

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: P331315-940

Luminaire Tested: **SA2XXDIP-C485D925U940-4F0-1E-UDD-D**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331315-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C485D925U940-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 925 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

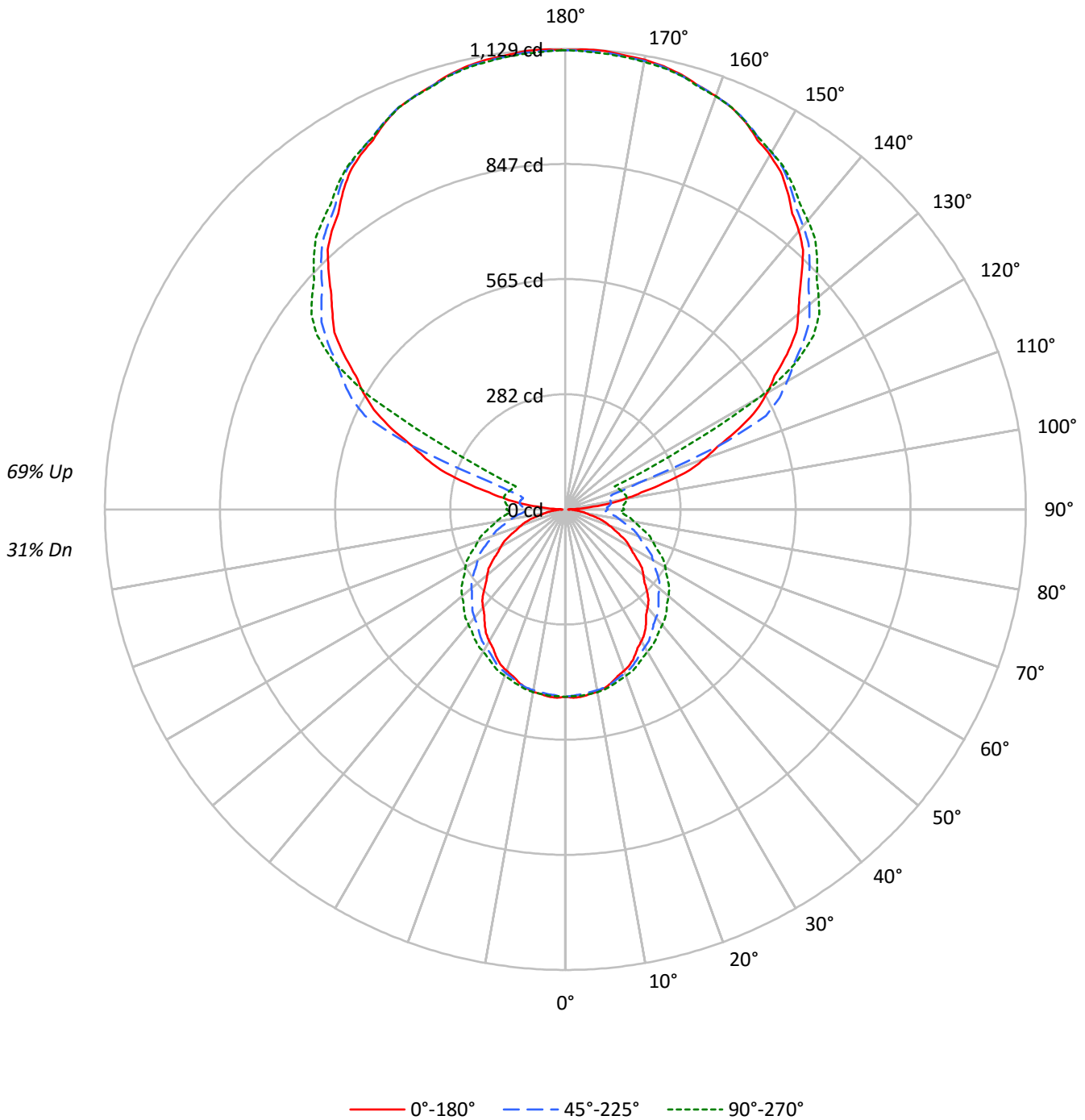
Lumens per Lamp: N/A
Luminaire Lumens: 5054.2 lumens
Efficiency: N/A
Efficacy: 113.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

Input Watts (W): 44.5
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					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	0	
RCR																						
0	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39	31	31	31	20	
1	93	88	84	80	83	79	76	72	62	60	58	47	45	44	33	32	31	24	24	24	0	
2	84	76	70	65	75	68	63	59	54	50	47	41	38	36	28	26	25	19	19	19	0	
3	76	67	59	53	68	60	54	48	47	43	39	35	32	30	25	23	21	16	16	16	0	
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	22	20	18	13	13	13	0	
5	64	52	44	38	57	47	40	35	37	32	28	28	24	22	19	17	15	12	12	12	0	
6	58	46	38	33	52	42	35	30	33	28	24	25	21	19	18	15	13	10	10	10	0	
7	54	42	34	28	48	38	31	26	30	25	21	23	19	16	16	14	12	9	9	9	0	
8	50	38	30	25	45	34	27	23	27	22	19	21	17	14	15	12	10	8	8	8	0	
9	46	34	27	22	41	31	25	20	25	20	16	19	15	13	13	11	9	7	7	7	0	
10	43	31	24	19	39	28	22	18	23	18	15	17	14	12	12	10	8	6	6	6	0	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7419	7419	7419
5°	7455	7143	7115
10°	7408	6931	6854
15°	7306	6708	6577
20°	7177	6468	6312
25°	7050	6237	6072
30°	6870	5999	5829
35°	6689	5771	5659
40°	6498	5576	5488
45°	6317	5402	5343
50°	6123	5242	5199
55°	5916	5073	5052
60°	5666	4897	4897
65°	5405	4692	4714
70°	5117	4470	4516
75°	4741	4251	4334
80°	4149	4028	4148
85°	3591	3837	4006



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.5	0.9
10°-20°	124.9	2.5
20°-30°	189.2	3.7
30°-40°	230.5	4.6
40°-50°	247.9	4.9
50°-60°	240.8	4.8
60°-70°	210.2	4.2
70°-80°	161.8	3.2
80°-90°	111.4	2.2
90°-100°	112.4	2.2
100°-110°	192.3	3.8
110°-120°	404.1	8.0
120°-130°	627.6	12.4
