

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: HALO COMMERCIAL

Report Number: P238333

Luminaire Tested: **PRS610D010-S6M12-61SWWC-4000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P238333  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-25)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS610D010-S6M12-61SWWC-4000K  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, WITH 6" WALL WASH DISTRIBUTION, WW TRIM SPECULAR  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 733.8 lumens  
Efficiency: N/A  
Efficacy: 73.4 lumens/watt  
Spacing Criteria (0/90/45): 0.98 / 0.94 / 1.03  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
CIE Type: Direct

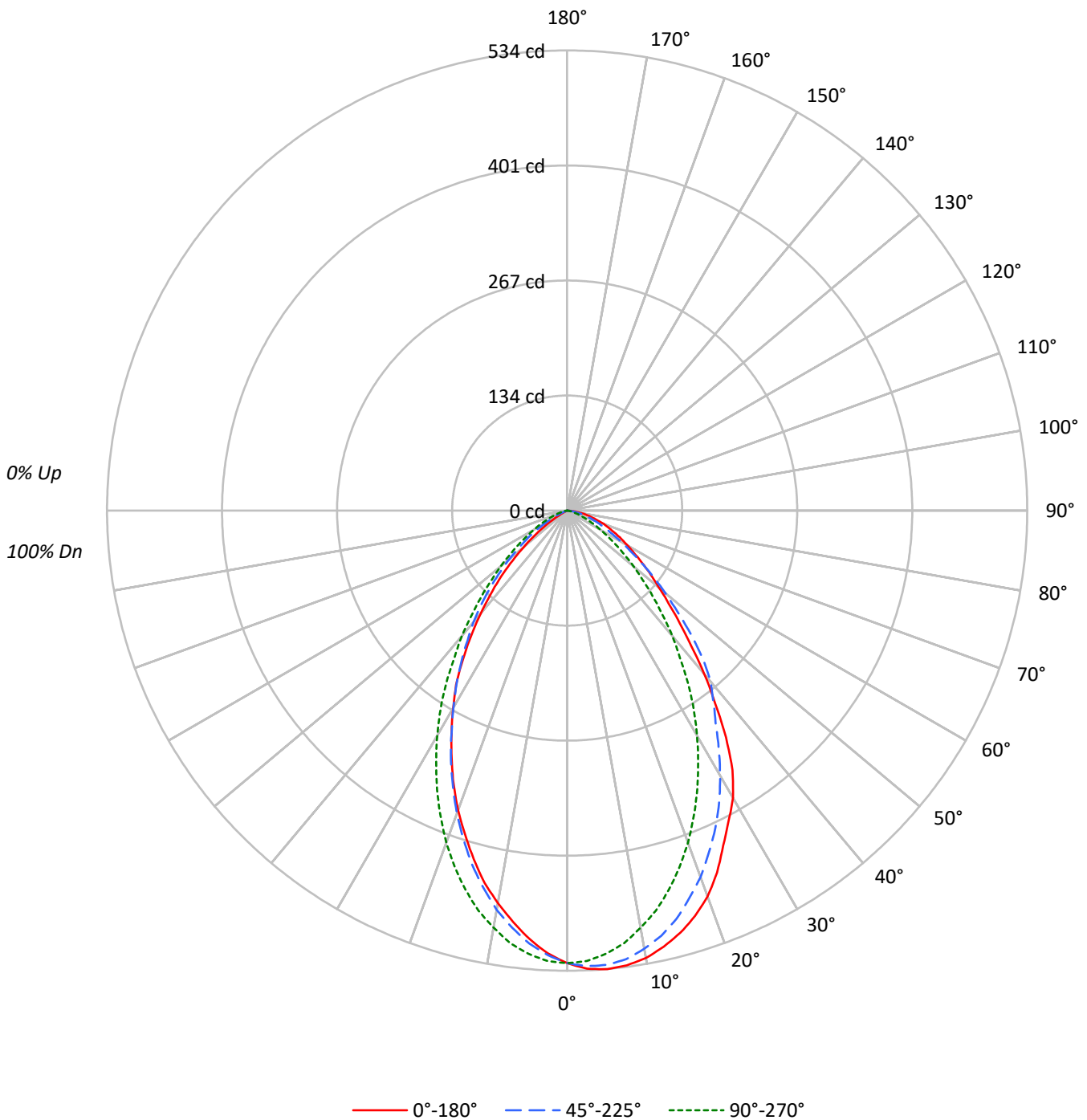
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71					71			
4	91	81	74	69	89	80	73	68	78	72	67	75	71	67	73	69	66	64					64			
5	85	74	67	62	83	73	66	61	71	65	61	69	64	60	68	63	60	58					58			
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52					52			
7	74	63	56	50	73	62	55	50	61	55	50	60	54	50	58	53	49	48					48			
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44					44			
9	66	54	47	42	65	54	47	42	53	47	42	52	46	42	51	46	42	40					40			
10	62	51	44	39	61	50	44	39	49	43	39	48	43	39	48	42	39	37					37			

