

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: P238373

Luminaire Tested: **PRS610D010-S6M12-61SWWMB**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P238373
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-28)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS610D010-S6M12-61SWWMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, WITH 6" WALL WASH DISTRIBUTION, WW TRIM MATTE BLACK
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 674.0 lumens
Efficiency: N/A
Efficacy: 67.4 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.02 / 1.12
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

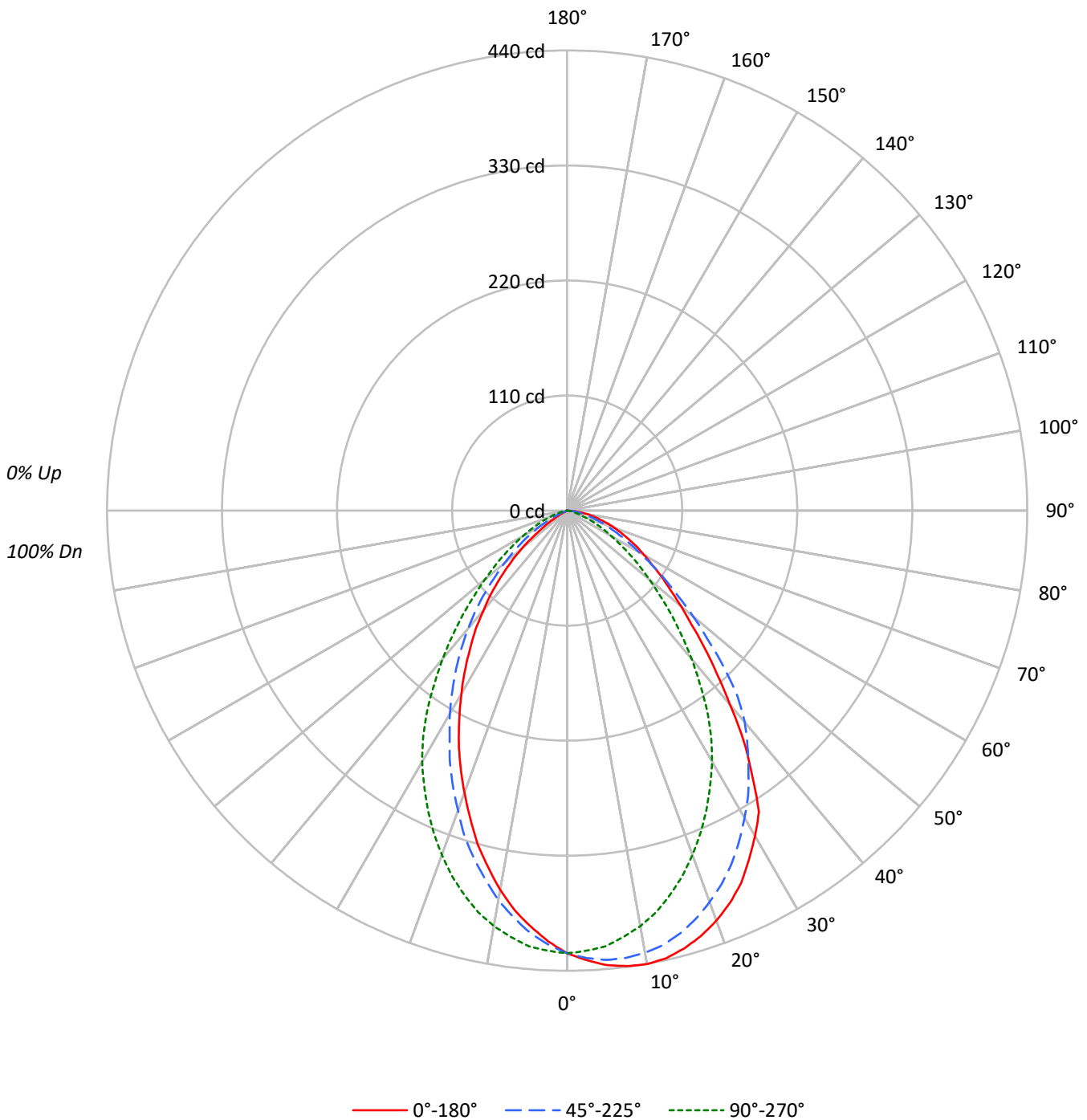
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91					89				
2	104	97	92	87	101	95	90	86	92	88	84	89	85	83	86	83	81					79				
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72					70				
4	90	80	72	67	88	78	72	67	76	70	66	74	69	65	72	68	64					62				
5	83	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58					56				
6	78	67	59	53	76	66	59	53	64	58	53	62	57	52	61	56	52					50				
7	73	61	54	48	71	61	53	48	59	53	48	58	52	48	56	51	47					46				
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43					42				
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40					38				
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37					35				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	18225	18225	18225
5°	18857	18079	17258
10°	19250	17632	16102
15°	19314	16952	14723
20°	19120	16050	13159
25°	18684	14974	11649
30°	17863	13781	10053
35°	16199	12257	8520
40°	13613	10404	6975
45°	11332	8592	5425
50°	9518	6906	3818
55°	8265	5487	2027
60°	7328	4219	517
65°	6632	3158	0
70°	6043	2140	0
75°	5323	1331	0
80°	4711	744	0
85°	3458	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.4	5.9
10°-20°	106.9	15.9
20°-30°	145.7	21.6
30°-40°	148.7	22.1
40°-50°	115.0	17.1
50°-60°	69.4	10.3
60°-70°	33.3	4.9
70°-80°	12.9	1.9
80°-90°	2.6	0.4
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°	292.1	43.3
0°-40°	440.8	65.4
0°-60°	625.2	92.8
0°-90°	674.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	674.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	423	423	423	423	423	
5°	436	431	418	405	399	42
15°	433	418	380	344	330	122
