

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: P333141-830

Luminaire Tested: **S125DIP-S375D810U830-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333141-830  
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-S375D810U830-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 375 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4176.0 lumens  
Efficiency: N/A  
Efficacy: 133.8 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-Indirect

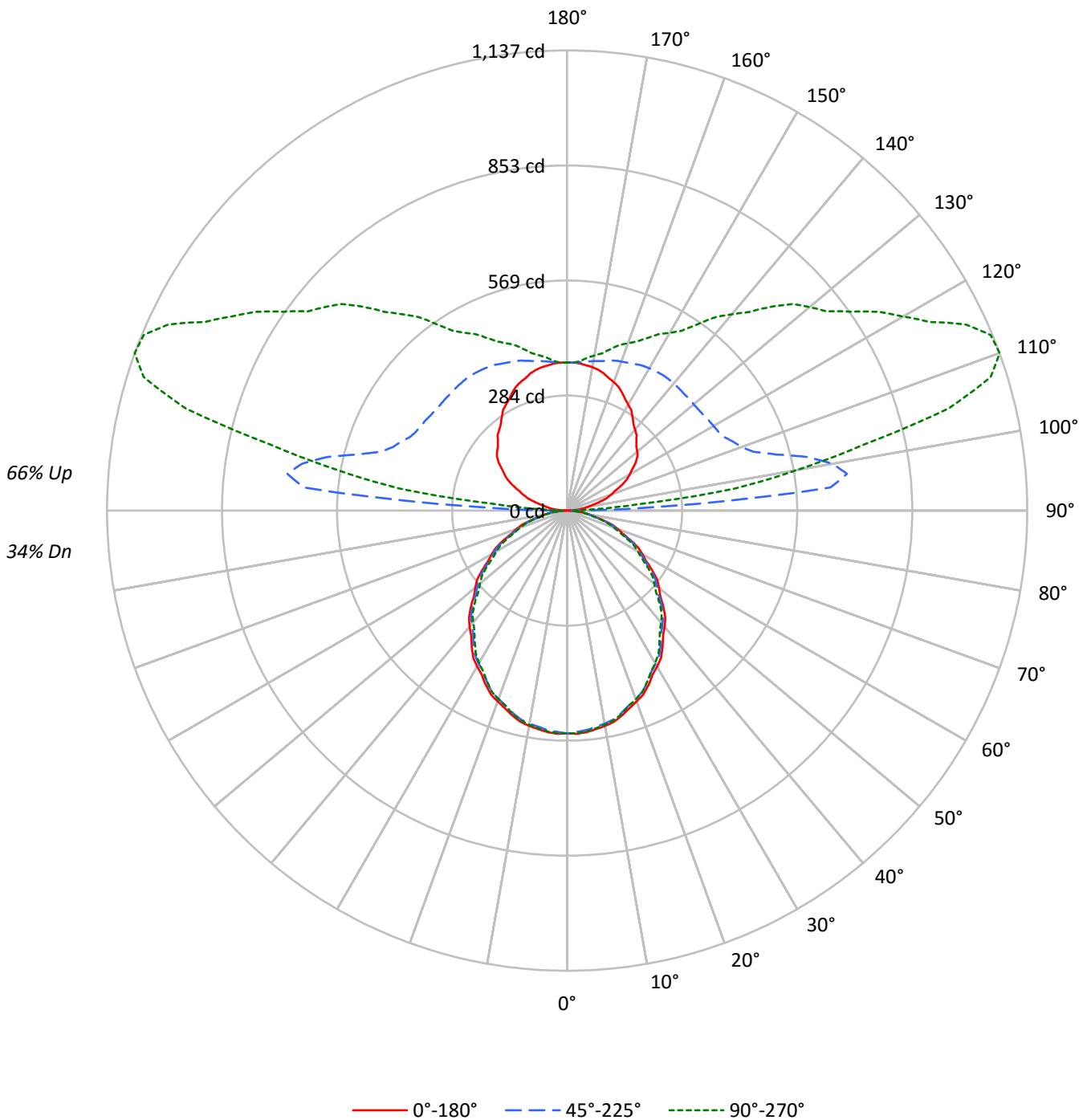
Input Watts (W): 31.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333141-830