130°-140°	654.5	13.0
140°-150°	602.0	11.9
150°-160°	482.8	9.6
160°-170°	311.1	6.2
170°-180°	107.1	2.1
0°-30°	357.6	7.1
0°-40°	588.1	11.6
0°-60°	1076.8	21.3
0°-90°	1560.2	30.9
90°-120°	708.8	14.0
90°-150°	2592.9	51.3
90°-180°	3494.0	69.1
0°-180°	5054.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	460	460	460	460	460	
5°	461	459	455	459	458	44
15°	440	441	441	446	446	124
25°	400	404	410	418	420	184
35°	344	356	368	382	388	215
45°	282	301	324	344	351	218
55°	216	241	275	298	308	193
65°	148	181	220	246	256	147
75°	82	119	162	189	199	87
85°	24	65	108	135	145	26
90°	8	55	104	134	144	7
95°	58	65	108	136	145	69
105°	251	282	107	138	150	268
115°	471	494	542	202	134	463
125°	663	676	711	734	743	592
135°	820	833	847	868	873	633
145°	950	950	963	973	972	594
155°	1046	1040	1049	1053	1047	482
165°	1103	1098	1100	1105	1100	311
175°	1128	1123	1124	1129	1121	107
180°	1126	1126	1126	1126	1126	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	459.5	459.5	459.5	459.5	459.5	459.5	459.5	459.5	459.5	459.5	459.5
2.5°	462.2	461.8	461.5	461.1	460.7	460.1	459.3	458.5	457.7	456.8	457.4
5°	460.8	460.4	459.9	459.5	459.1	458.4	457.5	456.6	455.8	454.9	455.8
7.5°	456.7	456.4	456.1	455.8	455.6	455.0	454.3	453.7	453.0	452.3	453.3
10°	453.5	453.3	452.9	452.6	452.4	452.0	451.6	451.1	450.7	450.2	451.4
12.5°	448.2	448.3	448.4	448.4	448.4	448.3	448.0	447.6	447.3	447.0	448.2
15°	439.5	439.8	440.1	440.4	440.7	440.9	440.9	440.9	440.9	440.9	442.2
17.5°	428.4	429.0	429.6	430.3	430.9	431.4	431.9	432.3	432.8	433.3	434.6
20°	420.9	421.6	422.4	423.1	423.8	424.5	425.1	425.7	426.3	426.9	428.5
22.5°	412.9	413.8	414.6	415.4	416.3	417.1	418.0	418.8	419.6	420.5	422.1
25°	399.6	400.6	401.6	402.7	403.7	404.9	406.3	407.6	408.9	410.2	412.0
27.5°	383.6	385.3	387.0	388.7	390.3	392.0	393.5	395.1	396.6	398.2	400.5
30°	372.9	374.9	376.7	378.7	380.7	382.5	384.5	386.4	388.3	390.2	392.6
32.5°	361.2	363.4	365.5	367.7	369.9	372.1	374.3	376.7	378.9	381.2	383.9
35°	344.3	346.8	349.4	351.9	354.4	357.0	359.8	362.7	365.4	368.3	371.5
37.5°	325.9	328.9	331.7	334.7	337.5	340.8	344.5	348.0	351.7	355.3	359.0
