

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: P242918

Luminaire Tested: **S125RDR-S375D840-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242918  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-32)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125RDR-S375D840-X4F0-XX-UDD-A-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1391.4 lumens  
Efficiency: N/A  
Efficacy: 119.9 lumens/watt  
Spacing Criteria (0/90/45): 1.4 / 1.21 / 1.48  
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')  
CIE Type: Direct

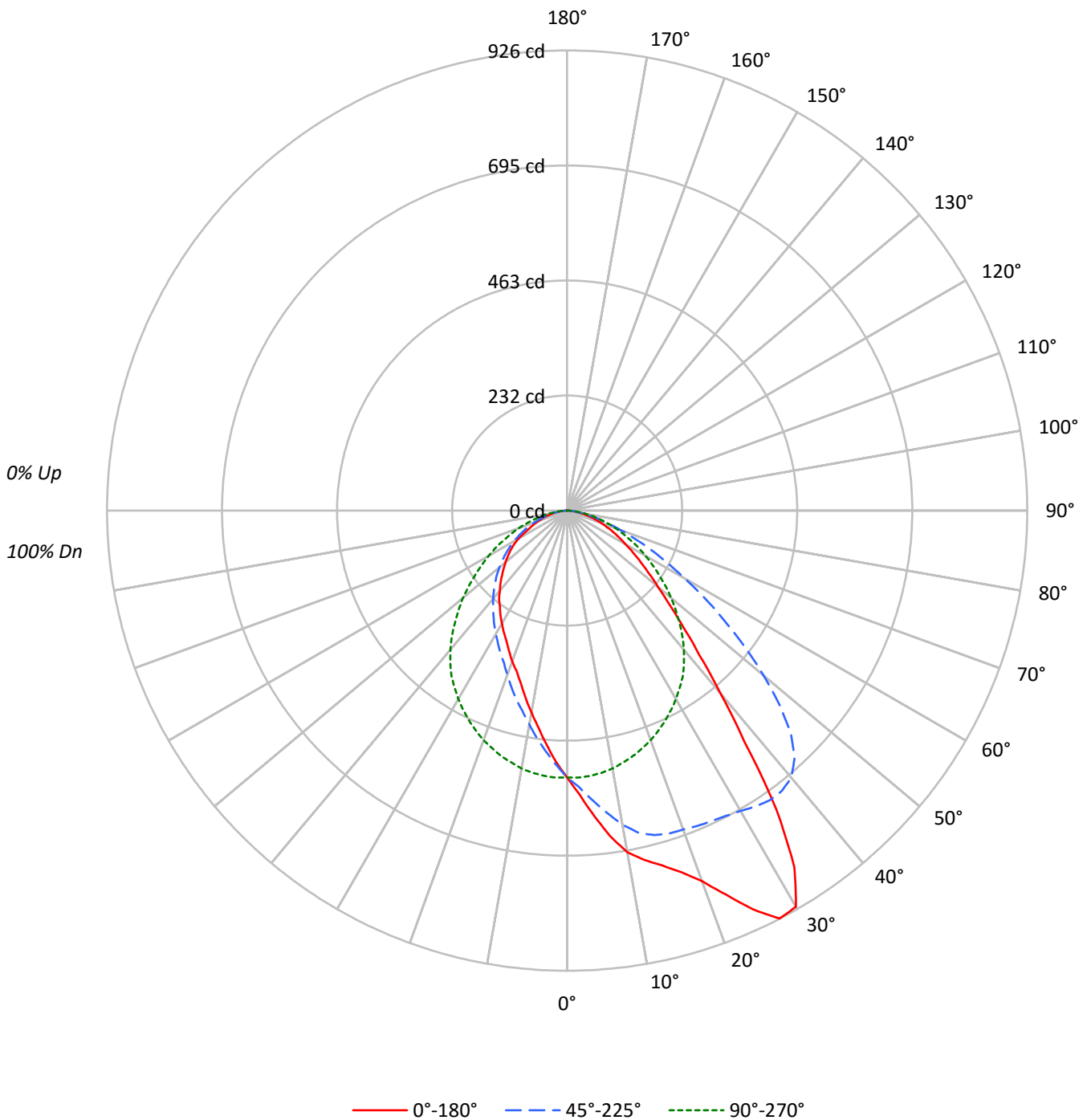
Input Watts (W): 11.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P242918