25°	393	372	315	265	245	180
35°	308	302	233	185	162	191
45°	186	212	141	111	89	144
55°	110	113	73	52	27	99
65°	65	55	31	12	0	65
75°	32	23	8	0	0	35
85°	7	4	0	0	0	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	423.3	423.3	423.3	423.3	423.3	423.3	423.3	423.3	423.3	423.3	423.3
2.5°	430.3	430.3	430.3	430.3	430.3	430.3	430.3	429.3	429.3	428.3	428.3
5°	436.3	436.3	436.3	435.3	435.3	434.3	434.3	433.3	433.3	431.3	431.3
7.5°	439.3	439.3	439.3	438.3	438.3	437.3	437.3	436.3	434.3	433.3	431.3
10°	440.3	440.3	439.3	439.3	437.3	437.3	437.3	435.3	433.3	431.3	429.3
12.5°	438.3	437.3	437.3	436.3	435.3	434.3	433.3	432.3	430.3	427.3	425.3
15°	433.3	433.3	433.3	432.3	430.3	429.3	429.3	427.3	424.3	421.3	418.3
17.5°	426.3	426.3	426.3	425.3	423.3	422.3	421.3	419.3	416.3	413.3	409.3
20°	417.3	417.3	416.3	415.3	413.3	413.3	412.3	409.3	406.3	402.3	398.3
22.5°	406.3	406.3	405.3	404.3	402.3	401.3	400.3	397.3	394.3	390.3	386.3
25°	393.3	392.3	391.3	390.3	389.3	387.3	386.3	384.3	381.3	376.3	372.3
27.5°	376.3	376.3	375.3	374.3	373.3	372.3	371.3	368.3	365.3	360.3	356.3
30°	359.3	359.3	358.3	357.3	356.3	355.3	353.3	350.3	348.3	344.3	339.3
32.5°	341.3	340.3	340.3	340.3	338.3	338.3	336.3	333.3	329.3	326.3	322.3
35°	308.2	309.2	310.2	313.2	314.2	316.2	316.2	315.2	311.2	307.2	302.2
37.5°	277.2	275.2	278.2	280.2	284.2	286.2	287.2	291.2	293.2	288.2	283.2
40°	242.2	244.2	246.2	249.2	253.2	254.2	257.2	260.2	265.2	267.2	264.2
42.5°	212.2	212.2	215.2	218.2	221.2	224.2	227.2	231.2	237.2	240.2	241.2
45°	186.1	185.1	186.1	190.1	194.2	196.2	198.2	203.2	209.2	213.2	212.2
47.5°	161.1	162.1	164.1	166.1	168.1	170.1	172.1	178.1	182.1	183.1	182.1
50°	142.1	141.1	143.1	144.1	147.1	148.1	150.1	153.1	156.1	157.1	157.1
52.5°	124.1	125.1	125.1	126.1	128.1	129.1	130.1	133.1	133.1	134.1	133.1
55°	110.1	109.1	110.1	111.1	112.1	113.1	114.1	114.1	114.1	114.1	113.1
57.5°	96.1	96.1	97.1	97.1	98.1	99.1	99.1	98.1	98.1	96.1	95.1
60°	85.1	85.1	85.1	85.1	86.1	86.1	86.1	84.1	82.1	82.1	79.1
62.5°	75.1	74.1	75.1	75.1	75.1	74.1	73.1	71.1	70.1	68.1	66.1
65°	65.1	65.1	65.1	65.1	64.0	64.0	63.0	61.0	59.0	58.0	55.0
67.5°	56.0	56.0	56.0	56.0	55.0	54.0	53.0	51.0	49.0	48.0	45.0
70°	48.0	47.0	47.0	47.0	46.0	45.0	44.0	43.0	41.0	39.0	37.0
72.5°	40.0	40.0	39.0	39.0	38.0	37.0	36.0	35.0	33.0	31.0	29.0
