

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: P331399-930

Luminaire Tested: **S122DIP-S865D725U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331399-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DIP-S865D725U930-4F0-1E-UDD-F
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 865 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 725 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5226.5 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.3
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

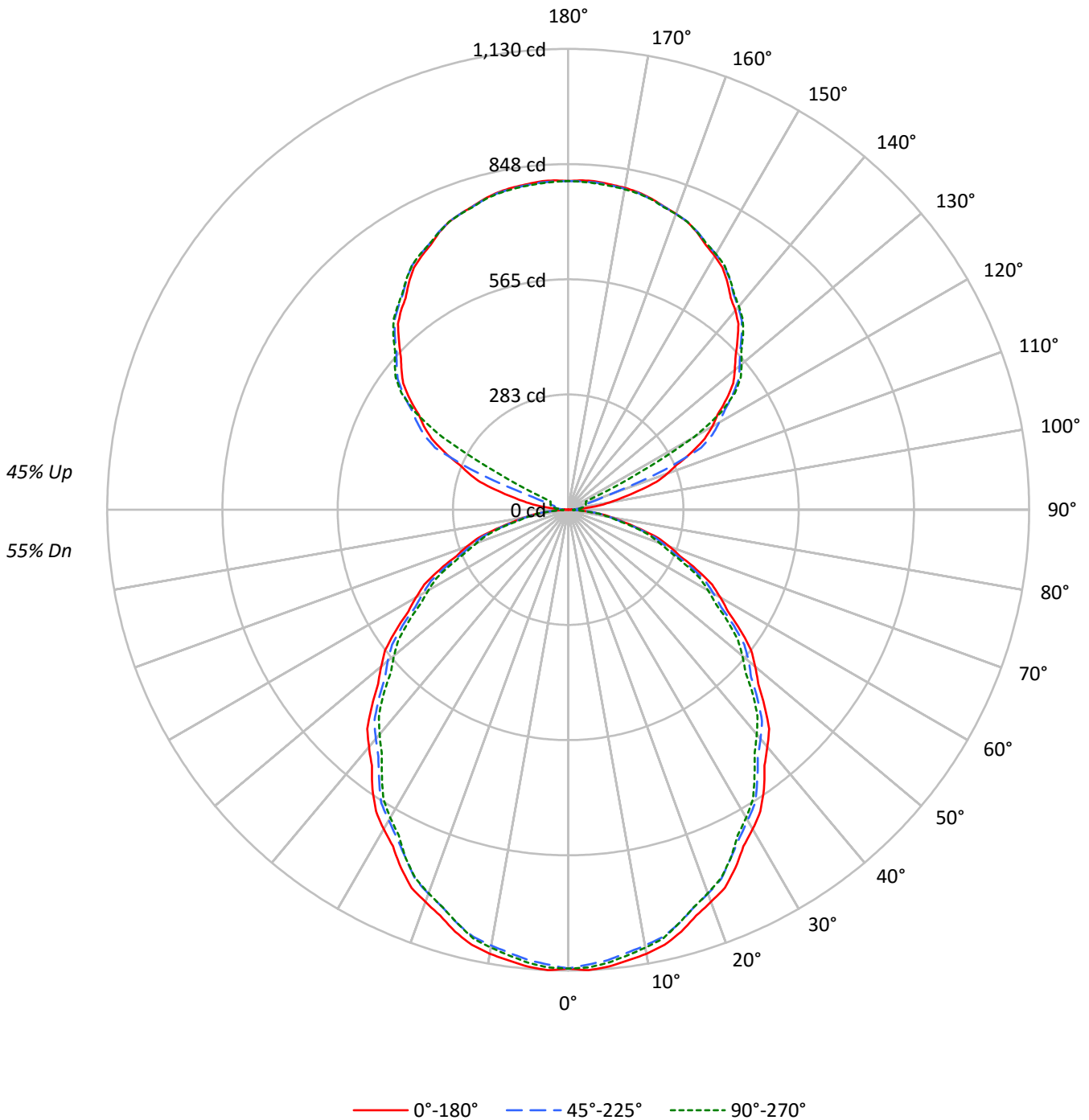
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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									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	101	101	101	101	86	86	86	73	73	73	61	61	61	55																				
1	99	94	91	87	92	88	84	81	75	73	71	64	62	61	54	52	51	46																				
2	90	83	76	71	83	77	71	67	66	62	59	56	53	51	47	45	43	39																				
3	82	73	65	59	76	68	61	56	58	53	49	50	46	43	42	39	37	33																				
4	75	64	56	50	69	60	53	47	52	46	42	44	40	37	37	34	32	28																				
5	69	57	49	43	64	54	46	41	46	41	36	40	35	32	34	30	28	24																				
6	64	51	43	37	59	48	41	35	42	36	32	36	31	28	31	27	24	21																				
7	59	46	38	33	54	44	36	31	38	32	28	33	28	25	28	24	22	19																				
8	55	42	34	29	51	40	33	28	35	29	25	30	25	22	26	22	19	17																				
9	51	39	31	26	47	36	29	25	32	26	22	28	23	20	24	20	17	15																				
10	48	35	28	23	44	33	27	22	29	24	20	26	21	18	22	18	16	14																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18166	18166	18166
5°	18235	17973	18078
10°	18126	17790	17879
15°	17904	17560	17541
20°	17584	17213	17194
25°	17268	16787	16787
30°	16861	16397	16257
35°	16484	15928	15693
40°	16008	15460	15163
45°	15536	14995	14625
50°	15028	14511	13996
55°	14494	13948	13430
60°	13905	13275	12788
65°	13268	12607	12027
70°	12463	11797	11235
75°	11335	10861	10593
80°	10060	9754	9252
85°	8225	7818	7003



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.8	2.0
10°-20°	297.7	5.7
20°-30°	437.6	8.4
30°-40°	508.3	9.7
40°-50°	507.7	9.7
50°-60°	442.8	8.5
60°-70°	327.4	6.3
70°-80°	185.4	3.5
80°-90°	51.8	1.0
90°-100°	26.9	0.5
100°-110°	98.6	1.9
110°-120°	263.5	5.0
120°-130°	435.0	8.3
130°-140°	462.7	8.9
140°-150°	430.0	8.2
150°-160°	345.7	6.6
160°-170°	222.8	4.3
170°-180°	76.7	1.5
0°-30°	841.1	16.1
0°-40°	1349.3	25.8
0°-60°	2299.8	44.0
0°-90°	2864.5	54.8
90°-120°	389.0	7.4