40°	313.7	316.9	320.2	323.4	326.7	330.3	334.3	338.3	342.3	346.3	350.2
42.5°	301.9	305.2	308.4	311.7	315.0	318.9	323.5	328.1	332.7	337.2	341.4
45°	282.4	286.3	290.3	294.4	298.4	302.9	308.1	313.3	318.5	323.7	328.2
47.5°	263.1	267.4	271.8	276.1	280.4	285.7	291.8	297.8	303.9	310.0	314.8
50°	249.8	254.3	259.0	263.5	268.0	273.7	280.4	287.0	293.7	300.3	305.4
52.5°	236.9	241.7	246.6	251.5	256.3	262.2	269.2	276.2	283.2	290.3	295.3
55°	216.4	221.8	227.1	232.4	237.7	244.2	252.0	259.7	267.3	275.0	280.4
57.5°	196.2	202.2	208.2	214.2	220.3	227.1	235.0	242.8	250.7	258.5	264.3
60°	181.8	188.2	194.6	200.9	207.2	214.6	223.1	231.5	240.0	248.4	254.0
62.5°	169.0	175.6	182.3	188.9	195.5	203.0	211.3	219.8	228.3	236.7	242.6
65°	147.8	155.1	162.4	169.6	176.8	184.9	193.6	202.3	211.1	219.8	225.9
67.5°	128.4	136.0	143.6	151.1	158.7	166.9	175.9	184.9	193.8	202.7	208.8
70°	114.6	122.3	129.9	137.6	145.3	153.7	162.9	172.1	181.3	190.5	196.8
72.5°	101.7	109.7	117.6	125.6	133.5	142.1	151.4	160.7	170.0	179.2	185.6
75°	81.9	90.2	98.4	106.7	115.0	123.9	133.4	142.9	152.4	161.8	168.2
77.5°	62.8	71.4	80.1	88.7	97.5	106.6	116.2	125.8	135.5	145.1	151.4
80°	49.9	58.9	68.0	77.0	86.1	95.4	105.0	114.6	124.2	133.8	140.1
82.5°	39.3	48.2	57.1	66.0	74.9	84.3	94.0	103.7	113.4	123.2	129.4
85°	24.0	33.2	42.4	51.5	60.6	70.0	79.5	88.9	98.4	107.9	114.1
87.5°	13.2	22.5	31.7	40.8	50.1	59.6	69.4	79.1	88.9	98.6	104.9
90°	7.5	18.0	28.6	39.2	49.8	60.5	71.4	82.4	93.3	104.2	111.0
92.5°	22.6	30.4	38.2	46.0	53.9	62.7	72.5	82.3	92.2	102.0	108.3
95°	58.2	59.2	60.2	61.2	62.2	67.8	77.9	88.0	98.2	108.3	114.9
97.5°	109.7	99.1	88.5	77.8	67.1	67.5	79.0	90.4	101.9	113.3	119.6
100°	148.8	129.5	110.2	90.9	71.5	67.6	78.9	90.3	101.7	113.0	119.9
102.5°	191.3	191.0	190.8	190.6	190.3	181.3	163.6	146.0	128.3	110.6	117.8
105°	250.9	260.6	270.4	280.1	289.8	273.8	232.1	190.4	148.6	106.9	114.1
107.5°	319.7	327.5	335.3	343.1	350.9	328.9	277.0	225.2	173.3	121.4	124.3
110°	363.5	370.2	376.9	383.7	390.5	371.3	326.3	281.2	236.2	191.1	177.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	405.1	411.0	416.9	422.7	428.6	428.5	422.4	416.4	410.4	404.4	343.0