75°	32.0	32.0	32.0	31.0	30.0	30.0	29.0	27.0	26.0	24.0	23.0
77.5°	26.0	25.0	25.0	24.0	23.0	23.0	22.0	21.0	20.0	19.0	17.0
80°	19.0	19.0	19.0	18.0	17.0	17.0	16.0	15.0	14.0	13.0	12.0
82.5°	13.0	13.0	13.0	12.0	12.0	11.0	11.0	10.0	10.0	9.0	8.0
85°	7.0	7.0	7.0	7.0	7.0	6.0	6.0	6.0	5.0	5.0	4.0
87.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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°	423.3	423.3	423.3	423.3	423.3	423.3	423.3	423.3	423.3	423.3	423.3
2.5°	427.3	427.3	426.3	425.3	425.3	424.3	423.3	423.3	422.3	421.3	420.3
5°	429.3	428.3	426.3	425.3	424.3	424.3	422.3	420.3	419.3	418.3	416.3
7.5°	429.3	427.3	425.3	423.3	422.3	421.3	418.3	416.3	414.3	411.3	409.3
10°	427.3	424.3	421.3	418.3	417.3	415.3	412.3	410.3	406.3	403.3	400.3
12.5°	422.3	419.3	415.3	411.3	409.3	407.3	403.3	400.3	396.3	393.3	389.3
15°	415.3	411.3	407.3	403.3	400.3	399.3	394.3	389.3	385.3	380.3	375.3
17.5°	405.3	401.3	396.3	392.3	389.3	387.3	381.3	376.3	371.3	366.3	361.3
20°	394.3	389.3	384.3	378.3	376.3	373.3	367.3	361.3	355.3	350.3	344.3
22.5°	381.3	376.3	370.3	365.3	361.3	358.3	352.3	345.3	339.3	333.3	327.3
25°	366.3	361.3	355.3	349.3	345.3	342.3	335.3	328.3	322.3	315.2	309.2
27.5°	351.3	345.3	339.3	331.3	328.3	324.3	317.2	310.2	303.2	296.2	289.2
30°	334.3	327.3	321.3	313.2	310.2	306.2	298.2	291.2	284.2	277.2	269.2
32.5°	316.2	309.2	302.2	295.2	291.2	287.2	280.2	272.2	263.2	256.2	250.2
35°	296.2	290.2	283.2	275.2	270.2	266.2	256.2	248.2	239.2	233.2	226.2
37.5°	278.2	270.2	261.2	251.2	246.2	241.2	231.2	223.2	216.2	208.2	202.2
40°	256.2	247.2	237.2	225.2	222.2	217.2	208.2	199.2	192.1	185.1	179.1
42.5°	232.2	222.2	213.2	203.2	198.2	193.2	184.1	175.1	168.1	162.1	156.1
45°	208.2	199.2	189.1	179.1	174.1	170.1	161.1	153.1	147.1	141.1	136.1
47.5°	181.1	175.1	166.1	157.1	151.1	147.1	140.1	133.1	126.1	120.1	117.1
50°	155.1	151.1	144.1	135.1	131.1	127.1	119.1	113.1	108.1	103.1	99.1
52.5°	131.1	128.1	123.1	115.1	112.1	107.1	101.1	96.1	91.1	87.1	84.1
55°	111.1	107.1	103.1	98.1	94.1	92.1	85.1	81.1	77.1	73.1	70.1
57.5°	92.1	90.1	86.1	82.1	79.1	76.1	71.1	67.1	64.0	60.0	58.0
60°	78.1	74.1	71.1	67.1	65.1	63.0	59.0	55.0	52.0	49.0	47.0
62.5°	64.0	61.0	58.0	54.0	53.0	51.0	48.0	44.0	42.0	39.0	37.0