90°-150°	1716.8	32.8
90°-180°	2362.0	45.2
0°-180°	5226.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1125	1125	1125	1125	1125	
5°	1125	1120	1109	1117	1115	107
15°	1071	1064	1050	1054	1049	301
25°	969	960	942	944	942	446
35°	836	825	808	802	796	522
45°	680	672	657	645	640	525
55°	515	508	496	483	477	460
65°	347	341	330	320	315	343
75°	182	179	174	168	170	194
85°	44	43	42	39	38	51
90°	1	7	12	14	16	4
95°	38	20	23	26	25	46
105°	177	185	36	42	44	189
115°	335	346	360	102	48	330
125°	474	482	493	497	499	423
135°	587	596	601	607	606	453
145°	681	681	690	694	691	426
155°	749	745	751	754	750	345
165°	790	786	788	792	788	223
175°	808	804	805	808	803	77
180°	806	806	806	806	806	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1
2.5°	1130.3	1129.4	1128.4	1127.5	1126.5	1124.9	1122.8	1120.7	1118.6	1116.5	1118.4
5°	1125.1	1124.1	1123.2	1122.3	1121.3	1119.5	1116.9	1114.2	1111.6	1108.9	1110.8
7.5°	1115.2	1113.7	1112.2	1110.7	1109.2	1107.1	1104.4	1101.7	1099.0	1096.3	1098.3
10°	1105.6	1104.0	1102.3	1100.6	1098.9	1096.7	1093.7	1090.9	1088.0	1085.1	1087.0
12.5°	1092.7	1091.2	1089.7	1088.2	1086.7	1084.5	1081.7	1078.7	1075.9	1073.0	1074.3
15°	1071.1	1069.6	1068.1	1066.7	1065.3	1063.0	1059.9	1056.7	1053.6	1050.5	1051.4
17.5°	1043.3	1041.9	1040.5	1039.0	1037.5	1035.3	1032.1	1028.9	1025.7	1022.5	1023.7
20°	1023.4	1022.0	1020.6	1019.1	1017.7	1015.3	1011.9	1008.5	1005.2	1001.8	1002.5
22.5°	1003.6	1001.5	999.5	997.4	995.5	992.9	989.7	986.5	983.3	980.2	980.3
25°	969.3	967.4	965.5	963.6	961.6	958.6	954.6	950.5	946.4	942.3	942.8
27.5°	930.4	928.7	926.9	925.2	923.5	921.0	917.8	914.5	911.3	908.1	907.4
30°	904.4	902.5	900.6	898.7	896.7	894.0	890.4	886.8	883.1	879.5	878.8
32.5°	876.8	875.2	873.7	872.1	870.6	867.9	864.1	860.3	856.6	852.7	851.4
35°	836.3	833.9	831.4	829.1	826.6	823.5	819.7	815.9	812.0	808.1	806.7
37.5°	790.6	788.5	786.4	784.2	782.2	779.2	775.3	771.5	767.6	763.8	762.0
40°	759.5	757.6	755.6	753.7	751.8	748.9	745.0	741.2	737.4	733.5	731.3
42.5°	729.2	727.2	725.3	723.4	721.5	718.6	714.8	710.9	707.0	703.2	700.8
45°	680.4	678.8	677.1	675.5	673.8	671.1	667.5	663.9	660.3	656.7	654.0
47.5°	632.0	630.5	628.8	627.3	625.7	623.0	619.2	615.5	611.7	608.0	605.2
50°	598.3	597.0	595.9	594.7	593.5	591.2	587.8	584.4	581.1	577.7	574.4
52.5°	565.4	563.8	562.2	560.6	559.1	556.7	553.5	550.3	547.1	544.0	541.2
55°	514.9	513.6	512.1	510.6	509.2	507.0	504.2	501.2	498.4	495.5	492.6
57.5°	464.3	463.2	462.0	460.9	459.7	457.5	454.4	451.2	448.0	444.8	442.1