CATALOG NUMBER: S125DIP-S375D810U830-4F0-1E-UDD-F4

### Luminous Intensity Polar Plot





TEST NUMBER: P333141-830

CATALOG NUMBER: S125DIP-S375D810U830-4F0-1E-UDD-F4

**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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	34
1	94	90	86	83	85	81	78	75	65	63	61	50	49	48	37	36	35	29
2	86	79	73	67	77	71	66	62	57	54	50	44	42	40	32	31	30	24
3	78	69	62	56	70	62	56	51	50	46	42	39	36	34	29	27	25	20
4	71	61	53	47	64	55	49	43	45	40	36	35	31	29	26	23	22	17
5	65	54	46	40	59	49	42	37	40	35	31	31	28	25	23	21	19	15
6	60	48	41	35	54	44	37	32	36	31	27	28	24	22	21	18	16	13
7	56	44	36	30	50	40	33	28	32	27	24	25	22	19	19	17	15	12
8	52	40	32	27	46	36	29	25	29	24	21	23	20	17	17	15	13	11
9	48	36	29	24	43	33	26	22	27	22	19	21	18	15	16	14	12	10
10	45	33	26	21	40	30	24	20	25	20	17	20	16	14	15	12	11	9

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

	0°	45°	90°
0°	3556	3556	3556
5°	3564	3530	3553
10°	3543	3505	3525
15°	3504	3463	3477
20°	3449	3404	3410
25°	3390	3334	3331
30°	3317	3258	3242
35°	3239	3177	3132
40°	3159	3089	3044
45°	3072	3008	2948
50°	2976	2910	2823
55°	2884	2800	2723
60°	2773	2689	2595
65°	2644	2557	2470
70°	2517	2402	2319
75°	2293	2218	2141
80°	2042	2008	1960
85°	1771	1808	1712



TEST NUMBER: P333141-830

CATALOG NUMBER: S125DIP-S375D810U830-4F0-1E-UDD-F4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.9	1.2
10°-20°	146.6	3.5
20°-30°	216.5	5.2
30°-40°	252.7	6.1
40°-50°	253.8	6.1
50°-60°	222.8	5.3
60°-70°	166.0	4.0
70°-80°	94.9	2.3
80°-90°	29.6	0.7
90°-100°	264.9	6.3
100°-110°	569.6	13.6
110°-120°	534.5	12.8
120°-130°	433.2	10.4
130°-140°	347.7	8.3
140°-150°	262.4	6.3
150°-160°	184.7	4.4
160°-170°	108.8	2.6
170°-180°	35.4	0.8
0°-30°	415.1	9.9
0°-40°	667.8	16.0
0°-60°	1144.3	27.4
0°-90°	1434.8	34.4
90°-120°	1369.1	32.8
90°-150°	2412.3	57.8
90°-180°	2741.0	65.6
0°-180°	4176.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	551	551	551	551	551	
5°	550	549	544	548	548	52
15°	524	522	518	520	520	148
25°	476	473	468	469	467	219
35°	411	409	403	401	397	257
45°	336	334	329	324	323	259
55°	256	255	249	245	242	229
65°	173	172	167	164	162	172
75°	92	91	89	88	86	98
85°	24	24	24	24	23	27
90°	1	7	12	15	17	3
95°	24	72	653	296	173	26
105°	83	116	534	1052	976	88
115°	149	179	429	925	1088	146
125°	206	242	411	736	857	183
135°	242	291	408	616	712	188
145°	282	322	410	510	562	176
155°	321	346	399	451	471	148
165°	351	360	383	406	413	99
175°	365	365	368	372	371	35
180°	366	366	366	366	366	



