

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: P333345-940

Luminaire Tested: **S125DIW-S375D470U940-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333345-940  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIW-S375D470U940-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 375 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2805.9 lumens  
Efficiency: N/A  
Efficacy: 122.0 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: General Diffuse

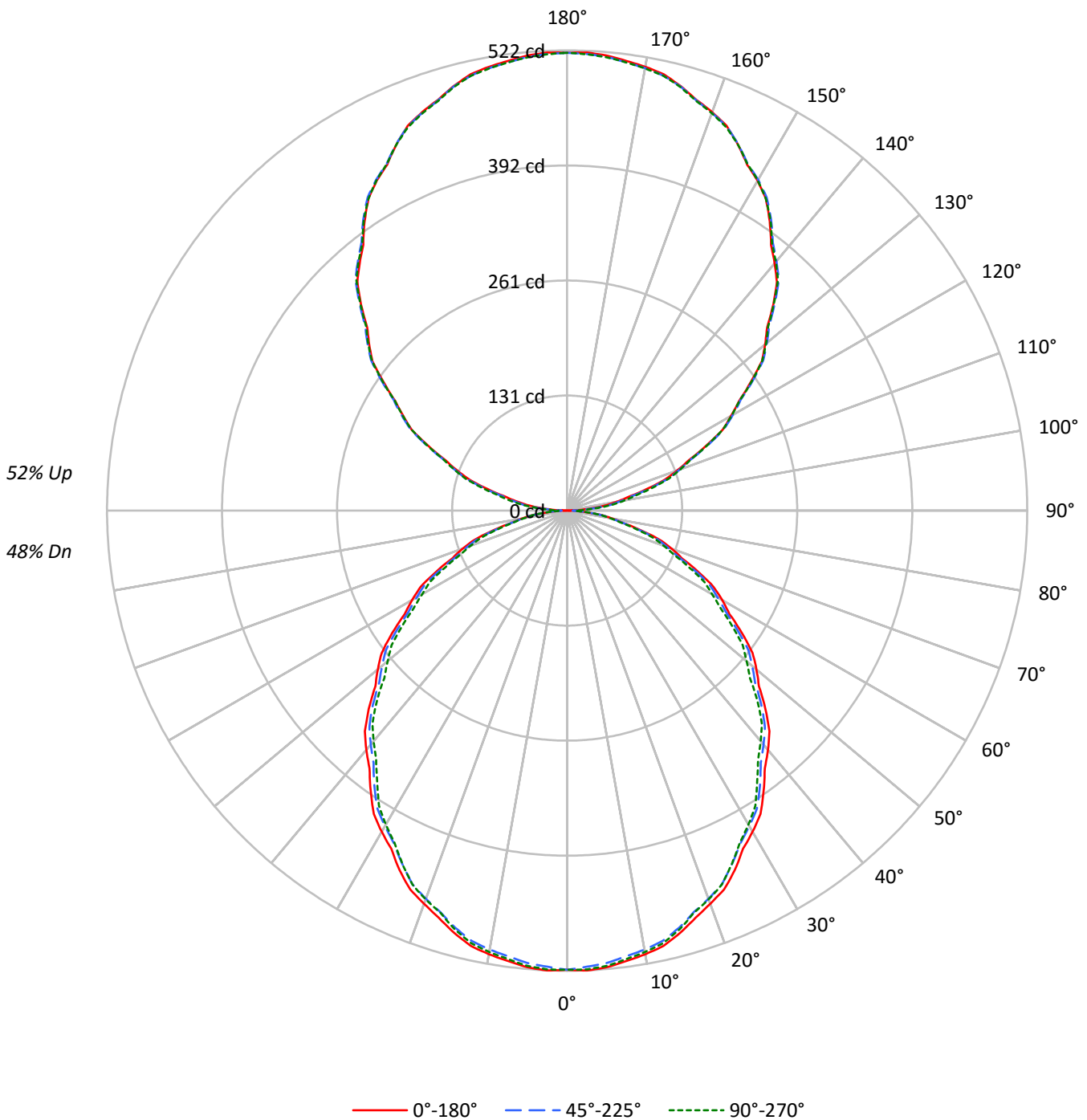
Input Watts (W): 23  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333345-940