115°	470.9	475.6	480.4	485.1	489.7	497.7	508.9	520.0	531.3	542.4	463.1
117.5°	529.1	533.6	538.1	542.6	547.1	554.0	563.2	572.5	581.8	591.0	575.2
120°	572.0	575.4	578.7	582.0	585.3	591.6	600.7	609.9	619.1	628.2	634.5
122.5°	608.6	611.6	614.7	617.9	621.0	627.1	636.1	645.2	654.4	663.5	668.8
125°	663.4	665.8	668.2	670.5	672.9	678.1	686.3	694.5	702.7	710.8	716.0
127.5°	713.7	716.2	718.7	721.1	723.6	728.0	734.4	740.8	747.2	753.6	759.1
130°	745.6	748.4	751.2	753.9	756.7	760.6	765.7	770.8	775.9	781.0	786.6
132.5°	778.3	780.6	782.9	785.2	787.6	790.9	795.2	799.7	804.1	808.4	813.6
135°	819.9	822.9	825.7	828.7	831.5	834.6	837.7	840.7	843.8	846.9	851.9
137.5°	862.8	864.8	866.7	868.8	870.8	873.0	875.5	878.0	880.5	883.0	887.5
140°	890.8	892.1	893.4	894.7	896.0	897.8	900.1	902.3	904.6	907.0	911.0
142.5°	914.3	915.4	916.6	917.7	918.9	920.6	922.9	925.3	927.6	930.0	933.4
145°	950.4	950.2	950.0	949.9	949.7	951.1	954.2	957.3	960.4	963.4	965.5
147.5°	982.5	981.8	981.1	980.4	979.7	980.9	983.9	987.0	990.1	993.1	994.2
150°	1003.4	1002.1	1000.8	999.5	998.3	999.1	1002.0	1004.9	1007.8	1010.7	1011.7
152.5°	1020.9	1019.5	1018.1	1016.7	1015.3	1015.9	1018.7	1021.5	1024.2	1027.0	1028.1
155°	1046.5	1044.9	1043.2	1041.6	1040.0	1040.3	1042.4	1044.6	1046.8	1048.9	1050.0
157.5°	1066.5	1065.1	1063.8	1062.4	1061.0	1061.1	1062.7	1064.2	1065.7	1067.2	1068.4
160°	1078.3	1077.2	1076.1	1075.0	1073.9	1073.9	1075.0	1076.1	1077.2	1078.3	1079.3
162.5°	1088.7	1087.6	1086.5	1085.4	1084.3	1084.2	1085.2	1086.1	1087.1	1088.1	1089.2
165°	1102.7	1101.6	1100.5	1099.4	1098.3	1098.1	1098.6	1099.1	1099.7	1100.3	1101.5
167.5°	1113.1	1112.1	1111.0	1109.8	1108.8	1108.5	1109.0	1109.5	1110.0	1110.5	1111.8
170°	1119.0	1117.8	1116.8	1115.7	1114.6	1114.3	1114.6	1115.0	1115.4	1115.7	1117.0
172.5°	1122.8	1121.8	1120.7	1119.6	1118.6	1118.2	1118.6	1118.9	1119.3	1119.6	1120.9
175°	1127.9	1126.7	1125.4	1124.1	1122.8	1122.4	1122.8	1123.1	1123.5	1123.8	1125.2
177.5°	1128.7	1127.7	1126.8	1125.7	1124.7	1124.3	1124.4	1124.5	1124.7	1124.8	1125.9
180°	1125.5	1125.5	1125.5	1125.5	1125.5	1125.5	1125.5	1125.5	1125.5	1125.5	1125.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	459.5	459.5	459.5	459.5	459.5	459.5	459.5	459.5
