

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: P333686-927

Luminaire Tested: **S125RDIW-S850D770U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333686-927  
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: S125RDIW-S850D770U927-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 770 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5006.7 lumens  
Efficiency: N/A  
Efficacy: 111.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: General Diffuse

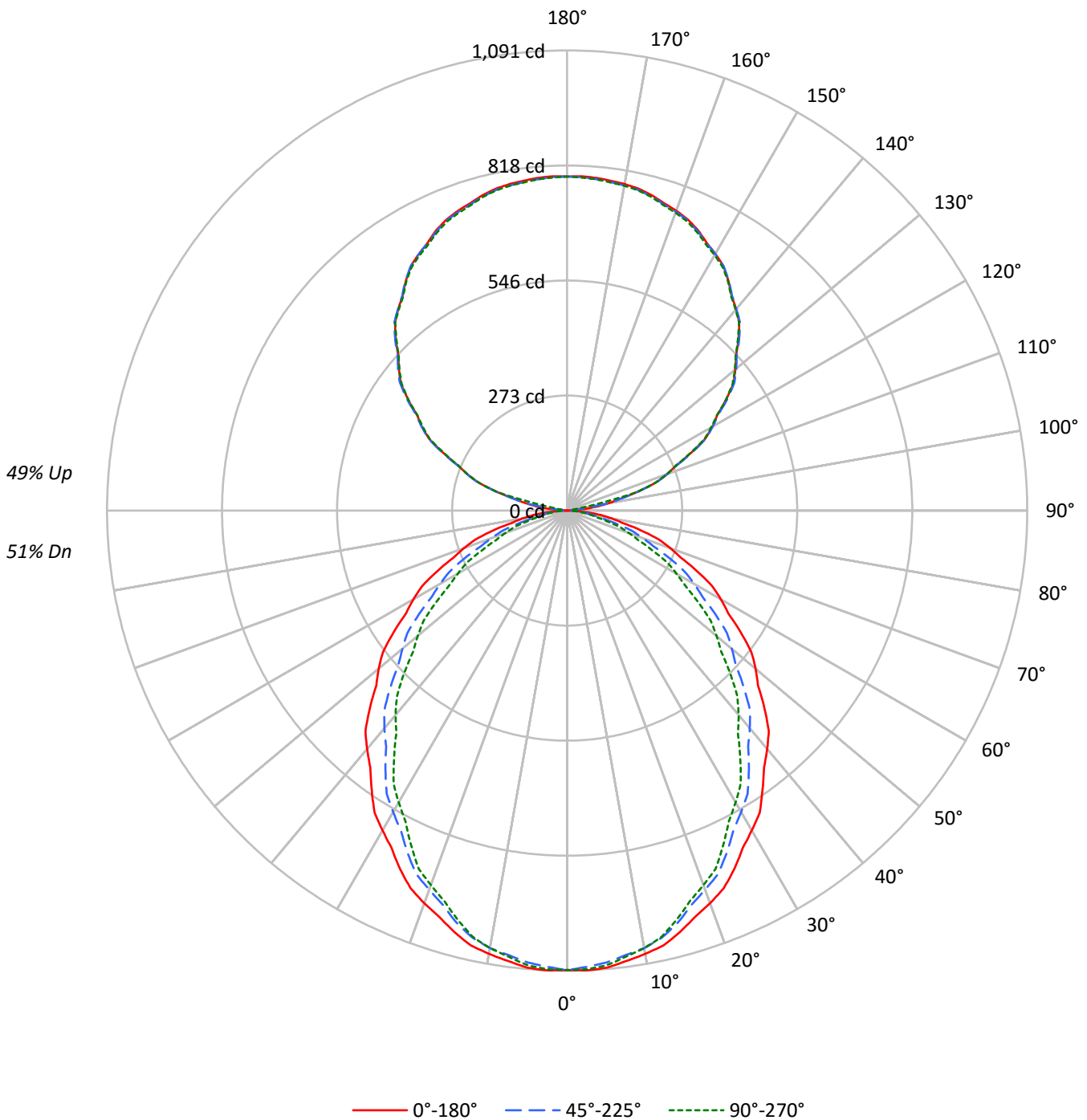
Input Watts (W): 45  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	98	94	90	87	91	87	84	81	74	72	70	62	60	59	51	50	49	44
2	90	82	76	71	83	76	71	67	65	61	58	55	52	50	45	43	42	37
3	82	73	65	60	76	67	61	56	58	53	49	49	45	42	40	38	36	32
4	75	64	57	51	69	60	53	48	51	46	42	43	39	36	36	33	31	27
5	69	57	49	43	64	54	46	41	46	40	36	39	35	32	33	29	27	24
6	64	52	44	38	59	48	41	36	42	36	32	35	31	28	30	26	24	21
7	59	47	39	33	54	44	36	31	38	32	28	32	28	25	27	24	21	19
8	55	42	35	29	50	40	33	28	34	29	25	30	25	22	25	22	19	17
9	51	39	31	26	47	36	30	25	32	26	22	27	23	20	23	20	17	15
10	48	36	28	24	44	33	27	22	29	24	20	25	21	18	21	18	16	14