CATALOG NUMBER: S125DIW-S375D470U940-4F0-1E-UDD-F1

### 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	98	98	98	98	82	82	82	68	68	68	55	55	55	48
1	97	93	89	86	89	86	82	79	72	70	68	60	58	56	48	47	46	41
2	89	81	75	70	81	75	70	65	63	59	56	52	50	47	42	40	39	34
3	81	71	64	58	74	66	59	54	56	51	47	46	43	40	37	35	33	29
4	74	63	55	49	68	58	51	46	49	44	40	41	37	34	33	31	28	25
5	68	56	48	42	62	52	45	39	44	39	34	37	33	29	30	27	25	21
6	62	50	42	36	57	47	40	34	40	34	30	33	29	26	27	24	22	19
7	58	45	38	32	53	42	35	30	36	30	26	30	26	23	25	22	19	17
8	54	41	34	28	49	38	31	27	33	27	23	28	23	20	23	20	17	15
9	50	38	30	25	46	35	28	24	30	25	21	26	21	18	21	18	16	13
10	47	35	27	23	43	32	26	21	28	23	19	24	19	17	20	16	14	12

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

	0°	45°	90°
0°	3364	3364	3364
5°	3371	3339	3361
10°	3351	3316	3335
15°	3315	3276	3290
20°	3263	3221	3226
25°	3207	3154	3151
30°	3138	3082	3067
35°	3064	3005	2964
40°	2989	2922	2880
45°	2906	2846	2789
50°	2816	2753	2671
55°	2728	2649	2575
60°	2623	2545	2454
65°	2500	2419	2337
70°	2381	2274	2194
75°	2168	2099	2024
80°	1930	1901	1852
85°	1675	1712	1615



TEST NUMBER: P333345-940

CATALOG NUMBER: S125DIW-S375D470U940-4F0-1E-UDD-F1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.1	1.8
10°-20°	138.7	4.9
20°-30°	204.9	7.3
30°-40°	239.0	8.5
40°-50°	240.1	8.6
50°-60°	210.7	7.5
60°-70°	157.0	5.6
70°-80°	89.8	3.2
80°-90°	27.3	1.0
90°-100°	34.8	1.2
100°-110°	102.7	3.7
110°-120°	174.0	6.2
120°-130°	229.0	8.2
130°-140°	256.6	9.1
140°-150°	251.5	9.0
150°-160°	211.2	7.5
160°-170°	140.4	5.0
170°-180°	49.1	1.8
0°-30°	392.7	14.0
0°-40°	631.7	22.5
0°-60°	1082.6	38.6
0°-90°	1356.6	48.4
90°-120°	311.5	11.1
90°-150°	1048.5	37.4
90°-180°	1449.0	51.6
0°-180°	2805.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	521	521	521	521	521	
5°	520	519	515	519	518	49
15°	496	494	490	492	492	140
25°	450	448	443	443	442	207
35°	389	387	381	379	376	243
45°	318	316	312	307	305	245
55°	242	241	235	232	229	216
65°	164	163	158	155	153	162
75°	87	86	84	83	81	93
85°	23	23	23	23	22	25
90°	0	4	6	8	10	3
95°	26	27	31	34	35	28
105°	92	94	97	99	100	98
115°	174	176	177	176	176	172
125°	254	257	257	256	256	228
135°	331	333	333	333	332	255
145°	401	402	403	403	402	250
155°	458	458	459	460	458	211
165°	498	498	498	499	497	141
175°	518	517	516	519	516	49
180°	519	519	519	519	519	