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

	0°	90°	180°
0°	22613	22613	22613
5°	23088	22315	21580
10°	23049	21484	20220
15°	22613	20308	18668
20°	21833	18777	16953
25°	20366	16965	15074
30°	19141	14985	13155
35°	16888	12862	11085
40°	13922	10679	8779
45°	11265	8543	6600
50°	9331	6732	4401
55°	7987	5149	2387
60°	6941	3858	689
65°	6184	2842	0
70°	5640	1876	0
75°	4791	1164	0
80°	4190	744	0
85°	2964	494	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.6	6.6
10°-20°	128.3	17.5
20°-30°	166.7	22.7
30°-40°	160.2	21.8
40°-50°	117.9	16.1
50°-60°	67.7	9.2
60°-70°	30.7	4.2
70°-80°	11.4	1.6
80°-90°	2.2	0.3
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°	343.6	46.8
0°-40°	503.9	68.7
0°-60°	689.5	94.0
0°-90°	733.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	733.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	525	525	525	525	525	
5°	534	529	516	504	499	51
15°	507	490	456	426	419	142
25°	429	407	357	319	317	198
35°	321	300	245	214	211	199
45°	185	203	140	125	108	144
55°	106	104	69	56	32	96
65°	61	49	28	12	0	61
75°	29	20	7	0	0	31
85°	6	3	1	0	0	7
90°	0	0	0	0	0	