CATALOG NUMBER: S125RDR-S375D840-X4F0-XX-UDD-A-W

### Luminous Intensity Polar Plot





TEST NUMBER: P242918

CATALOG NUMBER: S125RDR-S375D840-X4F0-XX-UDD-A-W

**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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88					86				
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75					73				
3	92	83	75	69	90	81	74	69	78	72	67	76	70	66	73	69	65					63				
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57					55				
5	79	66	58	52	77	65	57	51	63	56	51	61	55	50	60	54	50					48				
6	73	60	52	45	71	59	51	45	57	50	45	56	49	44	54	49	44					42				
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39					37				
8	63	50	42	36	61	49	42	36	48	41	36	47	40	36	46	40	35					34				
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32					30				
10	55	42	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29					28				

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

	0°	90°	180°
0°	3817	3817	3817
5°	4391	3822	3375
10°	5037	3803	2978
15°	5441	3763	2647
20°	5999	3718	2445
25°	6943	3658	2268
30°	7555	3595	2153
35°	6373	3522	2047
40°	4451	3389	1956
45°	3302	3210	1866
50°	2633	3025	1789
55°	2234	2794	1721
60°	1930	2588	1611
65°	1720	2365	1386
70°	1511	2167	1263
75°	1307	1876	1186
80°	990	1580	990
85°	824	1240	938



TEST NUMBER: P242918

CATALOG NUMBER: S125RDR-S375D840-X4F0-XX-UDD-A-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.5	3.7
10°-20°	151.0	10.9
20°-30°	239.4	17.2
30°-40°	289.3	20.8
40°-50°	257.6	18.5
50°-60°	197.5	14.2
60°-70°	128.3	9.2
70°-80°	62.2	4.5
80°-90°	14.6	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	441.9	31.8
0°-40°	731.1	52.5
0°-60°	1186.3	85.3
0°-90°	1391.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1391.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	537	537	537	537	537	
5°	616	585	536	487	473	61
15°	739	676	511	394	360	212
25°	885	689	466	317	289	408
35°	734	712	406	258	236	445
45°	328	637	319	205	186	261
55°	180	387	226	150	139	163
65°	102	184	141	96	82	102
75°	48	65	68	48	43	51
85°	10	11	15	12	12	12
90°	0	0	0	0	0	



