

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: P333120-940

Luminaire Tested: **S125DIP-S375D365U940-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333120-940  
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-S375D365U940-4F0-1E-UDD-D4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 375 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2475.0 lumens  
Efficiency: N/A  
Efficacy: 121.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

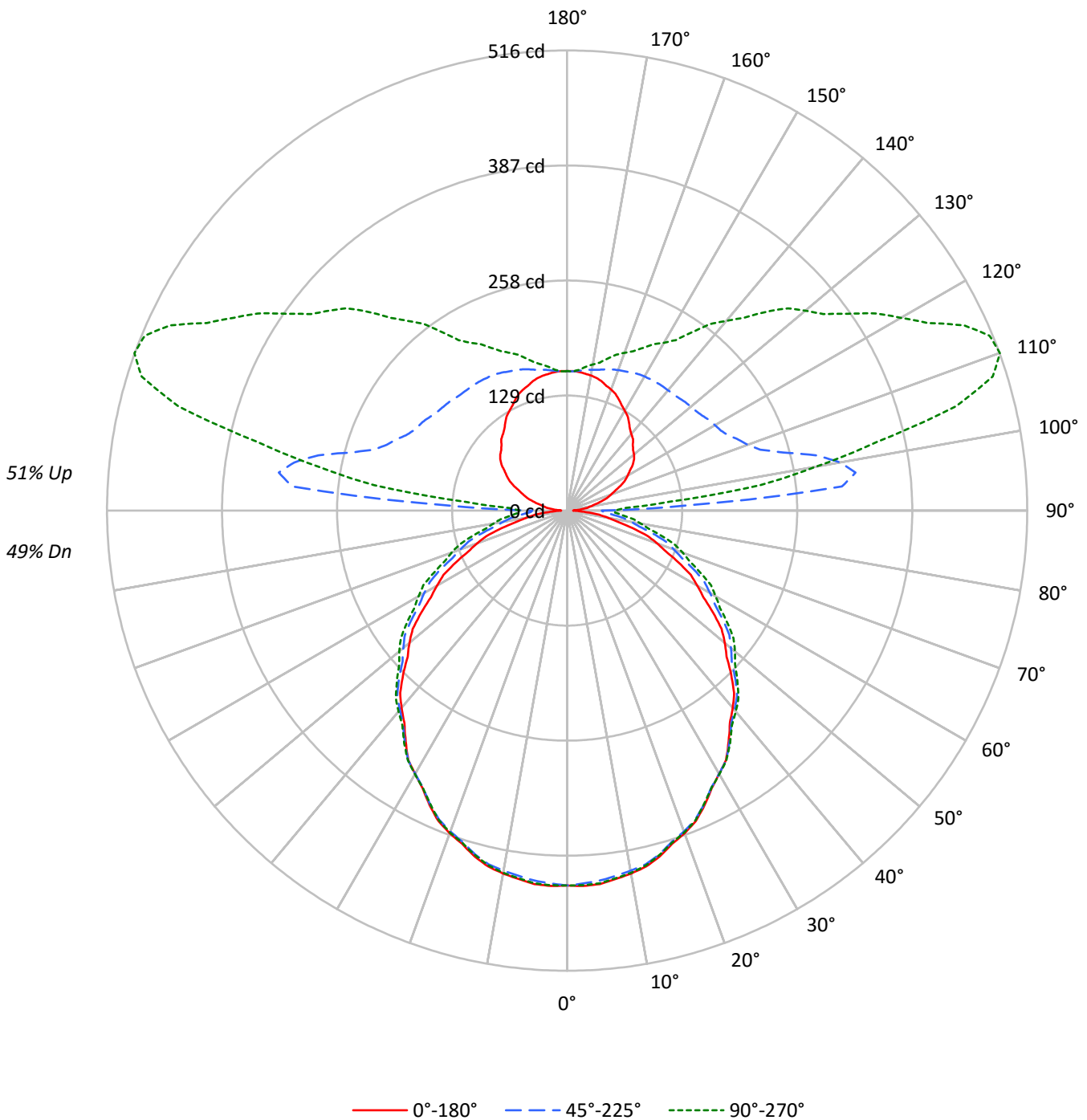
Input Watts (W): 20.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333120-940