60°	430.6	429.6	428.7	427.7	426.7	424.6	421.2	417.8	414.5	411.1	408.5
62.5°	397.7	396.2	394.6	393.1	391.5	389.5	386.9	384.3	381.6	379.1	376.7
65°	347.3	345.8	344.4	342.9	341.5	339.6	337.2	334.8	332.4	330.0	327.8
67.5°	296.0	294.8	293.7	292.5	291.4	289.8	287.6	285.4	283.2	281.0	279.4
70°	264.0	263.0	262.0	261.1	260.2	258.5	256.4	254.2	252.1	249.9	248.3
72.5°	231.1	230.2	229.2	228.2	227.2	226.1	224.7	223.3	221.8	220.5	218.8
75°	181.7	181.2	180.8	180.3	179.9	179.0	177.8	176.6	175.4	174.1	172.8
77.5°	137.6	136.8	136.0	135.2	134.4	133.7	133.2	132.7	132.2	131.8	131.0
80°	108.2	107.9	107.7	107.5	107.2	106.9	106.4	105.9	105.4	104.9	104.2
82.5°	80.5	80.5	80.4	80.3	80.3	80.1	79.8	79.6	79.2	79.0	78.0
85°	44.4	44.1	43.9	43.6	43.4	43.1	42.9	42.6	42.4	42.2	41.5
87.5°	15.7	15.6	15.5	15.4	15.3	15.2	15.0	14.8	14.6	14.4	14.0
90°	0.6	2.0	3.4	4.9	6.3	7.5	8.6	9.6	10.6	11.7	12.3
92.5°	11.7	11.7	11.5	11.4	11.3	11.5	12.0	12.5	13.0	13.5	13.9
95°	37.9	33.7	29.4	25.1	20.8	19.1	20.1	21.0	21.9	22.7	23.4
97.5°	75.3	63.2	51.1	39.1	27.0	22.0	24.1	26.3	28.4	30.4	31.0
100°	103.2	85.4	67.8	50.0	32.2	24.5	26.7	28.9	31.1	33.3	34.2
102.5°	134.0	130.3	126.5	122.8	119.0	107.9	89.4	71.0	52.6	34.2	35.5
105°	177.3	181.2	185.1	189.0	192.8	177.1	141.7	106.3	70.9	35.5	37.0
107.5°	226.7	229.8	232.9	236.0	239.2	219.6	177.1	134.7	92.2	49.8	48.3
110°	258.4	261.1	263.8	266.5	269.2	251.8	214.4	177.0	139.5	102.1	89.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	288.2	290.7	293.0	295.5	297.8	294.4	285.2	275.9	266.7	257.4	210.2
115°	335.3	337.5	339.7	341.9	344.1	346.9	350.1	353.4	356.6	359.9	299.9
117.5°	377.5	379.9	382.4	384.8	387.3	389.6	391.9	394.1	396.3	398.6	384.1
120°	408.2	410.2	412.1	414.1	416.0	418.2	420.5	422.8	425.2	427.5	429.0
122.5°	434.4	436.4	438.5	440.5	442.5	444.8	447.4	450.0	452.5	455.0	455.9
125°	474.2	475.8	477.5	479.2	480.9	483.0	485.4	487.9	490.3	492.8	493.7
127.5°	510.2	512.1	514.0	515.8	517.6	519.5	521.4	523.2	525.1	526.8	528.2
130°	533.0	535.2	537.2	539.2	541.4	543.1	544.5	545.9	547.4	548.8	550.2
132.5°	556.4	558.2	559.9	561.7	563.5	565.0	566.5	567.9	569.3	570.7	571.9
135°	586.7	588.8	590.8	593.0	595.0	596.6	597.8	598.9	600.1	601.3	602.6
137.5°	617.4	618.8	620.3	621.7	623.2	624.6	625.9	627.2	628.5	629.9	631.1
140°	637.5	638.5	639.5	640.6	641.6	642.9	644.2	645.7	647.1	648.6	649.7
142.5°	654.3	655.2	656.2	657.0	657.9	659.3	660.9	662.5	664.1	665.8	666.8
145°	680.6	680.4	680.4	680.2	680.1	681.1	683.3	685.5	687.7	689.9	690.9
147.5°	703.6	703.1	702.6	702.1	701.6	702.5	704.7	706.8	709.0	711.2	711.8
