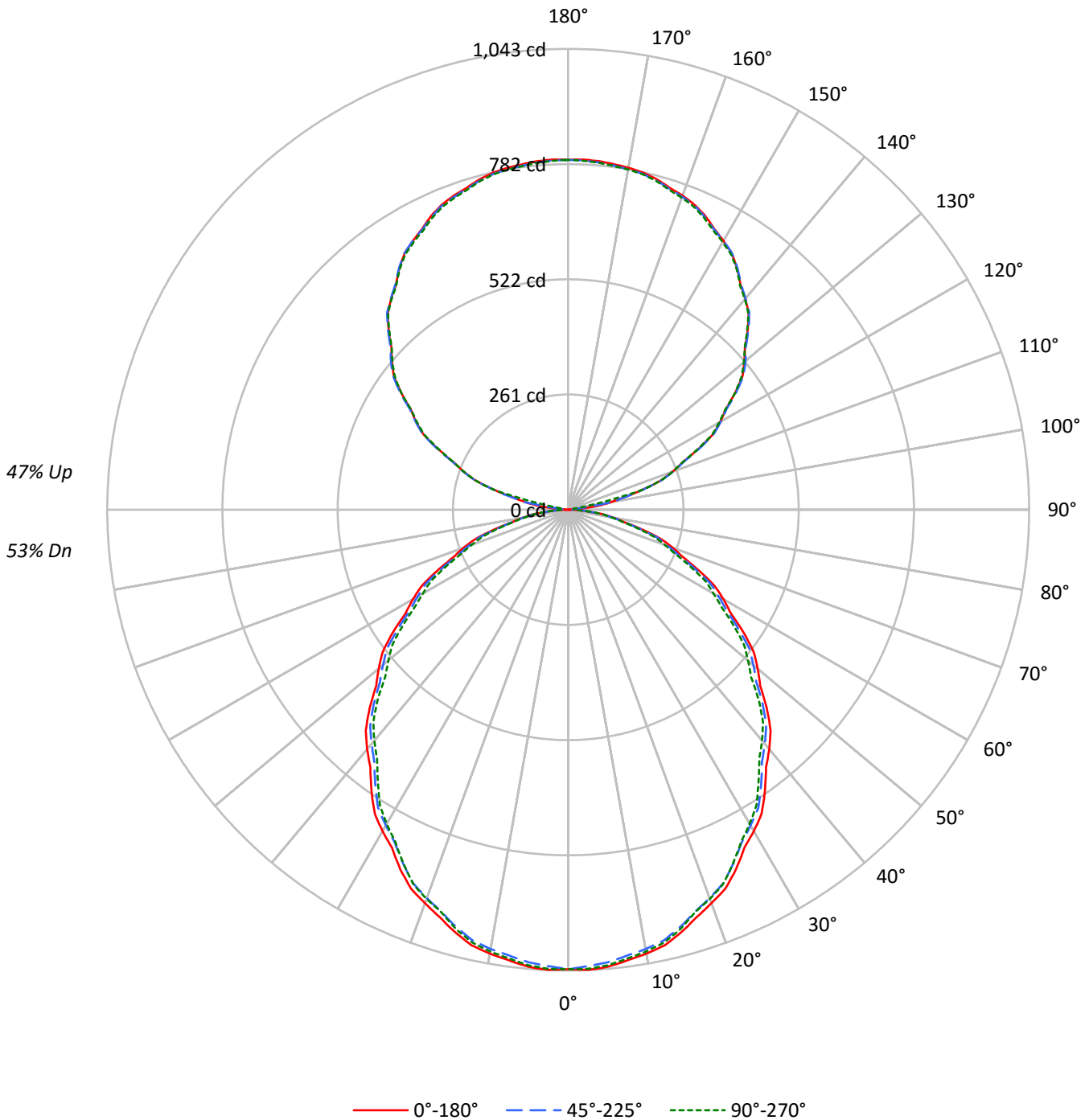
Input Watts (W): 45  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53								
1	98	94	90	86	91	87	84	81	74	72	70	63	61	59	52	50	49	44								
2	89	82	76	71	83	76	71	66	65	61	58	55	52	49	45	43	41	37								
3	82	72	65	59	75	67	60	55	57	52	48	48	45	42	40	38	35	31								
4	75	64	56	50	69	59	52	47	51	46	41	43	39	36	36	33	30	27								
5	69	57	49	43	63	53	46	40	46	40	36	39	34	31	32	29	26	23								
6	63	51	43	37	58	48	40	35	41	35	31	35	31	27	29	26	23	20								
7	58	46	38	32	54	43	36	31	37	31	27	32	27	24	27	23	21	18								
8	54	42	34	29	50	39	32	27	34	28	24	29	25	21	25	21	19	16								
9	50	38	31	26	47	36	29	24	31	26	22	27	22	19	23	19	17	15								
10	47	35	28	23	44	33	26	22	29	23	20	25	20	17	21	18	15	13								