TEST NUMBER: P333345-940

CATALOG NUMBER: S125DIW-S375D470U940-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	520.9	520.9	520.9	520.9	520.9	520.9	520.9	520.9	520.9	520.9	520.9
2.5°	522.2	522.0	521.8	521.6	521.4	520.8	520.1	519.4	518.7	517.9	518.7
5°	520.0	519.9	519.7	519.5	519.3	518.8	517.9	517.0	516.0	515.1	515.9
7.5°	515.3	515.1	515.0	514.8	514.6	514.0	513.0	511.9	511.0	510.0	510.8
10°	511.0	510.9	510.7	510.5	510.3	509.7	508.7	507.7	506.7	505.7	506.4
12.5°	505.8	505.4	505.1	504.8	504.4	503.8	502.8	501.9	501.0	500.1	500.6
15°	495.8	495.5	495.3	495.0	494.6	494.0	493.0	492.0	491.0	490.0	490.4
17.5°	484.3	483.9	483.5	483.1	482.7	482.0	480.9	479.9	478.8	477.8	478.4
20°	474.7	474.6	474.4	474.2	474.0	473.3	472.2	470.9	469.8	468.6	469.2
22.5°	465.2	464.8	464.5	464.2	463.9	463.2	462.0	460.9	459.8	458.7	459.1
25°	450.0	449.6	449.1	448.6	448.2	447.4	446.2	445.0	443.8	442.6	442.8
27.5°	432.3	432.0	431.8	431.5	431.2	430.4	429.3	428.0	426.8	425.5	425.6
30°	420.8	420.5	420.2	419.9	419.6	418.8	417.5	416.1	414.7	413.3	413.1
32.5°	408.2	407.8	407.4	407.0	406.5	405.7	404.5	403.2	402.1	400.8	400.5
35°	388.6	388.3	387.9	387.5	387.2	386.3	385.0	383.8	382.5	381.2	380.8
37.5°	368.3	367.8	367.4	366.8	366.4	365.6	364.4	363.2	361.9	360.8	360.1
40°	354.5	353.9	353.5	353.0	352.6	351.7	350.4	349.2	347.9	346.6	345.8
42.5°	339.6	339.2	338.9	338.4	338.0	337.2	335.9	334.7	333.3	332.1	331.4
45°	318.2	317.8	317.4	317.1	316.6	315.9	314.9	313.8	312.6	311.6	310.5
47.5°	295.1	295.1	295.1	295.2	295.2	294.5	293.2	291.9	290.5	289.2	288.1
50°	280.3	280.0	279.7	279.4	279.1	278.5	277.3	276.3	275.2	274.0	272.9
52.5°	265.1	264.8	264.7	264.5	264.3	263.6	262.4	261.3	260.0	258.9	257.9
55°	242.3	242.0	241.7	241.5	241.2	240.4	239.2	237.9	236.6	235.3	234.5
57.5°	218.4	218.2	218.0	217.9	217.8	217.1	216.1	215.0	213.9	212.9	211.8
60°	203.1	202.8	202.4	202.1	201.7	201.0	200.0	199.0	198.0	197.0	196.1
62.5°	187.3	187.1	186.7	186.5	186.2	185.6	184.8	183.9	183.0	182.2	181.2
65°	163.6	163.5	163.3	163.1	162.9	162.3	161.3	160.2	159.3	158.3	157.4
67.5°	140.6	140.3	139.8	139.5	139.1	138.5	137.8	137.0	136.3	135.5	134.8
70°	126.1	125.6	125.2	124.8	124.3	123.6	122.8	122.0	121.2	120.4	119.8
72.5°	110.3	109.9	109.7	109.3	109.1	108.6	108.1	107.5	107.0	106.5	105.8
75°	86.9	86.8	86.6	86.4	86.2	85.9	85.4	85.0	84.5	84.1	83.8
77.5°	65.5	65.4	65.3	65.2	65.2	65.0	64.7	64.5	64.2	63.9	63.8
80°	51.9	51.9	51.9	51.9	51.9	51.8	51.6	51.5	51.3	51.1	51.0
82.5°	40.0	39.9	39.8	39.6	39.5	39.4	39.3	39.3	39.2	39.2	39.1
85°	22.6	22.7	22.8	22.9	23.0	23.1	23.1	23.1	23.1	23.1	23.0
87.5°	9.0	9.1	9.3	9.5	9.5	9.6	9.7	9.7	9.8	9.9	10.0
90°	0.4	1.2	1.9	2.6	3.3	3.9	4.5	5.2	5.8	6.5	7.0
92.5°	9.8	10.3	10.8	11.3	11.8	12.4	13.2	14.0	14.7	15.5	16.1
95°	26.3	26.5	26.7	26.8	27.0	27.6	28.4	29.3	30.2	31.1	31.7
97.5°	43.6	43.7	43.8	43.9	44.0	44.6	45.8	47.1	48.3	49.6	50.1
100°	56.6	56.6	56.6	56.6	56.6	57.2	58.3	59.5	60.6	61.8	62.7
102.5°	70.4	70.8	71.2	71.6	72.0	72.4	73.0	73.6	74.2	74.7	75.6
105°	92.1	92.6	93.0	93.5	94.0	94.4	95.0	95.5	96.0	96.6	97.1
107.5°	116.1	116.5	117.0	117.4	117.9	118.3	118.7	119.1	119.6	119.9	120.2
110°	132.6	133.0	133.5	133.9	134.4	134.7	135.0	135.3	135.5	135.8	136.1