CATALOG NUMBER: S125DIP-S375D365U940-4F0-1E-UDD-D4

### 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	99	99	99	99	83	83	83	69	69	69	56	56	56	49
1	97	92	88	84	89	85	82	78	72	69	67	59	57	56	48	47	45	40
2	88	80	74	68	81	74	68	64	62	58	55	52	49	46	42	40	38	33
3	80	70	63	57	73	65	58	53	55	50	46	45	42	39	37	34	32	28
4	73	62	54	48	67	57	50	45	49	43	39	40	36	33	33	30	27	23
5	67	55	47	41	61	51	44	38	43	38	33	36	32	28	29	26	24	20
6	62	49	41	35	57	46	38	33	39	33	29	33	28	25	27	23	21	18
7	57	44	36	31	52	41	34	29	35	30	25	30	25	22	24	21	18	16
8	53	40	32	27	49	38	30	26	32	26	22	27	23	19	22	19	16	14
9	49	37	29	24	45	34	27	23	29	24	20	25	20	17	21	17	15	13
10	46	34	26	22	42	31	25	20	27	22	18	23	19	16	19	16	13	11

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

	0°	45°	90°
0°	2715	2715	2715
5°	2721	2664	2673
10°	2700	2617	2613
15°	2669	2561	2537
20°	2626	2489	2461
25°	2574	2414	2367
30°	2511	2331	2282
35°	2453	2256	2203
40°	2394	2175	2125
45°	2326	2106	2054
50°	2263	2032	1993
55°	2185	1961	1921
60°	2101	1881	1846
65°	2014	1797	1764
70°	1915	1682	1678
75°	1755	1572	1572
80°	1547	1438	1457
85°	1353	1346	1421



TEST NUMBER: P333120-940

CATALOG NUMBER: S125DIP-S375D365U940-4F0-1E-UDD-D4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.7	1.6
10°-20°	112.8	4.6
20°-30°	167.8	6.8
30°-40°	198.8	8.0
40°-50°	205.5	8.3
50°-60°	189.3	7.6
60°-70°	153.0	6.2
70°-80°	102.5	4.1
80°-90°	54.0	2.2
90°-100°	143.1	5.8
100°-110°	265.5	10.7
110°-120°	243.3	9.8
120°-130°	193.6	7.8
130°-140°	152.3	6.2
140°-150°	112.9	4.6
150°-160°	79.0	3.2
160°-170°	46.5	1.9
170°-180°	15.1	0.6
0°-30°	320.4	12.9
0°-40°	519.2	21.0
0°-60°	914.0	36.9
0°-90°	1223.5	49.4
90°-120°	652.0	26.3
90°-150°	1110.9	44.9
90°-180°	1252.0	50.6
0°-180°	2475.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	420	420	420	420	420	
5°	420	419	417	420	420	40
15°	401	402	399	401	400	113
25°	365	366	364	365	363	168
35°	316	318	317	318	318	197
45°	260	264	267	269	270	201
55°	200	206	213	217	219	179
65°	138	147	157	163	165	137
75°	76	87	100	108	110	80
85°	23	36	51	59	63	24
90°	7	23	39	50	53	5
95°	16	47	309	166	116	15
105°	39	60	251	480	451	41
115°	66	82	200	419	491	65
125°	90	105	185	330	385	80
135°	104	125	178	272	315	81
145°	121	138	175	220	244	76
155°	137	148	171	193	201	63
165°	150	154	164	174	176	42
175°	156	156	157	159	158	15
180°	156	156	156	156	156	