TEST NUMBER: P333141-830

CATALOG NUMBER: S125DIP-S375D810U830-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	550.6	550.6	550.6	550.6	550.6	550.6	550.6	550.6	550.6	550.6	550.6
2.5°	552.0	551.8	551.6	551.3	551.1	550.5	549.8	549.0	548.3	547.4	548.3
5°	549.7	549.5	549.3	549.1	548.9	548.4	547.4	546.5	545.4	544.5	545.4
7.5°	544.7	544.5	544.3	544.1	543.9	543.3	542.2	541.1	540.1	539.0	539.9
10°	540.2	540.0	539.8	539.6	539.4	538.8	537.7	536.6	535.6	534.5	535.3
12.5°	534.6	534.2	533.9	533.6	533.2	532.5	531.5	530.6	529.5	528.6	529.1
15°	524.1	523.8	523.5	523.2	522.8	522.2	521.1	520.1	519.0	517.9	518.4
17.5°	511.9	511.5	511.0	510.7	510.2	509.4	508.3	507.3	506.1	505.0	505.7
20°	501.8	501.6	501.4	501.2	501.1	500.3	499.1	497.8	496.5	495.3	496.0
22.5°	491.7	491.3	491.0	490.7	490.3	489.6	488.3	487.2	486.0	484.8	485.3
25°	475.7	475.2	474.7	474.2	473.7	472.9	471.6	470.3	469.1	467.9	468.1
27.5°	456.9	456.7	456.4	456.1	455.8	455.0	453.7	452.4	451.1	449.8	449.9
30°	444.8	444.5	444.1	443.8	443.6	442.7	441.3	439.8	438.4	436.9	436.7
32.5°	431.5	431.0	430.6	430.2	429.7	428.9	427.5	426.2	425.0	423.7	423.3
35°	410.8	410.4	410.0	409.6	409.3	408.3	407.0	405.7	404.3	402.9	402.5
37.5°	389.3	388.8	388.3	387.8	387.3	386.4	385.1	383.9	382.6	381.4	380.6
40°	374.7	374.1	373.6	373.2	372.7	371.7	370.4	369.1	367.7	366.4	365.5
42.5°	358.9	358.5	358.2	357.7	357.3	356.5	355.1	353.7	352.3	351.0	350.2
45°	336.3	335.9	335.5	335.2	334.7	333.9	332.8	331.7	330.5	329.3	328.2
47.5°	311.9	311.9	311.9	312.0	312.0	311.3	309.9	308.5	307.1	305.7	304.5
50°	296.2	296.0	295.7	295.3	295.0	294.4	293.1	292.0	290.9	289.6	288.4
52.5°	280.2	279.9	279.7	279.6	279.4	278.6	277.4	276.2	274.8	273.6	272.6
55°	256.1	255.8	255.5	255.2	255.0	254.1	252.8	251.5	250.1	248.7	247.9
57.5°	230.8	230.6	230.5	230.4	230.2	229.5	228.4	227.2	226.1	225.0	223.9
60°	214.7	214.3	214.0	213.6	213.2	212.4	211.4	210.4	209.2	208.2	207.3
62.5°	198.0	197.7	197.4	197.1	196.8	196.1	195.3	194.4	193.4	192.6	191.5
65°	173.0	172.8	172.6	172.4	172.2	171.5	170.5	169.4	168.3	167.3	166.4
67.5°	148.6	148.3	147.8	147.4	147.0	146.4	145.6	144.8	144.0	143.3	142.5
70°	133.3	132.8	132.3	131.9	131.4	130.6	129.8	128.9	128.1	127.2	126.6
72.5°	116.6	116.2	115.9	115.6	115.3	114.8	114.2	113.7	113.1	112.5	111.9
75°	91.9	91.7	91.5	91.3	91.1	90.8	90.3	89.8	89.4	88.9	88.6
77.5°	69.2	69.1	69.0	68.9	68.9	68.7	68.4	68.1	67.9	67.6	67.4
80°	54.9	54.9	54.9	54.9	54.9	54.8	54.6	54.4	54.2	54.0	53.9
82.5°	42.3	42.2	42.0	41.8	41.8	41.7	41.6	41.6	41.5	41.5	41.3
85°	23.9	24.0	24.1	24.2	24.3	24.4	24.4	24.4	24.4	24.4	24.3
87.5°	9.5	9.7	10.0	10.3	10.6	10.8	10.9	11.1	11.2	11.4	11.6
90°	0.8	1.5	2.9	4.4	5.9	7.4	8.1	9.6	10.3	11.8	12.5
92.5°	9.0	10.9	17.1	26.2	38.9	60.4	100.7	168.1	241.4	237.6	192.4
95°	24.3	25.1	30.9	39.0	55.2	88.4	167.3	329.4	532.8	653.0	638.9
97.5°	40.3	41.3	45.4	53.5	68.1	92.0	144.1	263.0	475.8	697.3	808.4
100°	51.6	53.1	56.0	64.1	78.1	100.2	143.0	238.7	424.5	665.5	849.7
102.5°	64.0	64.8	67.2	75.9	88.7	110.3	148.3	228.8	385.6	609.4	825.0
105°	83.3	83.3	87.0	94.3	106.1	126.8	159.2	224.8	347.9	534.3	745.8
107.5°	102.2	103.6	107.2	113.2	125.5	144.0	175.4	231.6	332.0	482.6	665.1
110°	115.7	117.2	120.1	126.8	137.8	156.9	187.2	238.1	327.3	458.4	619.1