TEST NUMBER: P333345-940

CATALOG NUMBER: S125DIW-S375D470U940-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	149.4	149.6	149.8	150.1	150.3	150.6	151.0	151.3	151.6	151.9	152.1
115°	174.2	174.5	175.0	175.3	175.7	175.9	176.1	176.3	176.5	176.6	176.6
117.5°	199.1	199.2	199.4	199.6	199.7	199.9	200.1	200.2	200.4	200.5	200.6
120°	214.6	215.1	215.5	216.0	216.4	216.7	216.8	216.9	217.0	217.0	217.0
122.5°	231.4	231.6	231.8	231.9	232.0	232.3	232.5	232.7	233.0	233.2	233.1
125°	254.2	254.8	255.3	255.8	256.4	256.7	256.8	256.9	257.0	257.1	256.9
127.5°	278.5	278.7	279.1	279.4	279.7	279.9	280.0	280.1	280.2	280.4	280.3
130°	293.0	293.5	293.9	294.4	294.8	295.2	295.3	295.5	295.7	295.9	295.8
132.5°	307.6	308.3	309.1	309.8	310.5	310.9	310.9	310.8	310.8	310.7	310.6
135°	330.6	331.2	331.7	332.3	332.8	333.1	333.1	333.2	333.3	333.4	333.4
137.5°	352.2	352.8	353.3	353.8	354.4	354.7	354.9	355.1	355.3	355.5	355.6
140°	366.1	366.6	367.0	367.5	367.9	368.4	368.6	368.9	369.2	369.4	369.6
142.5°	380.0	380.4	380.8	381.2	381.6	381.9	382.3	382.6	383.0	383.3	383.4
145°	400.6	400.9	401.3	401.6	402.0	402.3	402.5	402.8	403.1	403.3	403.3
147.5°	419.5	419.6	419.8	420.0	420.3	420.4	420.6	420.9	421.1	421.3	421.5
150°	432.0	431.9	431.9	431.8	431.7	431.9	432.2	432.6	432.9	433.3	433.3
152.5°	442.4	442.6	442.6	442.7	442.9	443.0	443.2	443.4	443.4	443.6	443.8
155°	458.3	458.3	458.3	458.3	458.3	458.3	458.4	458.5	458.6	458.7	459.1
157.5°	472.5	472.3	472.2	472.0	471.7	471.7	471.8	471.9	472.0	472.1	472.4
160°	481.0	480.7	480.4	480.1	479.8	479.7	479.8	479.9	480.0	480.1	480.5
162.5°	488.4	488.2	488.0	487.8	487.6	487.5	487.5	487.5	487.6	487.6	488.0
165°	498.3	498.1	497.9	497.8	497.6	497.6	497.7	497.8	497.8	497.9	498.3
167.5°	506.8	506.4	506.0	505.7	505.3	505.2	505.2	505.2	505.2	505.2	505.7
170°	511.2	510.9	510.5	510.1	509.8	509.6	509.6	509.6	509.6	509.6	510.1
172.5°	514.5	514.2	513.8	513.4	513.1	512.9	512.9	512.9	512.9	512.9	513.4
175°	518.2	517.7	517.4	517.0	516.7	516.5	516.5	516.5	516.5	516.5	517.0
177.5°	520.0	519.7	519.4	519.2	518.8	518.6	518.6	518.5	518.4	518.4	518.8
180°	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3