TEST NUMBER: P242918

CATALOG NUMBER: S125RDR-S375D840-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0
2.5°	571.9	571.4	572.3	569.9	570.1	566.3	566.3	563.5	559.7	556.9	555.5
5°	615.5	615.9	615.1	611.8	609.6	606.2	602.5	595.9	590.4	585.1	580.9
7.5°	660.0	660.5	657.6	656.9	651.2	647.7	639.3	630.7	623.2	613.3	606.2
10°	698.0	697.7	694.6	692.2	687.4	681.2	673.0	662.5	652.5	641.5	630.9
12.5°	720.0	719.3	718.9	715.8	711.4	706.1	699.5	689.1	676.3	664.0	651.2
15°	739.4	737.9	735.0	731.2	724.8	718.5	710.7	701.5	689.8	676.1	664.7
17.5°	762.8	763.0	758.6	754.6	746.2	735.6	724.2	710.1	695.1	681.2	669.7
20°	793.2	792.5	788.1	778.0	768.1	753.9	740.3	722.0	702.6	683.0	667.7
22.5°	836.8	834.9	830.2	816.1	799.4	780.2	757.5	734.1	709.6	686.7	665.5
25°	885.3	884.0	875.0	859.5	837.9	809.9	782.6	752.0	718.2	688.9	664.7
27.5°	925.5	922.8	914.7	900.1	878.9	848.7	811.0	771.4	731.2	692.7	659.4
30°	920.6	923.9	923.0	917.1	902.1	875.6	841.5	795.4	745.3	698.0	656.3
32.5°	851.4	854.3	864.2	880.3	885.1	878.5	855.1	813.5	761.2	705.7	653.9
35°	734.5	738.5	753.5	777.1	808.0	833.8	839.0	816.1	769.6	711.6	651.4
37.5°	586.0	611.8	621.9	645.9	694.4	741.4	782.2	791.4	766.3	710.3	648.6
40°	479.7	485.0	507.5	535.5	574.7	624.1	689.1	736.1	737.6	701.5	639.3
42.5°	393.3	400.3	414.0	435.0	467.1	516.5	584.2	649.9	685.4	677.2	627.2
45°	328.5	333.5	344.8	362.0	387.8	428.6	486.3	558.0	614.8	637.1	603.6
47.5°	277.8	280.4	290.8	304.7	324.5	355.4	402.3	467.1	534.8	580.0	571.2
50°	238.1	241.2	248.7	258.6	274.7	299.8	335.5	387.3	457.7	516.1	527.8
52.5°	207.2	209.7	213.6	222.9	235.4	253.3	280.4	326.0	387.6	450.6	481.5
55°	180.3	182.1	185.8	191.1	201.7	215.6	240.5	272.9	324.1	386.7	426.4
57.5°	157.4	158.3	160.5	165.8	173.5	183.9	202.8	232.4	269.4	328.3	371.9
60°	135.8	136.7	139.8	143.1	148.8	158.1	172.2	191.4	226.6	273.1	317.5
62.5°	118.6	119.0	119.9	123.2	128.1	134.7	145.1	159.8	186.1	225.5	266.7
65°	102.3	102.5	103.0	105.6	108.7	114.0	121.2	132.3	153.4	184.3	221.3
67.5°	86.0	86.4	88.0	88.8	92.6	95.2	99.9	108.7	125.0	147.0	177.0
70°	72.7	72.5	74.1	75.2	76.3	79.6	82.4	89.3	98.5	114.4	138.4
72.5°	60.4	59.7	60.2	60.4	61.9	63.9	66.8	70.3	76.9	86.6	103.6
75°	47.6	47.8	47.8	48.3	49.4	50.3	51.1	53.3	57.3	64.6	74.5
77.5°	35.7	35.3	36.4	36.4	37.3	38.4	39.0	39.9	41.4	44.8	50.7
80°	24.2	24.2	24.5	25.1	24.9	25.4	26.5	27.3	29.3	31.1	32.8
82.5°	17.2	17.0	17.2	17.2	17.2	17.6	17.9	17.9	18.3	19.0	20.1
85°	10.1	10.1	10.4	10.4	10.6	10.6	10.8	10.8	10.8	11.0	11.2
87.5°	4.8	4.6	4.4	4.4	4.6	5.1	4.8	4.6	4.6	4.6	4.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P242918