TEST NUMBER: P333141-830

CATALOG NUMBER: S125DIP-S375D810U830-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	129.2	130.7	133.1	139.7	150.8	169.4	198.4	246.3	327.3	444.2	584.8
115°	148.8	150.3	152.6	159.2	170.2	188.7	215.9	258.6	329.4	429.0	547.5
117.5°	166.5	168.8	171.2	177.8	190.3	208.1	233.9	272.9	334.3	421.4	525.3
120°	178.3	180.6	183.5	190.1	202.6	221.1	246.9	282.3	339.0	417.8	512.9
122.5°	190.8	192.4	194.7	201.3	215.1	233.5	259.3	292.8	343.1	414.9	502.3
125°	206.3	207.8	211.5	218.1	232.1	251.3	275.6	307.3	350.1	411.2	487.9
127.5°	218.6	220.8	225.6	233.9	248.8	268.0	291.4	320.6	357.9	409.4	474.6
130°	226.2	228.5	234.3	243.9	259.4	278.6	301.4	329.4	362.6	408.3	465.8
132.5°	232.1	235.0	242.0	252.8	268.8	288.0	310.9	337.1	367.9	408.3	458.7
135°	241.8	244.7	253.5	265.3	280.8	300.7	323.6	347.9	375.1	408.3	450.3
137.5°	253.8	256.0	264.3	276.1	291.2	311.7	332.5	355.8	381.7	409.2	442.8
140°	260.9	263.1	271.9	283.7	297.7	317.6	339.0	361.1	384.7	409.7	439.2
142.5°	269.1	270.8	279.0	290.8	304.3	322.9	343.1	364.1	386.4	410.4	436.3
145°	281.5	283.0	290.4	300.7	314.0	330.9	350.1	368.4	388.4	409.7	431.9
147.5°	294.5	295.4	301.7	311.3	322.8	337.7	354.5	371.2	389.1	407.8	427.3
150°	302.2	303.6	308.8	318.4	328.7	341.2	357.4	372.9	389.1	406.0	423.8
152.5°	310.4	311.3	315.8	324.2	334.0	345.3	360.3	374.1	388.5	403.7	419.6
155°	321.3	321.3	325.7	333.1	340.4	350.8	363.4	375.1	386.9	399.4	412.7
157.5°	331.0	330.9	334.4	340.7	347.2	355.1	365.8	375.9	385.0	395.0	406.2
160°	337.5	336.8	339.8	344.9	350.8	357.4	367.0	375.9	383.2	392.1	401.0
162.5°	342.8	342.1	345.1	349.6	354.3	359.8	368.2	375.2	381.4	388.5	396.2
165°	350.8	349.3	351.6	355.2	358.2	362.6	368.4	374.4	378.8	383.2	389.1
167.5°	356.1	355.3	356.7	358.7	360.8	363.6	368.4	372.6	374.7	378.1	382.2
170°	359.7	358.9	359.7	361.1	362.6	364.8	368.4	371.5	372.9	375.1	378.1
172.5°	362.0	360.7	361.4	362.9	363.7	364.8	367.9	370.2	370.5	371.6	373.9
175°	364.8	363.4	364.1	364.8	364.8	364.8	367.0	368.4	367.8	367.8	368.4
177.5°	366.1	365.0	365.0	365.5	365.0	365.0	366.1	366.7	365.5	365.5	366.1
180°	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5