TEST NUMBER: P333345-940

CATALOG NUMBER: S125DIW-S375D470U940-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	520.9	520.9	520.9	520.9	520.9	520.9	520.9	520.9
2.5°	519.4	520.1	520.8	521.2	521.1	521.0	521.0	520.9
5°	516.7	517.6	518.4	518.8	518.7	518.6	518.5	518.4
7.5°	511.6	512.4	513.2	513.5	513.4	513.4	513.3	513.2
10°	507.1	507.8	508.6	508.9	508.8	508.7	508.6	508.5
12.5°	501.2	501.9	502.4	502.7	502.7	502.7	502.7	502.6
15°	490.9	491.3	491.9	492.0	492.0	492.0	492.0	492.0
17.5°	478.9	479.5	480.1	480.1	479.7	479.2	478.8	478.3
20°	469.8	470.5	471.1	471.3	470.7	470.3	469.8	469.4
22.5°	459.5	459.9	460.4	460.4	460.1	459.8	459.5	459.1
25°	443.0	443.2	443.4	443.3	443.0	442.7	442.5	442.2
27.5°	425.6	425.6	425.7	425.6	425.3	425.0	424.7	424.5
30°	413.0	412.8	412.6	412.4	412.1	411.9	411.5	411.3
32.5°	400.2	399.8	399.5	399.1	398.6	398.1	397.6	397.1
35°	380.3	379.9	379.3	378.8	378.1	377.3	376.6	375.9
37.5°	359.4	358.7	358.0	357.5	357.0	356.7	356.2	355.8
40°	344.9	344.1	343.3	342.8	342.5	342.1	341.9	341.6
42.5°	330.6	329.8	329.0	328.5	328.1	327.6	327.3	326.8
45°	309.3	308.3	307.2	306.5	306.2	305.9	305.7	305.4
47.5°	287.0	285.9	284.7	283.8	283.2	282.6	282.0	281.3
50°	271.7	270.5	269.3	268.4	267.7	267.1	266.4	265.8
52.5°	256.8	255.7	254.7	253.9	253.2	252.4	251.7	251.0
55°	233.6	232.8	232.0	231.3	230.7	230.0	229.3	228.7
57.5°	210.7	209.6	208.6	207.9	207.5	207.1	206.8	206.4
60°	195.2	194.2	193.3	192.5	191.9	191.3	190.6	190.0
62.5°	180.2	179.1	178.2	177.5	177.0	176.5	175.9	175.5
65°	156.6	155.8	155.0	154.4	154.0	153.6	153.3	152.9
67.5°	134.1	133.4	132.7	132.2	132.1	131.8	131.6	131.3
70°	119.2	118.7	118.2	117.7	117.3	117.0	116.5	116.2
72.5°	105.2	104.6	104.0	103.5	103.2	102.8	102.4	102.0
75°	83.6	83.3	82.9	82.7	82.3	81.9	81.6	81.1
77.5°	63.7	63.5	63.3	63.1	62.9	62.6	62.3	62.1
80°	50.9	50.8	50.7	50.6	50.4	50.2	50.0	49.8
82.5°	38.9	38.7	38.6	38.4	38.4	38.4	38.3	38.3
85°	22.9	22.8	22.7	22.6	22.4	22.2	22.0	21.8
87.5°	10.1	10.2	10.3	10.3	10.2	10.1	10.0	9.8
90°	7.4	7.8	8.3	8.6	8.9	9.2	9.5	9.7
92.5°	16.7	17.3	17.9	18.3	18.5	18.6	18.9	19.1
95°	32.4	33.0	33.6	34.1	34.2	34.4	34.6	34.8
97.5°	50.7	51.4	51.9	52.3	52.3	52.5	52.6	52.7
100°	63.5	64.3	65.1	65.5	65.7	65.9	66.1	66.3
102.5°	76.5	77.4	78.3	78.8	79.1	79.4	79.6	79.9
105°	97.6	98.2	98.7	99.2	99.4	99.7	100.0	100.2
107.5°	120.5	120.7	121.0	121.2	121.2	121.1	121.1	121.1
110°	136.3	136.6	136.9	137.0	136.9	136.8	136.7	136.6