2.5°	458.1	458.6	459.2	459.4	459.1	459.0	458.7	458.4
5°	456.6	457.5	458.4	458.8	458.6	458.5	458.3	458.2
7.5°	454.4	455.5	456.6	457.0	456.9	456.7	456.6	456.5
10°	452.5	453.7	455.0	455.5	455.3	455.1	455.0	454.9
12.5°	449.3	450.6	451.7	452.3	452.1	451.9	451.8	451.7
15°	443.5	444.9	446.2	446.7	446.7	446.5	446.3	446.2
17.5°	436.0	437.5	438.8	439.5	439.5	439.5	439.5	439.5
20°	430.2	431.8	433.4	434.2	434.2	434.2	434.2	434.2
22.5°	423.7	425.3	427.0	427.9	428.2	428.4	428.6	428.9
25°	413.8	415.5	417.3	418.5	418.9	419.4	419.8	420.3
27.5°	402.8	405.0	407.2	408.5	408.8	409.2	409.5	409.8
30°	395.0	397.3	399.8	401.1	401.5	402.0	402.4	402.9
32.5°	386.6	389.3	392.1	393.9	394.7	395.5	396.3	397.1
35°	374.8	378.1	381.3	383.4	384.5	385.5	386.6	387.6
37.5°	362.6	366.2	369.8	372.1	373.3	374.3	375.4	376.6
40°	354.0	357.8	361.7	364.3	365.6	366.9	368.3	369.6
42.5°	345.6	349.8	354.0	356.9	358.1	359.4	360.8	362.1
45°	332.9	337.4	342.0	345.0	346.5	348.0	349.5	351.0
47.5°	319.5	324.3	329.1	332.3	333.9	335.6	337.2	338.9
50°	310.4	315.4	320.5	323.8	325.5	327.1	328.7	330.3
52.5°	300.5	305.7	310.9	314.2	316.0	317.8	319.5	321.3
55°	285.7	291.1	296.3	300.0	301.9	303.8	305.8	307.6
57.5°	270.0	275.7	281.5	285.3	287.3	289.3	291.2	293.2
60°	259.7	265.3	270.9	274.7	276.8	278.9	281.0	283.0
62.5°	248.6	254.6	260.6	264.6	266.5	268.5	270.5	272.4
65°	231.9	238.0	244.1	248.1	249.9	251.9	253.8	255.7
67.5°	215.0	221.1	227.2	231.3	233.3	235.3	237.4	239.3
70°	203.2	209.6	215.9	220.0	221.8	223.6	225.3	227.1
72.5°	191.8	198.0	204.3	208.5	210.5	212.7	214.8	217.0
75°	174.6	180.9	187.3	191.5	193.3	195.3	197.2	199.1
77.5°	157.7	164.1	170.4	174.6	176.6	178.7	180.8	182.9
80°	146.3	152.5	158.7	162.8	165.0	167.0	169.1	171.1
82.5°	135.6	141.9	148.0	152.1	154.1	156.0	158.0	160.0
85°	120.3	126.5	132.8	136.9	138.9	141.1	143.1	145.2
87.5°	111.0	117.3	123.5	127.6	129.6	131.5	133.5	135.5
90°	117.9	124.7	131.5	136.0	138.1	140.3	142.4	144.5
92.5°	114.6	120.8	127.1	131.3	133.2	135.2	137.2	139.2
95°	121.4	128.0	134.5	138.5	140.1	141.7	143.3	144.9