150°	718.5	717.6	716.7	715.8	714.9	715.5	717.5	719.6	721.7	723.7	724.6
152.5°	731.1	730.1	729.1	728.1	727.1	727.6	729.5	731.5	733.4	735.4	736.2
155°	749.4	748.3	747.1	745.9	744.8	744.9	746.5	748.0	749.6	751.1	752.0
157.5°	763.8	762.8	761.8	760.8	759.9	759.9	761.0	762.1	763.1	764.3	765.2
160°	772.2	771.4	770.6	769.8	769.1	769.1	769.8	770.6	771.4	772.2	773.0
162.5°	779.7	778.9	778.1	777.3	776.5	776.5	777.1	777.8	778.5	779.2	780.1
165°	789.7	788.9	788.1	787.3	786.5	786.4	786.8	787.2	787.5	787.9	788.8
167.5°	797.1	796.4	795.6	794.8	794.0	793.8	794.2	794.5	794.9	795.2	796.1
170°	801.4	800.5	799.8	799.0	798.3	797.9	798.3	798.5	798.7	799.0	799.9
172.5°	804.1	803.3	802.6	801.8	801.0	800.8	801.0	801.3	801.5	801.8	802.7
175°	807.7	806.8	805.9	805.0	804.1	803.8	804.0	804.3	804.5	804.9	805.8
177.5°	808.4	807.6	806.9	806.2	805.4	805.1	805.2	805.4	805.4	805.5	806.2
180°	806.0	806.0	806.0	806.0	806.0	806.0	806.0	806.0	806.0	806.0	806.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1
2.5°	1120.3	1122.3	1124.1	1124.9	1124.5	1124.1	1123.8	1123.4
5°	1112.7	1114.7	1116.6	1117.3	1116.9	1116.4	1115.9	1115.4
7.5°	1100.2	1102.1	1104.1	1104.7	1104.2	1103.7	1103.2	1102.6
10°	1088.9	1090.9	1092.8	1093.4	1092.7	1091.9	1091.2	1090.5
12.5°	1075.7	1077.0	1078.4	1078.8	1078.2	1077.7	1077.2	1076.7
15°	1052.4	1053.4	1054.3	1054.2	1053.0	1051.8	1050.6	1049.4
17.5°	1024.7	1025.9	1027.0	1027.0	1025.8	1024.7	1023.5	1022.4
20°	1003.2	1004.0	1004.7	1004.5	1003.6	1002.7	1001.7	1000.7
22.5°	980.5	980.6	980.7	980.6	979.9	979.3	978.8	978.2
25°	943.3	943.7	944.2	944.2	943.7	943.3	942.8	942.3
27.5°	906.7	906.0	905.2	904.3	903.1	902.0	900.8	899.7
30°	878.1	877.4	876.7	875.8	874.9	873.9	872.9	872.0
32.5°	850.1	848.8	847.5	846.4	845.5	844.5	843.5	842.5
35°	805.3	803.8	802.4	801.0	799.9	798.7	797.4	796.2
37.5°	760.3	758.5	756.7	755.2	754.1	752.9	751.8	750.6
40°	729.2	727.0	724.9	723.3	722.4	721.4	720.4	719.4
42.5°	698.5	696.1	693.8	691.9	690.6	689.3	687.9	686.6
45°	651.4	648.7	646.1	644.3	643.4	642.4	641.4	640.5
47.5°	602.4	599.7	596.9	594.8	593.4	592.0	590.6	589.2
50°	571.0	567.6	564.3	562.0	560.8	559.5	558.4	557.2
52.5°	538.3	535.6	532.8	530.6	529.0	527.4	525.9	524.2
55°	489.8	486.8	484.0	481.9	480.7	479.5	478.3	477.1
57.5°	439.2	436.3	433.5	431.6	430.7	429.8	428.9	428.0
60°	405.9	403.2	400.6	398.8	398.1	397.4	396.6	396.0
62.5°	374.1	371.7	369.2	367.6	366.6	365.7	364.8	363.9
65°	325.6	323.5	321.3	319.6	318.5	317.2	316.0	314.8
67.5°	277.7	276.0	274.3	273.0	272.1	271.1	270.1	269.1
