

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: P333213-930

Luminaire Tested: **S125DIP-S850D365U930-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333213-930  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIP-S850D365U930-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3857.6 lumens  
Efficiency: N/A  
Efficacy: 110.2 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: Semi-Direct

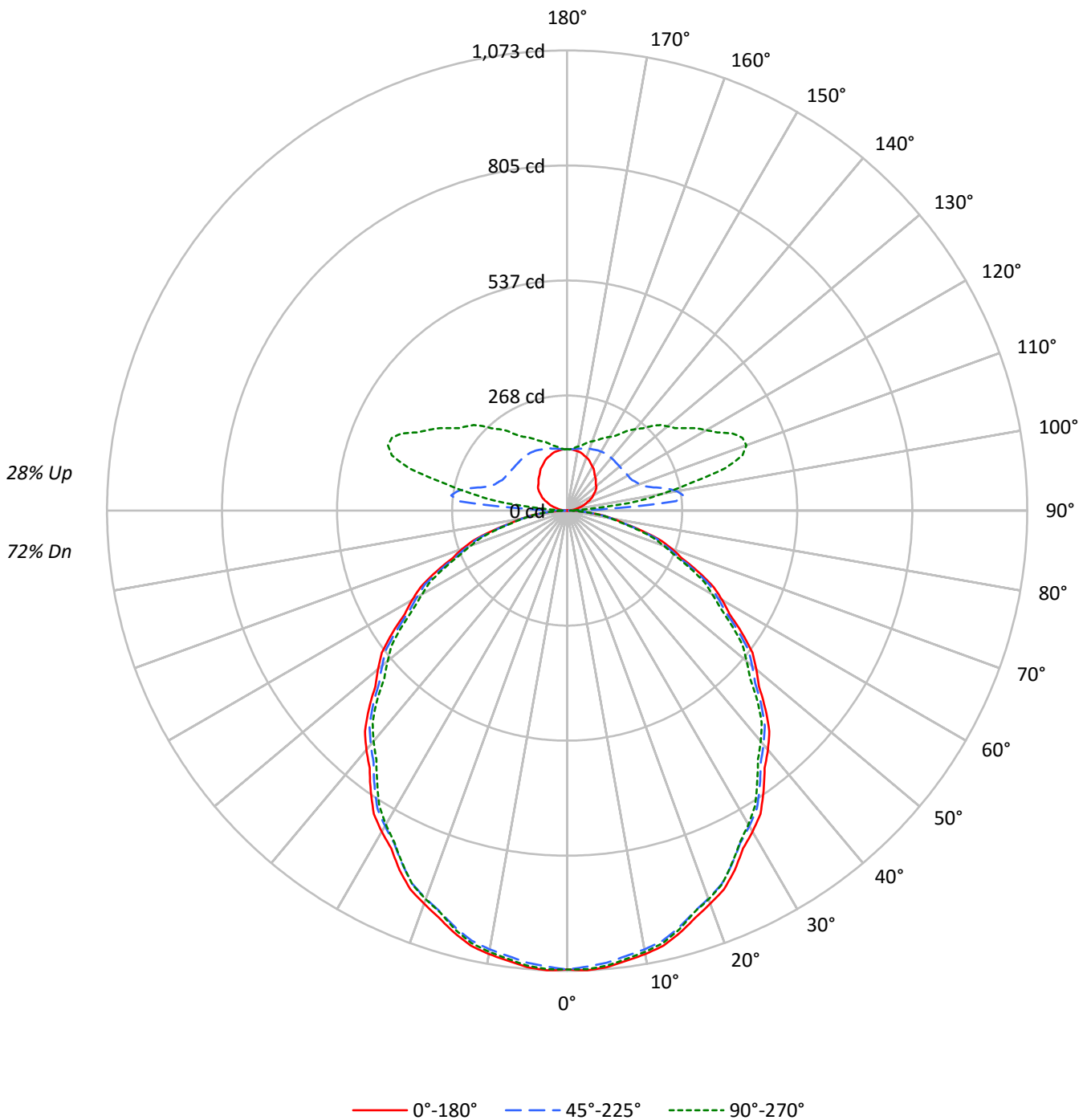
Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	112	112	112	112	107	107	107	107	96	96	96	86	86	86	77	77	77	72
1	103	98	94	90	97	93	90	86	84	81	79	75	73	71	68	66	65	61
2	93	86	79	74	88	81	76	71	74	69	65	66	63	60	59	57	54	51
3	85	75	68	62	81	72	65	59	65	59	55	59	54	50	53	49	46	43
4	78	67	59	52	74	64	56	50	58	52	47	52	47	43	47	43	40	37
5	72	60	51	45	68	57	49	43	52	45	40	47	42	38	42	38	35	32
6	66	54	45	39	63	51	43	38	47	40	35	42	37	33	38	34	31	28
7	61	49	40	34	58	46	39	33	42	36	31	39	33	29	35	31	27	25
8	57	44	36	31	54	42	35	30	39	32	28	35	30	26	32	28	24	22
9	53	40	33	27	50	39	32	27	36	29	25	33	27	24	30	25	22	20
10	50	37	30	25	47	36	29	24	33	27	23	30	25	21	28	23	20	18

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

	0°	45°	90°
0°	6912	6912	6912
5°	6928	6862	6906
10°	6885	6813	6852
15°	6811	6731	6760
20°	6704	6616	6628
25°	6589	6480	6475
30°	6447	6334	6302
35°	6296	6176	6089
40°	6139	6004	5918
45°	5971	5847	5731
50°	5785	5657	5488
55°	5606	5444	5291
60°	5391	5227	5043
65°	5136	4968	4800
70°	4893	4670	4509
75°	4457	4312	4162
80°	3968	3905	3812
85°	3453	3520	3320



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.9	2.6
10°-20°	285.1	7.4
20°-30°	420.9	10.9
30°-40°	491.1	12.7
40°-50°	493.3	12.8
50°-60°	433.0	11.2
60°-70°	322.6	8.4
70°-80°	184.5	4.8
80°-90°	54.5	1.4
90°-100°	103.6	2.7
100°-110°	222.7	5.8
110°-120°	209.0	5.4
120°-130°	169.4	4.4
130°-140°	135.9	3.5
140°-150°	102.6	2.7
150°-160°	72.2	1.9
160°-170°	42.6	1.1
170°-180°	13.8	0.4
0°-30°	806.9	20.9
0°-40°	1298.0	33.6
0°-60°	2224.3	57.7
0°-90°	2785.9	72.2
90°-120°	535.3	13.9
90°-150°	943.1	24.4
90°-180°	1072.0	27.8
0°-180°	3857.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1069	1066	1058	1066	1065	101
15°	1019	1016	1007	1011	1011	287
25°	925	920	909	911	909	425
35°	798	795	783	779	772	499
45°	654	650	640	630	628	504
55°	498	495	484	476	470	444
65°	336	334	325	318	314	333
75°	179	177	173	170	167	190