TEST NUMBER: P238333

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	525.2	525.2	525.2	525.2	525.2	525.2	525.2	525.2	525.2	525.2	525.2
2.5°	532.2	532.2	532.2	531.2	531.2	532.2	531.2	531.2	530.2	530.2	529.2
5°	534.2	534.2	534.2	534.2	533.2	533.2	533.2	532.2	531.2	530.2	529.2
7.5°	532.2	532.2	532.2	532.2	531.2	531.2	530.2	529.2	528.2	526.2	525.2
10°	527.2	527.2	527.2	526.2	525.2	524.2	524.2	522.2	520.2	518.2	516.3
12.5°	518.2	518.2	517.2	517.2	515.3	515.3	514.3	512.3	510.3	508.3	505.3
15°	507.3	506.3	506.3	505.3	503.3	502.3	501.3	498.3	495.4	492.4	490.4
17.5°	493.4	492.4	491.4	490.4	487.4	485.4	484.4	481.4	478.5	475.5	471.5
20°	476.5	475.5	474.5	472.5	470.5	468.5	466.5	463.5	459.6	455.6	452.6
22.5°	454.6	453.6	452.6	451.6	448.6	446.6	445.6	442.6	438.7	434.7	429.7
25°	428.7	428.7	429.7	426.7	424.7	422.7	422.7	419.8	415.8	410.8	406.8
27.5°	405.8	405.8	403.9	401.9	398.9	396.9	395.9	392.9	390.9	386.9	382.0
30°	385.0	384.0	382.0	380.0	377.0	374.0	371.0	367.0	363.1	359.1	355.1
32.5°	357.1	356.1	356.1	356.1	353.1	352.1	350.1	345.2	340.2	333.2	327.3
35°	321.3	320.3	319.3	320.3	322.3	323.3	324.3	322.3	317.3	309.4	300.4
37.5°	282.5	283.5	284.5	285.5	288.5	290.5	289.5	293.4	292.4	287.5	278.5
40°	247.7	247.7	248.7	251.7	254.6	255.6	256.6	260.6	260.6	261.6	258.6
42.5°	212.9	215.9	216.8	218.8	221.8	223.8	225.8	229.8	230.8	234.8	232.8
45°	185.0	187.0	189.0	191.0	194.0	196.0	197.0	199.9	202.9	204.9	202.9
47.5°	160.1	161.1	162.1	164.1	167.1	168.1	170.1	173.1	176.1	175.1	173.1
50°	139.3	140.3	140.3	143.2	145.2	146.2	146.2	150.2	150.2	150.2	148.2
52.5°	122.3	122.3	123.3	124.3	126.3	126.3	128.3	130.3	128.3	127.3	125.3
55°	106.4	106.4	107.4	108.4	108.4	109.4	110.4	110.4	108.4	106.4	104.4
57.5°	92.5	93.5	93.5	94.5	95.5	94.5	95.5	93.5	91.5	89.5	86.5
60°	80.6	81.6	81.6	82.6	82.6	82.6	81.6	79.6	76.6	74.6	71.6
62.5°	70.6	70.6	70.6	70.6	70.6	70.6	69.6	67.6	64.7	62.7	59.7
65°	60.7	60.7	60.7	60.7	59.7	59.7	58.7	56.7	53.7	51.7	48.7
67.5°	51.7	51.7	51.7	51.7	50.7	49.7	48.7	47.7	44.8	42.8	40.8
70°	44.8	43.8	43.8	42.8	41.8	40.8	40.8	38.8	36.8	34.8	32.8
72.5°	35.8	35.8	35.8	35.8	33.8	33.8	32.8	30.8	28.8	27.9	25.9
75°	28.8	28.8	28.8	27.9	26.9	26.9	25.9	24.9	22.9	21.9	19.9
77.5°	22.9	22.9	22.9	21.9	20.9	19.9	19.9	18.9	16.9	15.9	14.9
80°	16.9	16.9	15.9	14.9	14.9	13.9	13.9	12.9	11.9	10.9	9.9
82.5°	10.9	10.9	10.9	9.9	9.9	9.0	9.0	9.0	8.0	7.0	6.0
85°	6.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	3.0
87.5°	1.0	1.0	1.0	1.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	525.2	525.2	525.2	525.2	525.2	525.2	525.2	525.2	525.2	525.2	525.2
2.5°	529.2	528.2	527.2	527.2	526.2	526.2	525.2	524.2	523.2	523.2	522.2
5°	528.2	527.2	525.2	524.2	523.2	522.2	521.2	519.2	518.2	516.3	515.3
7.5°	523.2	521.2	519.2	517.2	516.3	515.3	512.3	510.3	508.3	506.3	504.3
10°	514.3	512.3	509.3	507.3	505.3	503.3	501.3	497.4	494.4	491.4	488.4
12.5°	502.3	499.3	496.4	492.4	491.4	489.4	486.4	482.4	479.4	475.5	471.5
15°	487.4	482.4	480.4	475.5	473.5	471.5	468.5	464.5	460.5	455.6	451.6
17.5°	467.5	462.5	460.5	455.6	453.6	451.6	446.6	442.6	438.7	433.7	428.7
20°	447.6	443.6	438.7	433.7	431.7	429.7	423.7	419.8	415.8	409.8	405.8
22.5°	424.7	419.8	414.8	410.8	407.8	405.8	400.9	395.9	389.9	384.0	379.0
25°	401.9	395.9	390.9	385.9	382.0	380.0	374.0	368.0	362.1	357.1	351.1
27.5°	376.0	371.0	365.1	358.1	355.1	352.1	346.2	339.2	334.2	329.2	323.3
30°	349.1	344.2	337.2	331.2	328.3	325.3	319.3	313.3	308.4	301.4	295.4