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7035	7035	7035
5°	7052	6971	7014
10°	6998	6906	6906
15°	6915	6766	6711
20°	6808	6570	6491
25°	6683	6379	6238
30°	6528	6154	5957
35°	6370	5922	5643
40°	6222	5681	5334
45°	6042	5411	4997
50°	5861	5117	4646
55°	5650	4835	4271
60°	5441	4495	3867
65°	5193	4099	3406
70°	4910	3603	2936
75°	4517	3039	2443
80°	3976	2388	2049
85°	3349	1949	1830



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.4	2.0
10°-20°	286.2	5.7
20°-30°	415.1	8.3
30°-40°	473.1	9.4
40°-50°	461.1	9.2
50°-60°	388.2	7.8
60°-70°	272.1	5.4
70°-80°	139.9	2.8
80°-90°	37.0	0.7
90°-100°	28.8	0.6
100°-110°	177.3	3.5
110°-120°	321.6	6.4
120°-130°	412.8	8.2
130°-140°	444.0	8.9
140°-150°	416.7	8.3
150°-160°	337.1	6.7
160°-170°	218.0	4.4
170°-180°	75.2	1.5
0°-30°	803.8	16.1
0°-40°	1276.8	25.5
0°-60°	2126.1	42.5
0°-90°	2575.1	51.4
90°-120°	527.8	10.5
90°-150°	1801.3	36.0
90°-180°	2432.0	48.6
0°-180°	5006.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1089	1089	1089	1089	1089	
5°	1088	1084	1075	1083	1082	103
15°	1034	1029	1012	1011	1004	291
25°	938	925	895	885	875	431
35°	808	787	751	728	716	506
45°	662	636	592	561	547	510
55°	502	474	429	394	379	449
65°	340	311	268	236	223	336
75°	181	156	122	104	98	192
85°	45	31	26	26	25	51
90°	1	5	9	12	14	3
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°	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3
2.5°	1091.2	1090.8	1090.4	1090.0	1089.5	1088.5	1087.1	1085.6	1084.2	1082.7	1084.2
5°	1087.7	1087.0	1086.2	1085.4	1084.7	1083.4	1081.3	1079.3	1077.3	1075.3	1077.1
7.5°	1077.0	1076.3	1075.5	1074.8	1074.2	1072.6	1070.2	1067.8	1065.4	1063.0	1064.2
10°	1067.1	1066.5	1066.0	1065.4	1064.9	1063.3	1060.8	1058.2	1055.7	1053.1	1053.6
12.5°	1055.9	1055.2	1054.5	1053.8	1053.1	1051.1	1047.6	1044.2	1040.8	1037.3	1037.7
15°	1034.2	1033.1	1032.0	1030.9	1029.8	1027.3	1023.5	1019.6	1015.8	1011.9	1011.8
17.5°	1009.6	1008.0	1006.3	1004.6	1002.9	999.7	994.8	990.0	985.2	980.3	979.5
20°	990.5	988.7	986.9	985.1	983.3	979.4	973.6	967.7	961.9	956.0	955.1
22.5°	969.5	967.7	965.8	964.0	962.2	958.2	952.0	945.9	939.8	933.7	931.8
25°	937.9	935.2	932.4	929.7	926.9	922.2	915.4	908.6	901.9	895.2	892.8
27.5°	901.7	898.4	895.1	891.8	888.4	883.1	875.9	868.6	861.4	854.1	850.8
30°	875.4	871.9	868.5	865.0	861.5	855.9	848.3	840.6	832.9	825.2	821.0
32.5°	849.7	845.7	841.6	837.6	833.5	827.5	819.8	811.9	804.1	796.2	791.6
35°	807.9	803.5	799.2	794.7	790.4	784.0	775.9	767.6	759.4	751.1	745.8
37.5°	766.9	761.6	756.3	750.9	745.6	738.7	730.2	721.7	713.2	704.7	698.4
40°	738.0	732.5	727.0	721.5	716.1	708.9	700.1	691.3	682.6	673.8	666.9
42.5°	707.7	702.1	696.5	690.8	685.2	677.9	668.8	659.7	650.6	641.6	634.9
45°	661.5	656.2	650.9	645.5	640.2	632.6	622.5	612.5	602.5	592.4	585.0
47.5°	613.6	608.0	602.4	596.8	591.2	583.4	573.2	563.1	552.9	542.8	535.3
50°	583.3	577.3	571.2	565.2	559.2	551.0	540.5	530.1	519.7	509.3	501.6
52.5°	550.4	544.2	538.1	531.9	525.7	517.7	507.9	498.0	488.1	478.3	470.1
55°	501.8	496.0	490.2	484.3	478.5	470.4	460.2	450.0	439.7	429.4	421.2