TEST NUMBER: P333141-830

CATALOG NUMBER: S125DIP-S375D810U830-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	550.6	550.6	550.6	550.6	550.6	550.6	550.6	550.6
2.5°	549.0	549.8	550.5	550.9	550.8	550.7	550.7	550.6
5°	546.2	547.1	548.0	548.4	548.3	548.2	548.1	548.0
7.5°	540.7	541.6	542.4	542.8	542.7	542.6	542.5	542.4
10°	536.0	536.8	537.6	537.9	537.8	537.7	537.6	537.5
12.5°	529.8	530.5	531.0	531.3	531.3	531.3	531.3	531.2
15°	518.9	519.3	519.9	520.1	520.1	520.1	520.1	520.1
17.5°	506.2	506.8	507.5	507.5	507.0	506.5	506.1	505.6
20°	496.6	497.3	497.9	498.1	497.6	497.1	496.6	496.2
22.5°	485.7	486.2	486.6	486.6	486.4	486.0	485.7	485.3
25°	468.3	468.4	468.6	468.5	468.3	468.0	467.7	467.4
27.5°	449.9	449.9	450.0	449.9	449.5	449.2	448.9	448.7
30°	436.5	436.3	436.1	435.9	435.6	435.4	435.0	434.7
32.5°	423.0	422.6	422.3	421.9	421.3	420.8	420.3	419.7
35°	402.0	401.5	401.0	400.4	399.6	398.8	398.0	397.3
37.5°	379.9	379.2	378.4	377.9	377.4	377.0	376.5	376.1
40°	364.6	363.7	362.9	362.3	362.0	361.7	361.4	361.1
42.5°	349.4	348.6	347.8	347.2	346.8	346.3	345.9	345.4
45°	327.0	325.8	324.7	324.0	323.7	323.4	323.1	322.8
47.5°	303.3	302.2	301.0	300.0	299.4	298.7	298.0	297.4
50°	287.2	285.9	284.6	283.7	283.0	282.3	281.6	281.0
52.5°	271.5	270.3	269.2	268.3	267.6	266.8	266.1	265.3
55°	246.9	246.1	245.2	244.5	243.8	243.1	242.4	241.8
57.5°	222.7	221.6	220.5	219.7	219.3	219.0	218.6	218.2
60°	206.3	205.3	204.3	203.5	202.8	202.2	201.5	200.9
62.5°	190.5	189.4	188.3	187.6	187.1	186.5	186.0	185.5
65°	165.5	164.7	163.8	163.2	162.8	162.4	162.0	161.6
67.5°	141.8	141.0	140.3	139.8	139.6	139.3	139.1	138.8
70°	126.0	125.5	124.9	124.4	124.0	123.7	123.2	122.8
72.5°	111.2	110.6	109.9	109.4	109.1	108.7	108.2	107.8
75°	88.3	88.0	87.7	87.4	87.0	86.6	86.2	85.8
77.5°	67.3	67.1	66.9	66.7	66.4	66.2	65.9	65.6
80°	53.8	53.7	53.6	53.4	53.3	53.1	52.9	52.7
82.5°	41.1	40.9	40.8	40.6	40.6	40.6	40.5	40.5
85°	24.2	24.1	24.0	23.8	23.7	23.5	23.3	23.1
87.5°	11.7	11.9	12.0	12.3	12.1	11.9	11.9	11.8
90°	13.3	14.0	14.7	16.2	16.2	16.2	17.0	17.0
92.5°	130.6	94.8	71.4	60.4	51.0	49.2	48.2	47.0
95°	529.9	417.8	327.3	265.3	213.0	190.9	185.0	173.1
97.5°	789.2	710.6	622.3	536.2	490.7	449.4	428.0	418.6
100°	906.4	870.3	794.5	717.8	666.9	613.9	586.6	574.9
102.5°	945.9	968.3	931.8	880.0	825.6	787.8	758.2	749.3
105°	922.7	1023.7	1056.1	1048.0	1024.4	1000.0	985.3	976.5
107.5°	839.5	974.3	1057.5	1096.0	1108.0	1107.8	1103.0	1097.0
110°	778.3	918.2	1022.2	1084.8	1117.9	1132.0	1137.2	1137.2