TEST NUMBER: P333345-940

CATALOG NUMBER: S125DIW-S375D470U940-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	152.2	152.3	152.5	152.5	152.3	152.1	151.9	151.8
115°	176.5	176.4	176.3	176.2	176.1	176.0	175.9	175.8
117.5°	200.7	200.7	200.8	200.7	200.4	200.0	199.6	199.2
120°	217.0	217.0	217.0	216.9	216.5	216.2	215.8	215.4
122.5°	233.1	233.0	232.9	232.7	232.5	232.2	231.8	231.6
125°	256.7	256.5	256.4	256.2	256.1	256.0	255.9	255.8
127.5°	280.2	280.1	280.0	279.8	279.6	279.5	279.3	279.1
130°	295.7	295.6	295.5	295.3	295.2	295.0	294.8	294.6
132.5°	310.5	310.4	310.3	310.2	310.0	309.7	309.4	309.2
135°	333.4	333.4	333.4	333.2	332.9	332.5	332.2	331.8
137.5°	355.7	355.8	356.0	355.8	355.3	354.9	354.4	353.9
140°	369.8	370.0	370.1	370.0	369.5	369.1	368.6	368.2
142.5°	383.5	383.6	383.7	383.5	383.1	382.6	382.2	381.7
145°	403.3	403.3	403.3	403.2	403.0	402.7	402.4	402.2
147.5°	421.7	422.0	422.1	422.0	421.3	420.7	420.1	419.5
150°	433.3	433.3	433.3	433.2	433.0	432.8	432.7	432.5
152.5°	444.1	444.3	444.4	444.4	444.1	443.8	443.4	443.1
155°	459.4	459.8	460.1	460.1	459.7	459.2	458.8	458.3
157.5°	472.8	473.1	473.5	473.4	472.8	472.2	471.6	471.0
160°	480.9	481.3	481.6	481.5	481.1	480.6	480.2	479.7
162.5°	488.5	488.8	489.3	489.3	488.7	488.2	487.7	487.1
165°	498.6	499.0	499.4	499.3	498.7	498.2	497.7	497.1
167.5°	506.2	506.8	507.3	507.3	506.7	506.1	505.6	505.1
170°	510.7	511.2	511.8	511.8	511.1	510.5	509.9	509.3
172.5°	514.0	514.5	515.1	515.1	514.4	513.9	513.4	512.8
175°	517.5	518.2	518.7	518.6	518.0	517.4	516.7	516.1
177.5°	519.2	519.7	520.1	520.0	519.6	519.1	518.5	518.1
180°	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3

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