32.5°	322.3	317.3	311.3	305.4	303.4	299.4	292.4	287.5	280.5	273.5	268.6
35°	296.4	292.4	286.5	279.5	274.5	270.6	263.6	255.6	249.7	244.7	239.7
37.5°	272.5	266.6	258.6	249.7	244.7	240.7	231.8	225.8	220.8	214.9	212.9
40°	247.7	237.7	228.8	219.8	215.9	210.9	203.9	197.9	194.0	190.0	185.0
42.5°	223.8	210.9	200.9	193.0	188.0	185.0	177.1	173.1	168.1	163.1	161.1
45°	197.0	187.0	175.1	167.1	163.1	160.1	153.2	148.2	143.2	140.3	137.3
47.5°	170.1	162.1	151.2	142.2	139.3	136.3	131.3	125.3	121.4	118.4	115.4
50°	143.2	137.3	131.3	121.4	118.4	117.4	111.4	106.4	102.5	100.5	97.5
52.5°	121.4	116.4	110.4	103.4	100.5	97.5	93.5	88.5	86.5	83.6	81.6
55°	100.5	95.5	92.5	87.5	83.6	81.6	77.6	74.6	71.6	68.6	66.6
57.5°	82.6	79.6	76.6	72.6	70.6	68.6	64.7	61.7	58.7	55.7	53.7
60°	68.6	65.7	62.7	59.7	57.7	56.7	52.7	49.7	46.8	44.8	42.8
62.5°	56.7	54.7	51.7	48.7	46.8	45.8	42.8	39.8	36.8	35.8	33.8
65°	46.8	44.8	41.8	38.8	38.8	36.8	33.8	31.8	29.8	27.9	25.9
67.5°	38.8	35.8	33.8	31.8	29.8	28.8	26.9	24.9	22.9	20.9	19.9
70°	30.8	28.8	26.9	23.9	22.9	21.9	19.9	17.9	16.9	14.9	13.9
72.5°	23.9	21.9	19.9	17.9	16.9	15.9	14.9	12.9	11.9	10.9	9.9
75°	18.9	16.9	14.9	12.9	12.9	11.9	10.9	9.0	8.0	7.0	7.0
77.5°	12.9	11.9	10.9	9.0	9.0	8.0	7.0	6.0	6.0	5.0	4.0
80°	9.0	8.0	7.0	6.0	5.0	5.0	4.0	4.0	3.0	3.0	2.0
82.5°	6.0	5.0	4.0	3.0	3.0	3.0	2.0	2.0	2.0	1.0	1.0
85°	3.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	525.2	525.2	525.2	525.2	525.2	525.2	525.2	525.2	525.2	525.2	525.2
2.5°	521.2	520.2	519.2	519.2	519.2	518.2	517.2	516.3	516.3	515.3	515.3
5°	513.3	511.3	510.3	509.3	509.3	507.3	506.3	505.3	504.3	503.3	502.3
7.5°	501.3	499.3	497.4	495.4	495.4	493.4	491.4	490.4	488.4	487.4	486.4
10°	486.4	484.4	481.4	479.4	477.5	476.5	473.5	471.5	470.5	467.5	466.5
12.5°	467.5	464.5	461.5	459.6	458.6	455.6	452.6	451.6	448.6	446.6	445.6
15°	447.6	443.6	439.7	438.7	436.7	433.7	430.7	427.7	425.7	422.7	422.7
17.5°	424.7	419.8	416.8	413.8	412.8	408.8	404.8	402.9	399.9	397.9	396.9
20°	399.9	394.9	390.9	388.9	385.9	383.0	379.0	377.0	374.0	372.0	371.0
22.5°	373.0	367.0	363.1	361.1	359.1	354.1	351.1	349.1	346.2	344.2	343.2
25°	345.2	341.2	336.2	333.2	331.2	326.3	323.3	321.3	319.3	317.3	316.3
27.5°	317.3	311.3	306.4	304.4	302.4	299.4	294.4	291.4	290.5	289.5	288.5
30°	289.5	284.5	279.5	276.5	273.5	270.6	267.6	264.6	263.6	261.6	259.6
32.5°	263.6	258.6	253.6	251.7	249.7	244.7	241.7	239.7	238.7	234.8	233.8
35°	236.7	232.8	229.8	227.8	226.8	222.8	220.8	215.9	213.9	211.9	210.9
37.5°	208.9	204.9	201.9	201.9	199.9	197.9	196.0	194.0	190.0	189.0	188.0
40°	182.0	179.0	177.1	175.1	175.1	174.1	172.1	172.1	169.1	167.1	164.1
42.5°	157.2	155.2	153.2	153.2	152.2	151.2	149.2	149.2	147.2	145.2	142.2
45°	134.3	131.3	130.3	130.3	129.3	128.3	127.3	127.3	125.3	123.3	121.4
47.5°	113.4	111.4	110.4	109.4	108.4	108.4	107.4	106.4	105.4	103.4	101.5
50°	95.5	93.5	92.5	91.5	91.5	90.5	89.5	87.5	87.5	84.5	82.6
52.5°	79.6	78.6	76.6	75.6	74.6	73.6	72.6	71.6	69.6	67.6	66.6
55°	64.7	62.7	61.7	60.7	59.7	58.7	57.7	56.7	55.7	52.7	50.7
57.5°	51.7	49.7	48.7	48.7	47.7	45.8	44.8	43.8	41.8	39.8	36.8
60°	40.8	39.8	37.8	37.8	36.8	34.8	33.8	31.8	29.8	26.9	24.9
62.5°	31.8	30.8	28.8	27.9	27.9	25.9	23.9	21.9	19.9	17.9	14.9
65°	23.9	22.9	21.9	20.9	19.9	17.9	15.9	13.9	11.9	9.0	6.0
67.5°	17.9	16.9	14.9	14.9	13.9	11.9	9.9	8.0	5.0	3.0	1.0
70°	12.9	11.9	9.9	9.0	9.0	7.0	5.0	3.0	0.0	0.0	0.0
72.5°	9.0	8.0	6.0	5.0	5.0	3.0	1.0	0.0	0.0	0.0	0.0
75°	6.0	5.0	3.0	3.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P238333