CATALOG NUMBER: S125RDR-S375D840-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0
2.5°	555.5	554.0	551.1	548.5	545.2	542.3	540.3	537.9	534.8	531.1	528.0
5°	576.3	571.4	565.0	559.5	552.5	546.9	541.2	535.7	530.2	523.1	517.0
7.5°	599.2	589.7	580.9	569.4	559.1	550.0	541.2	532.2	523.6	513.9	504.8
10°	619.9	607.8	594.3	578.9	564.8	551.4	539.0	526.9	514.1	502.9	490.7
12.5°	639.3	622.8	606.9	586.4	568.8	551.6	535.0	519.2	505.3	489.8	476.6
15°	649.5	634.0	616.8	593.0	569.4	549.6	531.1	511.4	494.5	478.2	463.6
17.5°	655.4	639.1	619.3	596.1	570.8	546.1	522.7	501.7	482.3	463.6	447.5
20°	652.8	637.1	616.6	594.8	567.2	541.2	515.4	491.6	469.3	449.3	431.9
22.5°	646.4	630.1	610.4	587.1	561.3	533.3	505.3	479.5	455.9	435.0	415.6
25°	640.0	617.9	597.6	575.2	550.2	522.9	494.5	466.5	441.6	420.4	399.7
27.5°	633.8	607.1	582.0	560.4	533.7	509.0	481.2	452.4	426.4	405.0	383.8
30°	624.8	593.9	565.5	540.1	515.2	492.0	466.0	438.0	411.1	388.9	367.3
32.5°	613.5	580.2	548.3	518.1	494.3	471.3	448.4	421.9	395.9	372.8	350.7
35°	604.5	562.6	528.6	497.6	470.9	448.6	427.5	405.9	379.6	355.8	334.4
37.5°	591.9	545.8	507.5	473.5	445.8	423.7	406.7	386.2	361.8	338.6	318.8
40°	580.7	527.3	484.3	450.8	421.3	397.7	382.0	365.3	343.5	322.1	302.2
42.5°	565.7	510.3	461.0	425.7	395.9	373.4	357.6	343.5	326.0	306.2	284.6
45°	545.2	487.4	436.9	399.5	369.5	347.2	332.4	319.4	305.5	287.0	268.5
47.5°	520.7	465.6	412.5	371.2	342.4	321.4	306.9	296.1	285.9	269.8	251.1
50°	490.1	437.4	385.8	346.1	314.8	295.2	281.7	273.6	264.5	250.2	235.2
52.5°	453.9	408.3	358.0	317.2	288.1	270.1	257.3	249.1	242.1	231.0	216.9
55°	415.6	374.3	328.0	291.2	264.1	245.6	233.2	225.5	221.1	211.2	200.0
57.5°	372.1	340.4	298.5	262.6	238.1	219.6	210.3	203.5	198.4	191.1	182.8
60°	326.3	305.5	269.0	235.2	213.2	195.8	187.6	182.1	177.5	171.5	165.3
62.5°	279.8	266.1	235.4	207.7	187.8	173.9	166.4	161.6	156.1	152.6	146.6
65°	239.2	225.7	203.7	181.0	162.3	150.6	145.1	140.6	137.3	132.9	128.7
67.5°	194.2	188.0	171.7	154.8	141.1	129.8	125.0	121.5	117.7	115.1	112.0
70°	153.4	150.8	140.0	129.6	117.1	110.0	105.6	104.3	99.4	96.8	94.8
72.5°	117.3	116.4	111.3	104.9	97.0	91.0	87.1	85.5	82.9	80.9	79.8
75°	85.3	85.8	84.7	80.0	76.7	72.7	69.2	68.3	66.1	64.4	63.3
77.5°	58.2	60.4	60.0	59.7	58.2	55.3	53.8	53.1	50.7	50.0	49.8
80°	37.0	39.5	41.7	41.4	41.0	40.3	39.2	38.6	37.5	36.8	36.4
82.5°	21.6	23.8	25.6	27.1	27.1	26.5	25.8	25.6	25.6	25.1	25.1
85°	11.7	12.1	12.8	14.3	15.4	15.7	15.4	15.2	14.5	14.8	15.0
87.5°	5.1	5.1	5.3	5.3	5.1	6.2	6.8	7.1	6.6	6.2	5.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P242918