TEST NUMBER: P333120-940

CATALOG NUMBER: S125DIP-S375D365U940-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	420.4	420.4	420.4	420.4	420.4	420.4	420.4	420.4	420.4	420.4	420.4
2.5°	421.3	421.2	421.1	420.9	420.8	420.4	419.9	419.4	418.9	418.4	418.9
5°	420.4	420.2	420.0	419.8	419.6	419.2	418.6	417.9	417.3	416.6	417.4
7.5°	416.6	416.6	416.5	416.4	416.3	416.0	415.4	414.6	414.0	413.3	414.0
10°	413.3	413.3	413.3	413.3	413.3	413.0	412.2	411.5	410.8	410.0	410.7
12.5°	408.8	408.8	408.8	408.9	409.0	408.8	408.2	407.6	407.0	406.4	406.9
15°	401.4	401.4	401.5	401.7	401.8	401.4	400.8	400.2	399.6	399.0	399.5
17.5°	391.8	392.0	392.2	392.4	392.5	392.4	391.7	391.0	390.4	389.8	390.2
20°	385.0	385.1	385.3	385.5	385.7	385.4	384.8	384.1	383.5	382.8	383.2
22.5°	377.0	377.4	377.6	378.0	378.4	378.1	377.4	376.7	375.9	375.2	375.6
25°	364.7	365.0	365.2	365.5	365.8	365.7	365.2	364.6	364.0	363.5	363.8
27.5°	351.1	351.4	351.9	352.2	352.7	352.6	352.0	351.3	350.7	350.1	350.3
30°	340.8	341.3	341.9	342.5	343.0	343.0	342.5	341.9	341.3	340.8	341.0
32.5°	331.6	332.1	332.5	333.1	333.5	333.5	333.1	332.7	332.3	331.9	332.1
35°	315.7	316.3	317.0	317.6	318.3	318.4	318.2	317.9	317.6	317.4	317.6
37.5°	299.8	300.3	301.0	301.5	302.1	302.4	302.3	302.2	302.1	302.0	302.4
40°	288.9	289.6	290.3	291.1	291.9	292.1	292.0	291.9	291.9	291.8	292.1
42.5°	277.1	277.9	278.9	279.9	280.8	281.4	281.6	281.8	282.0	282.2	282.7
45°	260.0	261.1	262.1	263.1	264.0	264.8	265.3	265.7	266.2	266.6	267.2
47.5°	242.6	243.6	244.5	245.5	246.4	247.3	248.1	248.8	249.6	250.4	251.4
50°	230.8	231.8	232.8	233.8	234.8	235.9	236.8	237.8	238.8	239.9	240.9
52.5°	218.3	219.5	220.7	221.9	223.2	224.4	225.6	226.9	228.1	229.3	230.4
55°	199.8	201.3	202.8	204.3	205.7	207.2	208.7	210.1	211.6	213.0	214.1
57.5°	181.1	182.8	184.6	186.4	188.2	189.8	191.5	193.2	194.9	196.5	197.7
60°	168.5	170.4	172.2	174.1	175.8	177.7	179.5	181.4	183.2	185.0	186.4
62.5°	156.3	158.2	160.1	161.8	163.7	165.6	167.6	169.5	171.6	173.5	175.0
65°	137.7	139.7	141.9	143.9	146.1	148.2	150.4	152.7	154.8	157.0	158.4
67.5°	120.0	122.1	124.0	126.1	128.1	130.3	132.5	134.7	137.0	139.2	140.9
70°	107.2	109.2	111.4	113.4	115.6	117.8	120.2	122.6	124.9	127.3	129.1
72.5°	94.6	96.8	99.0	101.1	103.3	105.8	108.3	110.9	113.5	116.1	118.1
75°	75.8	78.2	80.6	82.9	85.3	88.0	91.0	93.9	96.8	99.7	101.6
77.5°	57.8	60.5	63.3	66.0	68.8	71.5	74.4	77.2	80.0	82.8	84.9
80°	46.5	49.3	52.1	54.8	57.5	60.5	63.6	66.7	69.8	72.9	75.0
82.5°	36.4	39.2	42.2	45.0	47.9	51.0	54.1	57.3	60.5	63.7	65.6
85°	22.6	25.7	28.7	31.7	34.8	37.9	41.1	44.3	47.5	50.6	52.7
87.5°	12.9	15.9	19.0	22.0	25.1	28.3	31.4	34.7	37.8	41.1	43.2
90°	6.9	10.2	13.7	17.3	20.9	24.5	27.9	31.7	35.1	38.9	41.3
92.5°	9.8	13.3	18.6	25.3	33.4	45.6	66.0	98.0	132.5	134.1	116.7
95°	15.8	18.5	23.4	29.2	38.5	55.5	92.3	164.7	254.9	309.3	305.3
97.5°	22.1	24.6	28.5	34.2	42.5	55.4	80.6	134.5	228.5	326.2	375.7
100°	26.6	29.2	32.4	37.7	45.7	57.5	78.7	122.6	205.0	310.9	391.6
102.5°	31.6	33.7	36.5	42.0	49.2	60.8	79.9	117.2	187.1	285.7	379.7
105°	39.3	40.8	43.8	48.4	54.9	65.9	82.5	113.2	168.6	251.1	343.4
107.5°	46.9	48.8	51.5	55.4	61.8	71.7	87.7	114.4	160.0	227.0	306.9
110°	52.3	54.1	56.4	60.4	66.3	76.2	91.8	116.0	156.8	215.3	285.8