85°	47	47	48	46	45	52
90°	0	3	5	6	7	3
95°	10	28	255	116	68	10
105°	32	46	209	411	382	34
115°	58	70	168	362	425	57
125°	81	94	161	288	335	72
135°	94	114	160	241	278	73
145°	110	126	160	200	220	69
155°	126	135	156	176	184	58
165°	137	141	150	159	161	39
175°	143	143	144	146	145	14
180°	143	143	143	143	143	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2
2.5°	1073.0	1072.5	1072.1	1071.6	1071.1	1070.2	1068.7	1067.2	1065.7	1064.2	1065.7
5°	1068.6	1068.2	1067.8	1067.5	1067.1	1065.9	1064.0	1062.2	1060.3	1058.4	1060.1
7.5°	1058.7	1058.4	1058.0	1057.6	1057.3	1056.1	1053.9	1051.9	1049.9	1047.7	1049.4
10°	1049.9	1049.6	1049.2	1048.8	1048.5	1047.3	1045.1	1043.1	1041.1	1038.9	1040.5
12.5°	1039.1	1038.4	1037.8	1037.1	1036.4	1035.1	1033.2	1031.3	1029.3	1027.4	1028.7
15°	1018.6	1018.1	1017.5	1016.9	1016.4	1015.0	1013.0	1010.9	1008.9	1006.7	1007.7
17.5°	995.1	994.3	993.4	992.6	991.8	990.3	988.1	986.0	983.8	981.7	982.8
20°	975.4	975.1	974.7	974.3	974.0	972.5	970.0	967.6	965.2	962.7	964.1
22.5°	955.8	955.1	954.5	953.7	953.1	951.6	949.3	947.0	944.7	942.4	943.3
25°	924.6	923.7	922.8	921.8	920.9	919.2	916.7	914.3	911.8	909.4	909.8
27.5°	888.2	887.7	887.1	886.6	886.0	884.4	881.9	879.4	876.9	874.3	874.4
30°	864.5	864.0	863.4	862.8	862.3	860.5	857.8	854.9	852.1	849.3	848.9
32.5°	838.8	837.9	837.1	836.2	835.4	833.6	831.1	828.6	826.1	823.5	822.9
35°	798.5	797.7	797.0	796.2	795.5	793.8	791.2	788.5	785.9	783.3	782.3
37.5°	756.7	755.7	754.7	753.8	752.8	751.1	748.7	746.2	743.7	741.3	739.8
40°	728.2	727.2	726.4	725.4	724.4	722.7	720.0	717.4	714.8	712.1	710.5
42.5°	697.7	696.9	696.1	695.4	694.6	692.8	690.2	687.5	684.9	682.3	680.8
45°	653.7	652.9	652.2	651.4	650.7	649.1	646.9	644.7	642.4	640.2	637.9
47.5°	606.3	606.3	606.3	606.3	606.4	605.1	602.3	599.7	597.0	594.3	591.9
50°	575.8	575.2	574.6	574.1	573.6	572.1	569.9	567.6	565.3	563.0	560.6
52.5°	544.6	544.2	543.8	543.4	543.0	541.5	539.2	536.7	534.3	531.9	529.8
55°	497.9	497.3	496.8	496.2	495.6	494.0	491.4	488.8	486.1	483.5	481.8
57.5°	448.6	448.3	448.0	447.7	447.4	446.1	443.9	441.7	439.4	437.2	435.0
60°	417.4	416.7	416.0	415.2	414.4	413.0	410.9	408.9	406.8	404.7	402.8
62.5°	384.9	384.3	383.8	383.1	382.5	381.3	379.6	377.8	376.0	374.2	372.3
65°	336.1	335.7	335.4	335.0	334.7	333.5	331.3	329.3	327.2	325.1	323.4
67.5°	288.9	288.1	287.3	286.5	285.8	284.5	283.1	281.5	280.0	278.4	277.0
70°	259.1	258.1	257.2	256.2	255.4	254.0	252.3	250.6	248.9	247.3	246.1