65°	53.0	50.0	48.0	44.0	43.0	41.0	38.0	35.0	33.0	31.0	29.0
67.5°	43.0	41.0	38.0	35.0	34.0	32.0	29.0	27.0	25.0	23.0	22.0
70°	35.0	33.0	30.0	27.0	26.0	25.0	22.0	21.0	19.0	17.0	16.0
72.5°	28.0	26.0	23.0	21.0	20.0	19.0	17.0	15.0	14.0	12.0	11.0
75°	21.0	19.0	17.0	15.0	14.0	14.0	12.0	11.0	10.0	8.0	7.0
77.5°	16.0	14.0	12.0	11.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0
80°	11.0	10.0	8.0	7.0	7.0	6.0	5.0	5.0	4.0	3.0	2.0
82.5°	7.0	6.0	5.0	4.0	4.0	4.0	3.0	2.0	2.0	2.0	1.0
85°	3.0	3.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	0.0	0.0
87.5°	1.0	1.0	0.0	1.0	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	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°	423.3	423.3	423.3	423.3	423.3	423.3	423.3	423.3	423.3	423.3	423.3
2.5°	420.3	419.3	418.3	418.3	417.3	417.3	416.3	416.3	415.3	415.3	414.3
5°	414.3	413.3	411.3	411.3	410.3	409.3	407.3	406.3	405.3	404.3	403.3
7.5°	407.3	404.3	402.3	401.3	400.3	398.3	396.3	394.3	392.3	391.3	389.3
10°	396.3	393.3	391.3	390.3	388.3	385.3	383.3	380.3	378.3	376.3	374.3
12.5°	385.3	381.3	377.3	376.3	374.3	370.3	368.3	364.3	361.3	359.3	357.3
15°	371.3	367.3	362.3	360.3	359.3	354.3	351.3	348.3	344.3	341.3	339.3
17.5°	355.3	351.3	346.3	343.3	341.3	337.3	332.3	329.3	326.3	321.3	319.2
20°	339.3	333.3	328.3	326.3	323.3	318.2	314.2	310.2	305.2	302.2	298.2
22.5°	320.2	315.2	309.2	306.2	304.2	298.2	294.2	289.2	285.2	282.2	277.2
25°	303.2	296.2	290.2	287.2	284.2	279.2	273.2	269.2	265.2	261.2	257.2
27.5°	283.2	276.2	270.2	268.2	265.2	258.2	254.2	248.2	243.2	240.2	236.2
30°	263.2	256.2	250.2	247.2	244.2	238.2	233.2	228.2	224.2	220.2	216.2
32.5°	243.2	237.2	231.2	228.2	225.2	219.2	214.2	208.2	204.2	199.2	195.2
35°	220.2	214.2	209.2	206.2	204.2	199.2	194.2	189.1	185.1	180.1	176.1
37.5°	196.2	190.1	187.1	184.1	182.1	178.1	174.1	170.1	166.1	162.1	157.1
40°	173.1	170.1	164.1	163.1	161.1	157.1	154.1	150.1	147.1	143.1	139.1
42.5°	152.1	147.1	143.1	142.1	140.1	137.1	134.1	131.1	129.1	125.1	122.1
45°	132.1	128.1	124.1	122.1	121.1	118.1	115.1	113.1	111.1	108.1	105.1
47.5°	113.1	109.1	106.1	105.1	103.1	101.1	98.1	96.1	93.1	91.1	88.1
50°	96.1	93.1	90.1	89.1	87.1	86.1	83.1	81.1	78.1	75.1	73.1
52.5°	81.1	78.1	76.1	75.1	74.1	71.1	69.1	67.1	64.0	62.0	59.0
55°	67.1	65.1	63.0	62.0	61.0	59.0	57.0	54.0	52.0	49.0	46.0