TEST NUMBER: P333120-940

CATALOG NUMBER: S125DIP-S375D365U940-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	58.1	59.7	61.5	65.3	70.9	80.5	95.4	118.4	155.5	208.0	269.8
115°	66.2	67.4	69.0	72.5	77.8	87.2	101.3	121.9	154.5	199.5	251.9
117.5°	73.3	74.6	76.1	79.4	85.2	94.1	107.4	126.3	154.8	194.3	240.3
120°	78.3	79.5	81.1	84.2	89.8	98.9	112.0	129.3	155.6	191.5	233.6
122.5°	83.3	84.1	85.2	88.2	94.2	103.2	116.2	132.6	156.1	188.9	227.7
125°	89.9	90.4	91.9	94.7	100.6	109.6	121.8	137.2	157.3	185.3	219.5
127.5°	94.7	95.6	97.5	101.0	107.3	116.2	127.7	141.7	159.1	182.7	211.9
130°	98.0	98.8	101.3	105.3	111.8	120.6	131.6	144.9	160.3	181.2	207.1
132.5°	100.1	101.4	104.3	109.0	115.8	124.5	135.3	147.4	161.6	179.9	202.7
135°	104.2	105.4	109.1	114.0	120.6	129.3	139.7	150.8	163.1	177.9	197.1
137.5°	109.2	110.1	113.6	118.6	125.0	133.8	143.0	153.4	164.8	176.7	192.3
140°	112.0	112.9	116.7	121.7	127.7	136.3	145.5	155.1	165.2	176.0	189.7
142.5°	115.5	116.1	119.6	124.6	130.2	138.2	146.9	155.8	165.4	175.7	187.6
145°	120.8	121.4	124.4	128.7	134.3	141.5	149.7	157.6	166.0	175.2	185.1
147.5°	125.9	126.3	129.0	133.1	138.0	144.4	151.6	158.7	166.4	174.4	182.9
150°	129.2	129.8	132.1	136.2	140.5	145.9	152.8	159.4	166.4	173.6	181.2
152.5°	132.8	133.1	135.1	138.7	142.9	147.7	154.1	160.0	166.1	172.6	179.4
155°	137.4	137.4	139.3	142.4	145.6	150.0	155.3	160.4	165.4	170.9	176.5
157.5°	141.6	141.5	143.0	145.7	148.5	151.9	156.4	160.7	164.6	168.9	173.7
160°	144.4	144.0	145.3	147.5	150.0	152.8	156.9	160.7	163.9	167.6	171.5
162.5°	146.6	146.3	147.6	149.5	151.5	153.8	157.5	160.5	163.1	166.1	169.4
165°	150.0	149.4	150.3	151.9	153.2	155.1	157.6	160.1	162.0	163.9	166.4
167.5°	152.3	151.9	152.6	153.4	154.3	155.5	157.6	159.3	160.2	161.7	163.5
170°	153.8	153.5	153.8	154.4	155.1	156.0	157.6	158.8	159.4	160.4	161.7
172.5°	154.8	154.3	154.5	155.2	155.5	156.0	157.3	158.4	158.5	158.9	159.9
175°	156.0	155.3	155.7	156.0	156.0	156.0	156.9	157.6	157.3	157.3	157.6
177.5°	156.6	156.0	156.0	156.3	156.0	156.0	156.6	156.9	156.3	156.3	156.6
180°	156.3	156.3	156.3	156.3	156.3	156.3	156.3	156.3	156.3	156.3	156.3