**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	1.9
10°-20°	277.0	5.4
20°-30°	409.0	8.0
30°-40°	477.2	9.3
40°-50°	479.3	9.3
50°-60°	420.7	8.2
60°-70°	313.5	6.1
70°-80°	179.3	3.5
80°-90°	53.8	1.0
90°-100°	28.8	0.6
100°-110°	177.3	3.5
110°-120°	321.6	6.3
120°-130°	412.8	8.0
130°-140°	444.0	8.6
140°-150°	416.7	8.1
150°-160°	337.1	6.6
160°-170°	218.0	4.2
170°-180°	75.2	1.5
0°-30°	784.0	15.3
0°-40°	1261.2	24.5
0°-60°	2161.2	42.1
0°-90°	2707.8	52.7
90°-120°	527.8	10.3
90°-150°	1801.3	35.0
90°-180°	2432.0	47.3
0°-180°	5139.4	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	4
95°	33	31	9	12	12	43
105°	172	175	175	175	174	183
115°	324	327	328	325	322	321
125°	461	465	465	463	461	411
135°	575	578	577	576	572	443
145°	666	667	667	668	664	416
155°	734	730	731	733	728	338
165°	774	771	771	774	770	219
175°	792	789	789	793	788	75
180°	792	792	792	792	792	



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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	5.7	6.7	7.6	8.5	9.4	10.1
92.5°	9.0	8.3	7.6	6.8	6.1	6.2	7.0	7.8	8.6	9.4	10.1
95°	33.4	33.0	32.6	32.3	31.9	29.2	24.2	19.3	14.3	9.4	10.1
97.5°	69.9	70.6	71.3	71.9	72.6	68.1	58.3	48.5	38.7	28.9	25.2
100°	98.0	98.4	98.8	99.2	99.6	100.1	100.6	101.1	101.6	102.1	82.7
102.5°	126.7	127.1	127.7	128.2	128.7	129.0	129.4	129.7	130.0	130.3	126.7
105°	172.5	173.1	173.6	174.1	174.7	174.9	174.9	174.9	174.9	174.9	174.9
107.5°	220.2	220.2	220.2	220.2	220.2	220.4	220.6	220.9	221.2	221.4	221.4
110°	251.2	251.2	251.2	251.2	251.2	251.4	251.6	251.9	252.2	252.4	252.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	280.4	280.7	281.0	281.3	281.6	281.9	282.0	282.2	282.3	282.5	281.9
115°	324.0	324.6	325.3	326.0	326.6	327.0	327.2	327.3	327.4	327.6	327.0
117.5°	369.2	369.2	369.2	369.2	369.1	369.3	369.9	370.3	370.8	371.3	370.7
120°	397.4	397.3	397.1	397.0	396.9	397.0	397.4	397.8	398.2	398.5	398.3
122.5°	422.2	422.8	423.3	423.7	424.3	424.6	424.8	424.9	425.2	425.3	425.1
125°	460.8	461.7	462.6	463.5	464.5	464.9	464.9	464.9	464.9	464.9	464.4
127.5°	497.5	498.2	498.8	499.5	500.1	500.4	500.3	500.3	500.2	500.1	499.8
130°	520.1	520.7	521.3	522.0	522.7	523.1	523.2	523.3	523.5	523.6	523.2
132.5°	542.6	543.4	544.2	544.9	545.7	545.9	545.6	545.3	545.0	544.7	544.6
135°	574.6	575.4	576.2	577.0	577.8	578.1	577.8	577.5	577.3	577.0	576.7
137.5°	604.1	604.8	605.5	606.2	606.8	607.0	606.8	606.6	606.3	606.1	606.2
140°	623.4	623.6	623.9	624.2	624.4	624.5	624.3	624.2	624.1	623.9	624.2
142.5°	640.7	640.9	641.0	641.2	641.4	641.5	641.7	641.9	642.1	642.3	642.3
145°	666.2	666.5	666.8	667.0	667.3	667.4	667.4	667.4	667.4	667.4	667.5
147.5°	688.6	688.5	688.4	688.4	688.3	688.4	688.6	688.6	688.8	689.0	689.1
150°	702.6	702.3	702.1	701.8	701.6	701.6	701.8	702.1	702.3	702.6	702.9
152.5°	716.2	715.7	715.1	714.5	713.9	713.8	714.1	714.3	714.5	714.8	715.1
155°	733.7	732.9	732.1	731.3	730.6	730.3	730.6	730.9	731.1	731.3	731.7
157.5°	747.2	746.8	746.3	745.8	745.4	745.1	745.1	745.2	745.2	745.2	745.7
160°	756.6	755.8	755.0	754.2	753.5	753.1	753.3	753.4	753.5	753.7	754.2
162.5°	764.1	763.3	762.6	761.8	761.0	760.7	760.8	761.0	761.0	761.2	761.9
165°	774.2	773.4	772.7	771.9	771.1	770.8	770.9	771.0	771.2	771.3	772.1
167.5°	781.7	780.9	780.1	779.3	778.5	778.2	778.3	778.4	778.6	778.7	779.6
170°	786.0	785.1	784.1	783.2	782.3	781.9	782.0	782.2	782.3	782.4	783.5
172.5°	788.8	787.9	787.0	786.0	785.1	784.8	785.1	785.3	785.5	785.8	786.6
175°	791.9	791.1	790.3	789.5	788.7	788.4	788.5	788.6	788.8	788.9	790.0
177.5°	793.2	792.6	792.0	791.4	790.8	790.4	790.6	790.7	790.8	790.9	791.6
180°	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9