CATALOG NUMBER: S125RDR-S375D840-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0
2.5°	525.8	522.7	520.5	516.1	513.0	511.7	509.2	508.6	511.0	509.2	509.0
5°	512.3	505.9	500.9	495.8	490.3	486.8	481.5	480.6	479.3	477.3	476.8
7.5°	496.7	488.7	482.8	474.4	467.6	462.1	455.5	452.8	451.5	449.1	445.1
10°	480.8	470.9	462.1	453.7	444.7	437.4	430.8	425.7	422.4	419.3	418.0
12.5°	465.2	455.0	443.1	432.5	422.2	413.8	406.3	403.4	399.7	395.9	392.4
15°	448.8	435.4	423.0	411.4	402.8	393.9	386.9	382.0	376.5	375.0	369.0
17.5°	431.4	418.9	404.3	391.7	382.0	372.8	365.1	359.3	355.1	349.2	346.3
20°	415.3	399.7	385.6	374.3	363.3	351.8	343.9	339.3	335.3	330.7	328.5
22.5°	398.1	382.9	368.4	354.7	343.5	332.2	327.2	322.3	317.7	313.5	310.4
25°	381.4	366.0	350.7	337.1	325.4	317.2	310.6	305.1	302.7	298.5	295.4
27.5°	364.6	348.3	332.9	318.6	309.5	301.4	296.1	291.7	287.0	283.3	280.4
30°	348.5	331.8	314.6	303.8	294.1	286.4	280.4	276.2	272.9	269.6	267.6
32.5°	332.4	315.0	300.3	288.4	279.3	272.9	266.7	262.8	259.3	255.5	253.1
35°	315.0	297.4	285.0	273.6	264.5	258.4	254.2	248.4	245.6	242.9	240.5
37.5°	299.4	282.6	269.0	259.0	250.7	244.7	239.2	236.3	232.6	230.4	228.4
40°	281.7	266.7	254.6	244.0	238.3	231.5	226.4	222.4	219.8	216.7	214.5
42.5°	265.9	252.2	240.5	231.3	223.8	218.2	213.4	209.4	205.9	203.9	202.2
45°	251.1	237.2	225.7	216.9	210.3	204.8	199.7	197.7	193.3	190.7	189.8
47.5°	235.7	223.1	211.9	203.7	196.9	191.8	186.9	182.5	180.3	177.7	176.4
50°	220.0	208.1	197.7	189.8	183.2	177.5	173.1	170.4	167.1	164.7	162.9
52.5°	204.4	193.6	183.2	175.7	170.2	164.5	159.4	156.7	153.7	152.3	151.2
55°	189.6	177.9	169.1	161.6	155.6	150.3	145.7	143.1	141.1	139.5	139.1
57.5°	172.6	163.1	154.8	148.1	141.8	136.7	132.5	130.1	128.3	128.1	126.5
60°	156.1	147.7	140.2	132.9	127.6	123.0	119.5	116.6	114.9	114.6	114.2
62.5°	139.5	131.6	124.8	118.6	114.0	109.6	106.3	103.0	102.1	100.7	99.6
65°	123.2	116.0	110.2	105.2	100.1	96.3	93.0	91.0	88.6	87.3	84.9
67.5°	107.1	101.2	95.7	91.5	87.3	83.6	80.7	77.8	76.1	75.0	73.0
70°	91.3	86.9	81.3	76.7	73.6	70.8	68.6	65.3	64.2	63.3	62.4
72.5°	76.3	72.5	68.1	64.6	61.5	58.9	56.2	55.1	54.0	53.1	52.7
75°	62.4	58.6	54.7	52.0	49.8	47.6	46.3	45.2	44.8	44.5	43.6
77.5°	48.5	46.3	43.0	40.6	39.0	38.1	36.8	36.4	36.6	35.5	35.3
80°	35.1	33.9	31.3	30.4	29.3	28.4	27.8	26.7	25.6	25.1	24.5
82.5°	23.8	22.7	22.0	20.5	19.6	19.2	18.5	18.3	18.7	18.1	17.9
85°	13.9	12.8	12.3	12.1	11.7	12.1	11.9	11.7	11.5	11.2	11.5
87.5°	5.5	5.5	5.3	5.7	5.1	5.3	5.3	5.1	5.1	5.1	4.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TEST NUMBER: P242918

CATALOG NUMBER: S125RDR-S375D840-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	537.0	537.0	537.0	537.0
2.5°	508.8	506.4	505.7	506.6
5°	474.6	472.4	473.5	473.1
7.5°	445.8	442.9	439.6	440.5
10°	415.1	412.9	411.6	412.7
12.5°	389.3	388.2	387.1	386.2
15°	366.4	363.7	362.6	359.8
17.5°	344.3	343.5	340.6	338.6
20°	325.2	324.3	321.4	323.2
22.5°	309.3	307.1	306.6	305.5
25°	294.5	291.7	290.6	289.2
27.5°	279.5	278.0	276.4	276.0
30°	265.0	263.4	262.3	262.3
32.5°	252.0	250.9	249.8	249.6
35°	239.4	237.6	237.2	235.9
37.5°	226.2	224.6	224.6	224.9
40°	213.6	212.5	212.3	210.8
42.5°	200.2	199.7	198.8	198.4
45°	188.3	186.7	186.7	185.6
47.5°	175.7	174.4	174.6	173.3
50°	163.1	162.5	162.3	161.8
52.5°	150.6	150.3	151.5	150.3
55°	139.5	138.9	140.2	138.9
57.5°	126.5	126.1	127.4	126.5
60°	113.8	112.4	113.1	113.3
62.5°	98.5	97.9	98.3	97.0
65°	84.4	83.8	82.9	82.4
67.5°	73.4	71.4	71.4	71.9
70°	61.1	61.1	60.8	60.8
72.5°	52.5	52.2	51.8	51.6
75°	43.6	43.9	43.4	43.2
77.5°	34.2	33.1	33.5	33.1
80°	24.5	24.2	24.9	24.2
82.5°	18.1	17.9	18.1	17.6
85°	11.7	11.5	11.2	11.5
87.5°	5.1	4.8	4.8	4.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)