TEST NUMBER: P333120-940

CATALOG NUMBER: S125DIP-S375D365U940-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	420.4	420.4	420.4	420.4	420.4	420.4	420.4	420.4
2.5°	419.4	419.9	420.4	420.6	420.5	420.5	420.4	420.4
5°	418.1	418.8	419.5	419.9	419.8	419.7	419.6	419.5
7.5°	414.6	415.3	415.9	416.2	416.1	416.0	415.9	415.8
10°	411.3	412.0	412.6	412.9	412.8	412.7	412.6	412.5
12.5°	407.4	407.9	408.4	408.5	408.3	408.0	407.8	407.6
15°	400.0	400.6	401.1	401.2	400.8	400.5	400.1	399.8
17.5°	390.7	391.0	391.5	391.6	391.4	391.1	390.9	390.7
20°	383.4	383.7	384.0	384.1	384.1	384.1	384.1	384.1
22.5°	375.9	376.3	376.7	376.7	376.5	376.3	376.0	375.9
25°	364.2	364.6	365.0	364.9	364.4	364.0	363.6	363.1
27.5°	350.5	350.8	351.1	351.2	351.0	350.8	350.6	350.4
30°	341.2	341.3	341.5	341.6	341.5	341.4	341.3	341.3
32.5°	332.3	332.4	332.6	332.7	332.6	332.5	332.4	332.3
35°	317.9	318.2	318.4	318.5	318.5	318.5	318.5	318.5
37.5°	302.7	303.1	303.4	303.6	303.6	303.5	303.5	303.4
40°	292.5	292.8	293.3	293.6	293.7	293.9	294.1	294.3
42.5°	283.1	283.6	284.0	284.2	284.3	284.3	284.3	284.4
45°	268.0	268.6	269.2	269.6	269.7	269.7	269.8	269.9
47.5°	252.3	253.2	254.1	254.7	254.9	255.1	255.3	255.5
50°	241.8	242.9	243.9	244.5	244.8	245.0	245.3	245.6
52.5°	231.5	232.6	233.6	234.3	234.4	234.7	234.9	235.1
55°	215.1	216.1	217.1	217.8	218.1	218.5	218.9	219.3
57.5°	198.9	200.0	201.2	201.9	202.2	202.4	202.8	203.0
60°	187.8	189.1	190.6	191.4	191.6	191.9	192.2	192.4
62.5°	176.6	178.1	179.6	180.5	180.8	181.2	181.6	181.9
65°	159.8	161.1	162.5	163.4	163.7	164.1	164.5	164.9
67.5°	142.6	144.2	145.9	147.0	147.4	147.9	148.4	148.8
70°	130.8	132.6	134.3	135.5	136.0	136.5	137.1	137.7
72.5°	119.9	121.8	123.7	124.8	125.2	125.6	126.0	126.4
75°	103.4	105.2	107.1	108.2	108.7	109.1	109.6	110.0
77.5°	86.9	88.9	90.9	92.1	92.5	92.8	93.2	93.5
80°	77.0	79.0	81.0	82.2	82.6	82.9	83.3	83.6
82.5°	67.6	69.6	71.5	72.8	73.5	74.1	74.7	75.4
85°	54.8	56.7	58.8	60.1	60.8	61.6	62.3	63.0
87.5°	45.4	47.6	49.8	51.3	51.9	52.5	53.2	53.9
90°	43.7	46.1	48.5	50.6	51.2	51.8	52.8	53.4
92.5°	92.4	79.1	71.1	67.8	64.4	64.3	64.5	64.6
95°	260.7	214.8	178.1	152.9	131.2	122.3	120.5	116.1
97.5°	369.3	337.7	301.8	266.3	247.4	230.4	221.9	218.5
100°	417.9	404.3	373.8	342.2	321.0	298.9	287.8	283.3
102.5°	433.3	444.6	431.0	409.9	387.3	371.7	359.5	356.3
105°	420.9	465.9	481.6	479.4	469.9	460.1	454.5	451.4
107.5°	383.3	442.7	480.2	497.8	503.5	504.0	502.5	500.5
110°	355.6	417.2	463.4	491.4	506.2	512.8	515.7	516.4