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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	11.3	12.0	12.5	12.9	13.3	13.7	14.1
92.5°	10.7	11.3	12.0	12.4	12.6	12.8	13.0	13.2
95°	10.7	11.3	12.0	12.4	12.4	12.4	12.4	12.4
97.5°	21.5	17.8	14.2	12.4	12.4	12.4	12.4	12.4
100°	63.3	43.8	24.4	14.4	13.9	13.4	12.8	12.4
102.5°	122.9	119.3	115.6	109.3	100.4	91.6	82.7	73.8
105°	174.9	174.9	174.9	174.8	174.8	174.6	174.4	174.4
107.5°	221.5	221.5	221.5	221.3	220.9	220.5	220.1	219.8
110°	251.6	251.2	250.8	250.7	250.8	251.0	251.1	251.2





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

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	281.5	281.0	280.4	280.1	280.0	279.8	279.6	279.4
115°	326.5	326.0	325.4	324.8	324.0	323.2	322.4	321.6
117.5°	369.9	369.3	368.6	368.1	367.7	367.4	367.1	366.8
120°	398.1	397.8	397.5	397.0	396.4	395.8	395.1	394.4
122.5°	424.8	424.5	424.3	423.7	423.0	422.2	421.5	420.7
125°	463.8	463.3	462.8	462.3	461.9	461.5	461.2	460.8
127.5°	499.6	499.2	499.0	498.4	497.3	496.4	495.4	494.5
130°	522.8	522.4	522.0	521.5	520.9	520.2	519.5	518.9
132.5°	544.5	544.5	544.4	544.1	543.4	542.7	542.1	541.5
135°	576.5	576.2	576.0	575.4	574.6	573.9	573.1	572.3
137.5°	606.3	606.3	606.3	606.0	605.3	604.7	604.0	603.3
140°	624.5	624.7	625.0	624.7	623.9	623.2	622.4	621.6
142.5°	642.4	642.5	642.5	642.1	641.4	640.6	639.8	639.0
145°	667.7	667.8	667.9	667.6	666.8	666.0	665.3	664.5
147.5°	689.3	689.4	689.6	689.2	688.3	687.4	686.4	685.5
150°	703.1	703.4	703.7	703.3	702.2	701.2	700.1	699.1
152.5°	715.3	715.6	715.9	715.5	714.5	713.7	712.7	711.8
155°	732.1	732.5	732.9	732.6	731.6	730.6	729.5	728.4
157.5°	746.1	746.5	746.9	746.6	745.5	744.5	743.5	742.4
160°	754.7	755.3	755.7	755.5	754.5	753.4	752.4	751.3
162.5°	762.6	763.3	764.1	763.9	762.8	761.6	760.5	759.3
165°	772.9	773.6	774.4	774.3	773.2	772.2	771.2	770.1
167.5°	780.5	781.5	782.4	782.4	781.2	780.0	778.8	777.6
170°	784.5	785.6	786.6	786.6	785.4	784.2	783.0	781.9
172.5°	787.6	788.5	789.5	789.3	788.2	787.0	785.8	784.7
175°	791.0	792.0	793.1	793.0	791.9	790.7	789.5	788.3
177.5°	792.3	793.1	793.8	793.8	792.9	792.1	791.2	790.4
180°	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9

(END OF REPORT)