CATALOG NUMBER: PRS610D010-S6M12-61SWWC-4000K

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	525.2	525.2	525.2	525.2	525.2	525.2	525.2	525.2
2.5°	515.3	514.3	514.3	514.3	513.3	514.3	514.3	514.3
5°	501.3	501.3	500.3	500.3	500.3	499.3	499.3	499.3
7.5°	484.4	484.4	483.4	483.4	483.4	482.4	481.4	481.4
10°	465.5	465.5	464.5	464.5	464.5	463.5	462.5	462.5
12.5°	443.6	443.6	443.6	442.6	442.6	442.6	441.6	442.6
15°	421.8	420.8	420.8	419.8	418.8	418.8	418.8	418.8
17.5°	395.9	394.9	394.9	393.9	394.9	393.9	393.9	393.9
20°	369.0	369.0	369.0	369.0	369.0	369.0	370.0	370.0
22.5°	343.2	342.2	343.2	342.2	342.2	343.2	343.2	344.2
25°	316.3	315.3	315.3	316.3	316.3	316.3	317.3	317.3
27.5°	286.5	288.5	288.5	289.5	289.5	290.5	291.4	290.5
30°	260.6	260.6	260.6	261.6	262.6	263.6	264.6	264.6
32.5°	232.8	233.8	234.8	233.8	234.8	236.7	238.7	239.7
35°	209.9	207.9	206.9	206.9	207.9	208.9	209.9	210.9
37.5°	185.0	184.0	183.0	181.0	182.0	183.0	183.0	183.0
40°	162.1	160.1	159.2	158.2	157.2	156.2	156.2	156.2
42.5°	140.3	138.3	136.3	136.3	133.3	132.3	132.3	131.3
45°	119.4	117.4	115.4	115.4	112.4	109.4	108.4	108.4
47.5°	99.5	96.5	95.5	94.5	91.5	88.5	86.5	85.5
50°	80.6	77.6	76.6	75.6	72.6	68.6	66.6	65.7
52.5°	63.7	60.7	58.7	57.7	53.7	50.7	48.7	47.7
55°	47.7	45.8	43.8	42.8	38.8	34.8	31.8	31.8
57.5°	34.8	30.8	29.8	28.8	24.9	21.9	18.9	17.9
60°	22.9	18.9	17.9	16.9	12.9	9.9	9.0	8.0
62.5°	11.9	9.0	8.0	7.0	5.0	3.0	2.0	2.0
65°	4.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)