TEST NUMBER: P333120-940

CATALOG NUMBER: S125DIP-S375D365U940-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	333.5	392.0	438.6	471.4	492.8	503.6	509.8	512.6
115°	305.5	356.0	400.8	436.3	461.5	477.1	486.4	491.2
117.5°	286.6	330.3	369.0	401.6	426.8	443.1	452.5	455.6
120°	276.2	315.6	351.8	380.6	404.5	420.1	429.2	432.2
122.5°	268.0	304.4	336.8	363.8	385.1	399.6	408.7	411.4
125°	256.0	289.6	318.5	342.1	360.3	373.6	381.0	384.7
127.5°	243.8	275.2	302.1	324.3	340.8	352.8	359.9	361.8
130°	236.4	265.4	291.2	312.6	328.9	339.7	346.4	348.7
132.5°	228.7	256.0	279.6	300.1	316.3	327.1	333.2	335.8
135°	218.4	241.3	262.7	281.5	295.8	306.7	312.8	315.1
137.5°	209.7	228.5	246.3	262.3	275.0	284.8	290.4	292.9
140°	204.8	220.7	236.1	250.1	262.2	270.6	275.8	277.7
142.5°	200.6	214.0	227.4	239.4	249.7	257.0	261.8	263.5
145°	195.4	205.6	215.8	224.7	232.6	238.4	242.2	243.9
147.5°	190.7	198.8	206.4	213.0	219.2	223.6	225.8	226.6
150°	188.2	195.1	201.1	206.8	211.6	215.4	216.9	217.2
152.5°	185.7	191.8	197.2	201.7	205.7	208.7	210.0	210.4
155°	181.8	186.9	191.3	194.7	197.9	200.1	201.1	201.3
157.5°	178.1	182.2	185.7	188.3	190.8	192.6	193.5	193.4
160°	175.6	178.7	181.8	184.0	186.3	187.8	188.4	188.2
162.5°	172.7	175.7	178.3	180.3	182.0	183.2	183.4	183.3
165°	168.9	171.1	173.0	174.6	175.8	176.5	176.5	176.5
167.5°	165.2	166.7	168.2	169.3	170.0	170.5	170.2	170.1
170°	163.3	164.2	165.1	165.8	166.4	166.7	166.7	166.4
172.5°	161.0	161.9	162.6	163.0	163.1	163.7	163.2	162.8
175°	158.5	158.5	159.2	159.2	159.2	159.4	158.8	158.5
177.5°	156.9	157.0	157.0	157.0	156.9	157.0	156.3	156.3
180°	156.3	156.3	156.3	156.3	156.3	156.3	156.3	156.3

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