70°	246.5	244.8	243.2	241.8	240.9	239.9	239.0	238.0
72.5°	217.1	215.4	213.8	212.5	211.7	211.0	210.2	209.5
75°	171.3	169.8	168.4	168.0	168.4	168.9	169.3	169.8
77.5°	130.4	129.6	128.9	128.2	127.5	126.9	126.2	125.5
80°	103.5	102.8	102.1	101.4	100.9	100.5	100.0	99.5
82.5°	77.1	76.2	75.3	74.8	74.7	74.6	74.5	74.4
85°	40.8	40.0	39.3	38.8	38.6	38.3	38.1	37.8
87.5°	13.5	13.1	12.6	12.4	12.2	12.1	12.0	11.8
90°	13.0	13.6	14.3	14.7	15.0	15.2	15.5	15.7
92.5°	14.2	14.5	14.8	15.2	15.2	15.4	15.6	15.7
95°	24.1	24.7	25.4	25.6	25.4	25.4	25.2	25.1
97.5°	31.5	32.0	32.5	32.9	33.0	33.2	33.3	33.5
100°	35.3	36.4	37.4	38.1	38.3	38.6	38.8	39.1
102.5°	36.9	38.2	39.5	40.4	40.8	41.2	41.5	41.9
105°	38.4	39.9	41.3	42.2	42.8	43.3	43.8	44.4
107.5°	46.9	45.4	44.0	43.5	44.0	44.6	45.1	45.6
110°	76.1	63.2	50.2	44.0	44.5	45.0	45.6	46.1



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CATALOG NUMBER: S122DIP-S865D725U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	162.9	115.6	68.3	44.8	45.3	45.7	46.1	46.6
115°	239.9	179.9	119.8	85.1	75.8	66.4	57.2	47.9
117.5°	369.6	355.0	340.5	317.9	287.2	256.6	225.9	195.3
120°	430.6	432.2	433.7	425.7	408.2	390.8	373.2	355.8
122.5°	456.9	457.8	458.8	457.5	454.1	450.7	447.4	443.9
125°	494.6	495.5	496.4	497.1	497.5	497.9	498.2	498.6
127.5°	529.5	530.8	532.1	532.9	533.0	533.0	533.1	533.2
130°	551.6	553.1	554.5	555.1	555.1	554.9	554.7	554.6
132.5°	573.2	574.4	575.6	576.2	576.0	575.9	575.8	575.6
135°	603.9	605.2	606.5	607.0	606.7	606.5	606.2	605.9
137.5°	632.4	633.7	635.0	635.4	635.0	634.5	634.1	633.6
140°	650.9	652.0	653.2	653.5	652.8	652.2	651.5	650.9
142.5°	667.9	669.0	670.0	670.3	669.6	669.0	668.3	667.6
145°	691.8	692.7	693.6	693.7	693.1	692.4	691.8	691.1
147.5°	712.5	713.2	713.9	714.0	713.4	712.8	712.3	711.8
150°	725.3	726.1	726.8	726.9	726.3	725.6	725.0	724.3
152.5°	736.9	737.8	738.6	738.5	737.7	736.8	736.0	735.1
155°	752.8	753.5	754.3	754.2	753.1	752.1	751.1	750.0
157.5°	766.0	766.9	767.8	767.7	766.7	765.6	764.7	763.7
160°	773.7	774.5	775.3	775.2	774.3	773.4	772.5	771.6
162.5°	780.9	781.8	782.7	782.6	781.5	780.3	779.3	778.1
165°	789.7	790.7	791.6	791.6	790.7	789.7	788.8	787.9
167.5°	797.1	798.0	798.9	798.7	797.6	796.5	795.2	794.1
170°	800.8	801.7	802.7	802.5	801.4	800.1	799.0	797.9
172.5°	803.6	804.5	805.4	805.3	804.1	803.0	801.8	800.6
175°	806.7	807.6	808.5	808.3	807.0	805.7	804.4	803.1
177.5°	807.0	807.7	808.5	808.4	807.4	806.5	805.5	804.6
180°	806.0	806.0	806.0	806.0	806.0	806.0	806.0	806.0

(END OF REPORT)