TEST NUMBER: P333141-830

CATALOG NUMBER: S125DIP-S375D810U830-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	729.9	862.8	967.9	1041.8	1090.2	1114.3	1127.1	1132.5
115°	669.2	783.4	884.4	964.7	1022.2	1057.5	1078.2	1087.8
117.5°	630.0	728.4	815.4	889.1	946.6	983.1	1003.6	1009.5
120°	608.7	697.2	778.3	843.1	897.6	933.0	952.9	958.8
122.5°	592.9	674.8	747.0	807.8	856.4	888.8	908.7	914.0
125°	569.7	644.9	709.0	762.0	803.3	833.5	849.7	857.1
127.5°	546.1	616.2	676.1	725.8	763.2	789.9	805.2	808.4
130°	531.3	596.3	653.7	701.6	738.5	762.8	777.5	781.9
132.5°	516.6	577.3	629.5	675.6	712.5	736.8	750.4	755.4
135°	497.5	548.3	595.5	637.4	669.9	694.2	707.5	711.9
137.5°	481.3	522.4	561.6	597.2	626.3	648.4	660.6	665.5
140°	472.4	507.0	540.9	571.8	599.2	618.3	629.3	633.0
142.5°	464.8	494.1	523.2	550.1	573.3	589.5	599.9	602.9
145°	454.7	477.6	500.4	520.3	538.0	550.5	558.6	561.6
147.5°	445.3	463.8	481.4	496.4	510.4	520.5	525.2	526.5
150°	440.0	456.2	470.1	483.4	494.6	503.3	506.3	507.0
152.5°	434.0	448.6	461.4	471.6	481.0	488.0	491.0	491.7
155°	425.3	437.1	447.3	455.4	462.8	468.0	470.1	470.9
157.5°	416.4	426.1	434.0	440.5	446.2	450.4	452.5	452.3
160°	410.5	417.8	425.3	430.4	435.5	439.2	440.7	440.0
162.5°	404.0	410.8	417.0	421.5	425.6	428.6	429.0	428.8
165°	395.0	400.2	404.6	408.3	411.2	412.7	412.7	412.7
167.5°	386.4	389.8	393.2	395.9	397.4	398.7	398.1	397.9
170°	381.7	384.0	386.2	387.7	389.1	389.8	389.8	389.1
172.5°	376.5	378.6	380.3	381.2	381.4	382.8	381.6	380.9
175°	370.7	370.7	372.2	372.2	372.2	372.9	371.5	370.7
177.5°	366.7	367.3	367.3	367.3	366.7	367.3	365.5	365.5
180°	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5

(END OF REPORT)