72.5°	226.6	225.9	225.3	224.7	224.0	223.1	222.1	220.9	219.9	218.8	217.5
75°	178.6	178.3	177.9	177.6	177.2	176.5	175.5	174.6	173.7	172.8	172.2
77.5°	134.4	134.3	134.2	134.0	133.9	133.5	133.0	132.5	131.9	131.4	131.1
80°	106.7	106.7	106.7	106.7	106.7	106.5	106.2	105.7	105.3	105.0	104.8
82.5°	82.3	82.0	81.7	81.4	81.1	80.9	80.8	80.8	80.7	80.6	80.3
85°	46.6	46.8	47.0	47.1	47.3	47.5	47.5	47.5	47.5	47.5	47.2
87.5°	18.3	18.4	18.5	18.7	18.8	18.8	18.7	18.7	18.6	18.5	18.6
90°	0.3	0.6	1.1	1.7	2.3	2.9	3.2	3.8	4.0	4.6	4.9
92.5°	3.5	4.2	6.7	10.3	15.2	23.6	39.4	65.7	94.4	92.9	75.2
95°	9.5	9.8	12.1	15.2	21.6	34.6	65.4	128.8	208.3	255.3	249.8
97.5°	15.8	16.1	17.8	21.0	26.7	36.0	56.3	102.8	186.1	272.6	316.1
100°	20.1	20.7	21.9	25.0	30.6	39.2	55.9	93.4	166.0	260.2	332.2
102.5°	25.0	25.4	26.3	29.7	34.7	43.1	58.0	89.4	150.7	238.3	322.5
105°	32.5	32.5	34.0	36.9	41.5	49.6	62.2	87.9	136.0	208.9	291.6
107.5°	39.9	40.5	41.9	44.3	49.1	56.3	68.6	90.5	129.8	188.7	260.0
110°	45.2	45.8	47.0	49.6	53.9	61.4	73.2	93.1	127.9	179.2	242.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	50.5	51.1	52.0	54.6	58.9	66.2	77.5	96.3	127.9	173.7	228.7
115°	58.2	58.8	59.7	62.2	66.5	73.8	84.5	101.1	128.8	167.7	214.1
117.5°	65.1	66.0	66.9	69.5	74.4	81.4	91.5	106.6	130.7	164.8	205.4
120°	69.7	70.6	71.7	74.4	79.2	86.4	96.5	110.4	132.6	163.4	200.6
122.5°	74.6	75.2	76.1	78.8	84.1	91.3	101.3	114.5	134.1	162.2	196.4
125°	80.7	81.3	82.7	85.3	90.7	98.2	107.8	120.2	136.9	160.8	190.8
127.5°	85.4	86.3	88.1	91.5	97.3	104.8	113.9	125.3	139.9	160.1	185.6
130°	88.5	89.4	91.6	95.4	101.4	108.9	117.8	128.8	141.8	159.6	182.1
132.5°	90.7	91.9	94.7	98.8	105.1	112.6	121.6	131.8	143.8	159.6	179.4
135°	94.5	95.6	99.1	103.7	109.8	117.6	126.5	136.0	146.7	159.6	176.0
137.5°	99.2	100.1	103.3	107.9	113.9	121.9	130.0	139.1	149.3	160.0	173.1
140°	102.0	102.9	106.3	111.0	116.4	124.2	132.6	141.2	150.4	160.2	171.7
142.5°	105.3	105.8	109.1	113.7	119.0	126.3	134.1	142.4	151.1	160.5	170.6
145°	110.1	110.6	113.5	117.6	122.8	129.4	136.9	144.1	151.8	160.2	168.8
147.5°	115.1	115.4	118.0	121.7	126.2	132.0	138.6	145.1	152.1	159.5	167.1
150°	118.1	118.7	120.7	124.5	128.5	133.4	139.7	145.8	152.1	158.7	165.7
152.5°	121.4	121.7	123.5	126.8	130.6	135.0	140.9	146.3	151.9	157.8	164.0
155°	125.6	125.6	127.3	130.2	133.1	137.1	142.0	146.7	151.2	156.2	161.3