57.5°	452.8	446.6	440.3	434.0	427.9	419.8	409.9	400.0	390.1	380.2	372.2
60°	421.2	414.9	408.4	402.0	395.6	387.5	377.6	367.7	357.9	348.0	340.0
62.5°	387.7	381.6	375.5	369.3	363.2	355.2	345.2	335.2	325.1	315.1	307.7
65°	339.8	333.6	327.3	321.2	314.9	307.0	297.3	287.6	277.9	268.2	260.9
67.5°	292.2	286.0	279.8	273.6	267.4	259.6	250.3	241.1	231.8	222.4	215.8
70°	260.0	253.7	247.6	241.3	235.1	227.4	218.3	209.1	200.0	190.8	185.2
72.5°	228.4	222.3	216.3	210.2	204.1	196.8	188.2	179.7	171.1	162.6	157.3
75°	181.0	175.5	170.0	164.5	159.1	152.5	144.8	137.1	129.4	121.8	117.7
77.5°	134.0	129.5	125.2	120.8	116.4	111.1	105.0	98.9	92.7	86.6	83.7
80°	106.9	102.6	98.2	93.8	89.4	84.7	79.5	74.4	69.3	64.2	62.5
82.5°	80.6	76.7	72.7	68.8	64.8	61.1	57.6	54.1	50.5	47.1	46.3
85°	45.2	42.0	38.7	35.4	32.1	29.9	29.1	28.1	27.3	26.3	26.1
87.5°	15.3	14.4	13.6	12.8	12.0	11.6	11.6	11.6	11.7	11.7	11.9
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°	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3	1089.3
2.5°	1085.6	1087.1	1088.5	1089.3	1089.1	1088.9	1088.8	1088.6
5°	1079.0	1080.8	1082.6	1083.4	1083.0	1082.6	1082.3	1081.9
7.5°	1065.6	1066.8	1068.1	1068.5	1068.1	1067.7	1067.3	1066.9
10°	1054.2	1054.7	1055.3	1055.3	1054.7	1054.2	1053.6	1053.1
12.5°	1038.1	1038.5	1038.9	1038.7	1037.8	1037.0	1036.2	1035.3
15°	1011.6	1011.4	1011.2	1010.3	1008.7	1007.0	1005.4	1003.7
17.5°	978.5	977.6	976.7	975.6	974.2	972.9	971.5	970.2
20°	954.2	953.2	952.4	951.1	949.4	947.8	946.1	944.5
22.5°	930.0	928.3	926.5	924.9	923.5	922.2	920.8	919.5
25°	890.4	888.0	885.7	883.4	881.4	879.4	877.4	875.4
27.5°	847.5	844.1	840.8	838.2	836.3	834.3	832.4	830.4
30°	816.8	812.6	808.3	805.5	803.8	802.2	800.5	798.8
32.5°	787.0	782.3	777.7	774.3	772.2	770.2	768.0	766.0
35°	740.5	735.2	729.9	726.0	723.4	720.9	718.4	715.7
37.5°	692.1	685.6	679.3	674.9	672.4	669.9	667.4	665.0
40°	659.9	653.0	646.0	641.4	639.3	637.1	634.9	632.7
42.5°	628.3	621.6	615.0	610.0	606.8	603.6	600.3	597.1
45°	577.7	570.5	563.1	558.1	555.3	552.6	549.9	547.1
47.5°	527.8	520.2	512.7	507.4	504.4	501.4	498.3	495.3
50°	493.9	486.2	478.6	473.3	470.6	467.9	465.1	462.4
52.5°	461.8	453.5	445.3	439.7	437.0	434.3	431.6	428.8
55°	413.0	404.8	396.6	390.9	388.1	385.2	382.2	379.3
57.5°	364.2	356.2	348.1	342.8	340.2	337.5	335.0	332.4
60°	331.9	323.8	315.8	310.5	307.7	305.0	302.2	299.4
62.5°	300.2	292.7	285.3	280.2	277.4	274.6	272.0	269.2
65°	253.6	246.3	238.9	233.9	231.2	228.5	225.7	222.9
67.5°	209.1	202.4	195.7	191.2	189.1	186.9	184.7	182.5
70°	179.5	173.9	168.2	164.3	162.1	159.9	157.7	155.5
72.5°	152.1	146.9	141.6	138.3	136.8	135.4	134.0	132.5
75°	113.8	109.7	105.7	103.1	101.7	100.4	99.2	97.9
77.5°	80.9	78.1	75.3	73.4	72.5	71.5	70.6	69.6
80°	60.9	59.3	57.6	56.6	56.2	55.8	55.5	55.1
82.5°	45.6	44.8	44.0	43.5	43.3	43.1	42.9	42.6
85°	26.0	25.7	25.6	25.4	25.2	25.0	24.9	24.7
87.5°	12.0	12.1	12.3	12.3	12.2	12.2	12.1	12.0
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: S125RDIW-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)