97.5°	125.7	132.0	138.1	142.2	144.2	146.2	148.1	150.1
100°	126.9	133.8	140.7	145.2	147.1	149.2	151.1	153.1
102.5°	125.1	132.3	139.6	144.3	146.3	148.5	150.6	152.8
105°	121.3	128.5	135.6	140.4	142.8	145.1	147.5	149.8
107.5°	127.2	130.2	133.1	135.8	138.1	140.5	142.9	145.2
110°	164.4	151.1	137.7	132.2	134.6	136.9	139.2	141.6



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CATALOG NUMBER: SA2XXDIP-C485D925U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	281.8	220.5	159.3	129.7	131.9	134.1	136.3	138.5
115°	383.7	304.3	225.1	179.7	168.3	156.9	145.4	134.0
117.5°	559.3	543.4	527.5	498.9	457.6	416.3	375.0	333.7
120°	640.9	647.2	653.5	645.2	622.5	599.7	576.8	554.0
122.5°	674.1	679.5	684.8	685.8	682.4	679.1	675.7	672.3
125°	721.3	726.6	731.8	735.4	737.3	739.1	741.0	742.9
127.5°	764.6	770.1	775.6	779.1	780.5	781.9	783.4	784.7
130°	792.1	797.6	803.2	806.5	807.4	808.4	809.4	810.5
132.5°	818.7	823.9	828.9	832.1	833.0	834.0	835.0	836.1
135°	856.8	861.7	866.7	869.5	870.3	871.1	872.0	872.8
137.5°	892.0	896.5	901.0	903.5	903.8	904.2	904.6	905.0
140°	914.9	918.9	922.9	924.9	924.9	924.9	924.9	924.9
142.5°	936.7	940.1	943.5	945.1	944.9	944.9	944.7	944.6
145°	967.8	969.9	972.1	973.0	972.9	972.7	972.6	972.4
147.5°	995.1	996.2	997.3	997.6	997.2	996.8	996.4	996.0
150°	1012.8	1014.0	1015.0	1015.1	1014.2	1013.3	1012.4	1011.5
152.5°	1029.1	1030.2	1031.3	1031.3	1030.0	1028.9	1027.7	1026.4
155°	1051.1	1052.2	1053.3	1053.1	1051.7	1050.2	1048.7	1047.3
157.5°	1069.6	1070.9	1072.1	1072.0	1070.6	1069.2	1067.7	1066.4
160°	1080.4	1081.6	1082.6	1082.5	1081.2	1080.0	1078.7	1077.5
162.5°	1090.5	1091.7	1093.0	1092.8	1091.3	1089.7	1088.2	1086.5
165°	1102.8	1104.0	1105.3	1105.3	1104.0	1102.8	1101.5	1100.3
167.5°	1113.0	1114.3	1115.6	1115.4	1113.7	1112.1	1110.5	1108.8
170°	1118.3	1119.5	1120.8	1120.6	1119.0	1117.3	1115.7	1114.1
172.5°	1122.1	1123.5	1124.7	1124.5	1122.8	1121.2	1119.6	1118.0
175°	1126.4	1127.7	1128.9	1128.6	1126.9	1125.1	1123.2	1121.4
177.5°	1126.9	1127.9	1128.9	1128.7	1127.5	1126.1	1124.8	1123.6
180°	1125.5	1125.5	1125.5	1125.5	1125.5	1125.5	1125.5	1125.5

(END OF REPORT)