157.5°	129.5	129.4	130.8	133.2	135.7	138.8	143.0	146.9	150.5	154.4	158.8
160°	132.0	131.7	132.8	134.9	137.1	139.7	143.5	146.9	149.9	153.3	156.8
162.5°	134.0	133.8	134.9	136.7	138.5	140.6	144.0	146.8	149.1	151.9	154.9
165°	137.1	136.6	137.5	138.8	140.1	141.8	144.1	146.3	148.1	149.9	152.1
167.5°	139.3	138.9	139.5	140.2	141.0	142.2	144.1	145.7	146.5	147.8	149.4
170°	140.6	140.3	140.6	141.2	141.8	142.6	144.1	145.2	145.8	146.7	147.8
172.5°	141.5	141.0	141.3	141.9	142.2	142.6	143.8	144.8	144.9	145.3	146.2
175°	142.6	142.0	142.4	142.6	142.6	142.6	143.5	144.1	143.8	143.8	144.1
177.5°	143.2	142.7	142.7	142.9	142.7	142.7	143.2	143.4	142.9	142.9	143.2
180°	142.9	142.9	142.9	142.9	142.9	142.9	142.9	142.9	142.9	142.9	142.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2
2.5°	1067.2	1068.7	1070.2	1070.9	1070.7	1070.6	1070.4	1070.2
5°	1061.8	1063.5	1065.2	1065.9	1065.8	1065.6	1065.4	1065.2
7.5°	1051.1	1052.7	1054.3	1055.1	1054.9	1054.8	1054.5	1054.3
10°	1042.0	1043.5	1045.0	1045.6	1045.5	1045.2	1045.1	1044.9
12.5°	1029.8	1031.0	1032.3	1032.8	1032.8	1032.7	1032.7	1032.7
15°	1008.7	1009.6	1010.6	1011.0	1011.0	1011.0	1011.0	1011.0
17.5°	984.1	985.2	986.3	986.5	985.5	984.6	983.7	982.8
20°	965.4	966.7	968.0	968.2	967.3	966.3	965.4	964.4
22.5°	944.1	945.0	945.9	946.0	945.3	944.7	944.0	943.5
25°	910.1	910.5	910.9	910.8	910.3	909.7	909.1	908.6
27.5°	874.5	874.6	874.7	874.4	873.8	873.3	872.7	872.1
30°	848.6	848.2	847.7	847.3	846.8	846.2	845.6	845.1
32.5°	822.1	821.5	820.8	819.9	819.0	817.9	816.9	816.0
35°	781.4	780.4	779.5	778.3	776.7	775.3	773.7	772.3
37.5°	738.4	737.0	735.6	734.5	733.7	732.8	732.0	731.1
40°	708.7	707.0	705.3	704.2	703.6	703.1	702.5	702.0
42.5°	679.2	677.7	676.1	674.9	674.1	673.2	672.3	671.5
45°	635.6	633.3	631.1	629.7	629.2	628.6	628.0	627.5
47.5°	589.6	587.3	585.1	583.3	582.0	580.7	579.3	578.0
50°	558.2	555.7	553.3	551.4	550.1	548.8	547.5	546.2
52.5°	527.7	525.5	523.3	521.5	520.1	518.6	517.1	515.7
55°	480.1	478.4	476.7	475.2	473.9	472.5	471.2	469.9
57.5°	432.9	430.7	428.5	427.1	426.3	425.7	424.9	424.2
60°	401.0	399.1	397.2	395.6	394.3	393.0	391.7	390.4
62.5°	370.2	368.2	366.2	364.6	363.6	362.6	361.6	360.5
65°	321.8	320.1	318.4	317.2	316.4	315.7	314.9	314.1
67.5°	275.6	274.1	272.7	271.7	271.3	270.8	270.4	269.9
70°	245.0	243.9	242.7	241.8	241.0	240.3	239.5	238.8
72.5°	216.2	215.0	213.7	212.6	211.9	211.2	210.4	209.6
75°	171.6	171.0	170.5	169.8	169.1	168.3	167.5	166.8