57.5°	55.0	53.0	51.0	50.0	49.0	47.0	45.0	43.0	40.0	37.0	34.0
60°	44.0	43.0	41.0	40.0	39.0	37.0	35.0	32.0	30.0	26.0	24.0
62.5°	35.0	34.0	32.0	31.0	30.0	27.0	25.0	23.0	20.0	17.0	14.0
65°	27.0	25.0	23.0	23.0	22.0	20.0	17.0	14.0	12.0	9.0	6.0
67.5°	20.0	18.0	16.0	16.0	15.0	13.0	10.0	8.0	5.0	3.0	0.0
70°	14.0	13.0	11.0	10.0	9.0	7.0	5.0	3.0	1.0	0.0	0.0
72.5°	10.0	8.0	7.0	6.0	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	1.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.0	3.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	2.0	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°	0.0	0.0	0.0	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	0.0	0.0	0.0



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CATALOG NUMBER: PRS610D010-S6M12-61SWWMB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	423.3	423.3	423.3	423.3	423.3	423.3	423.3	423.3
2.5°	414.3	413.3	413.3	413.3	413.3	413.3	412.3	412.3
5°	402.3	401.3	401.3	400.3	400.3	400.3	399.3	399.3
7.5°	388.3	387.3	386.3	386.3	385.3	385.3	384.3	385.3
10°	372.3	370.3	370.3	370.3	369.3	368.3	368.3	368.3
12.5°	355.3	353.3	352.3	351.3	350.3	350.3	349.3	349.3
15°	336.3	334.3	333.3	332.3	331.3	330.3	329.3	330.3
17.5°	316.2	314.2	313.2	312.2	310.2	310.2	309.2	308.2
20°	295.2	293.2	292.2	291.2	290.2	289.2	288.2	287.2
22.5°	274.2	273.2	270.2	270.2	268.2	267.2	266.2	266.2
25°	253.2	251.2	250.2	248.2	246.2	245.2	245.2	245.2
27.5°	232.2	230.2	228.2	227.2	226.2	225.2	223.2	223.2
30°	212.2	209.2	207.2	207.2	205.2	203.2	203.2	202.2
32.5°	192.1	189.1	187.1	186.1	185.1	183.1	182.1	182.1
35°	172.1	169.1	168.1	166.1	164.1	164.1	161.1	162.1
37.5°	154.1	150.1	149.1	148.1	145.1	144.1	143.1	144.1
40°	135.1	132.1	130.1	129.1	127.1	125.1	124.1	124.1
42.5°	117.1	115.1	113.1	112.1	109.1	107.1	106.1	107.1
45°	101.1	98.1	97.1	95.1	92.1	90.1	89.1	89.1
47.5°	85.1	83.1	80.1	79.1	76.1	74.1	72.1	72.1
50°	70.1	67.1	65.1	63.0	61.0	58.0	56.0	57.0
52.5°	56.0	52.0	51.0	49.0	46.0	43.0	41.0	41.0
55°	43.0	40.0	38.0	37.0	33.0	30.0	28.0	27.0
57.5°	31.0	28.0	27.0	25.0	22.0	19.0	16.0	16.0
60°	21.0	18.0	16.0	15.0	12.0	10.0	7.0	6.0
62.5°	11.0	9.0	7.0	6.0	4.0	2.0	2.0	1.0
65°	3.0	1.0	1.0	1.0	1.0	1.0	1.0	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)