77.5°	130.8	130.4	130.0	129.6	129.1	128.6	128.1	127.5
80°	104.6	104.4	104.3	104.0	103.6	103.2	102.8	102.5
82.5°	79.9	79.6	79.2	79.1	79.0	78.9	78.8	78.8
85°	47.0	46.9	46.6	46.4	46.0	45.7	45.2	44.8
87.5°	18.7	18.7	18.8	18.8	18.4	18.1	17.9	17.6
90°	5.2	5.5	5.8	6.4	6.4	6.4	6.6	6.6
92.5°	51.0	37.0	27.9	23.6	20.0	19.2	18.8	18.3
95°	207.2	163.4	127.9	103.7	83.2	74.6	72.3	67.8
97.5°	308.5	277.9	243.3	209.6	191.8	175.7	167.4	163.6
100°	354.4	340.3	310.6	280.6	260.7	240.0	229.3	224.8
102.5°	369.8	378.5	364.4	344.1	322.8	308.0	296.4	293.0
105°	360.8	400.2	412.9	409.8	400.5	391.0	385.2	381.8
107.5°	328.2	380.9	413.4	428.5	433.2	433.2	431.2	428.9
110°	304.3	359.1	399.7	424.1	437.1	442.5	444.6	444.6





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CATALOG NUMBER: S125DIP-S850D365U930-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	285.4	337.4	378.5	407.3	426.2	435.7	440.7	442.8
115°	261.6	306.3	345.8	377.2	399.7	413.4	421.5	425.3
117.5°	246.3	284.8	318.8	347.6	370.1	384.4	392.4	394.7
120°	238.0	272.6	304.3	329.6	351.0	364.8	372.6	374.9
122.5°	231.8	263.8	292.0	315.8	334.8	347.5	355.3	357.3
125°	222.7	252.1	277.2	297.9	314.1	325.9	332.2	335.1
127.5°	213.5	240.9	264.3	283.7	298.4	308.8	314.8	316.1
130°	207.7	233.1	255.6	274.3	288.7	298.2	304.0	305.7
132.5°	201.9	225.8	246.1	264.2	278.6	288.0	293.3	295.3
135°	194.5	214.3	232.8	249.2	262.0	271.4	276.6	278.3
137.5°	188.2	204.2	219.6	233.5	244.8	253.5	258.3	260.2
140°	184.7	198.2	211.5	223.6	234.2	241.7	246.1	247.5
142.5°	181.7	193.1	204.6	215.1	224.1	230.5	234.6	235.8
145°	177.8	186.7	195.7	203.4	210.3	215.2	218.4	219.6
147.5°	174.1	181.3	188.3	194.1	199.6	203.5	205.3	205.9
150°	172.0	178.4	183.8	189.0	193.3	196.8	198.0	198.2
152.5°	169.7	175.4	180.3	184.4	188.0	190.8	191.9	192.2
155°	166.2	170.9	174.9	178.1	180.9	183.0	183.8	184.1
157.5°	162.8	166.6	169.7	172.2	174.5	176.1	176.9	176.8
160°	160.5	163.4	166.2	168.3	170.3	171.7	172.3	172.0
162.5°	157.9	160.6	163.1	164.9	166.4	167.5	167.7	167.6
165°	154.4	156.5	158.2	159.6	160.8	161.3	161.3	161.3
167.5°	151.1	152.5	153.8	154.8	155.4	155.9	155.6	155.6
170°	149.3	150.1	151.0	151.6	152.1	152.5	152.5	152.1
172.5°	147.2	148.1	148.7	149.0	149.1	149.7	149.2	148.9
175°	145.0	145.0	145.5	145.5	145.5	145.8	145.2	145.0
177.5°	143.4	143.6	143.6	143.6	143.4	143.6	142.9	142.9
180°	142.9	142.9	142.9	142.9	142.9	142.9	142.9	142.9

(END OF REPORT)