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Photometric Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-10-2014, CIE 13.3-1995
CIE 15-2004, ANSI C78.377-2017, IES TM-30-2018

Prepared For
Hubbell Lighting Inc
701 Millennium Blvd
Greenville, SC 29607
United States

Catalog Number
P550100-020-30 (P21.00065)
Order Number
13646774
Test Number
13646774.35

Test Date

2021-01-05 - 2021-01-08

Prepared By

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Approved By

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The results contained in this report pertain only to the tested sample.
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Laboratory results may not be representative of field performance
Ballast factors have not been applied

Testing was performed in a 2-meter integrating sphere using the 4π geometry method.

Absorption correction was employed for Sphere measurement



Luminaire Description: Brown aluminum housing, frosted plastic diffuser, no enclosure
Lamp: White LEDs
Mounting: Pendant
Ballast/Driver: N/A
Note: Data comes from original report #13646774.32. This model differs only in mounting.

Luminaire



Luminaire Characteristics
Luminous Diameter: 6.00 in.

Summary of Results

Integrating Sphere

Luminous Flux: 908.5 Lumens
Efficacy: 29.14 lm/w
CCT: 3047 K
CRI (Ra): 92.9

Distribution

Total Luminaire Output: 945.5 Lumens
Luminaire Efficacy: 30.4 lm/w
Maximum Candela: 689 Candela

Electrical Data at 120 VAC

Test Temperature: 25.0 °C
Voltage: 120.0 VAC
Current: 0.2870 A
Power: 31.18 W
Power Factor: 0.905
Frequency: 60 Hz
Current THD: 46.9 %



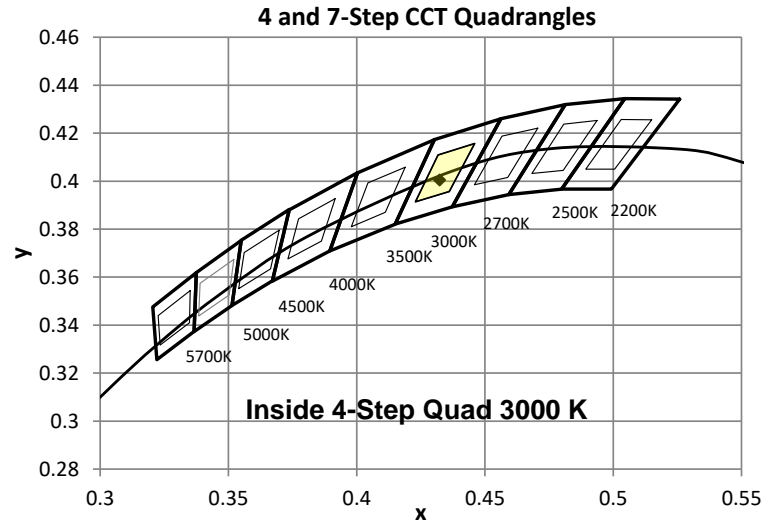
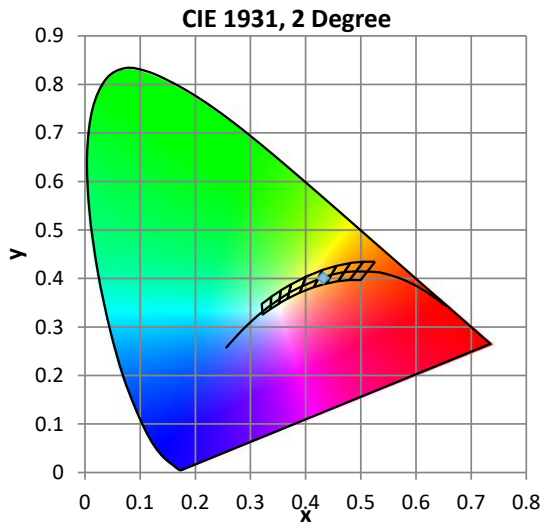
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.0 °C	120.0 VAC	0.2870 A	31.18 W	0.905	60 Hz	46.9 %

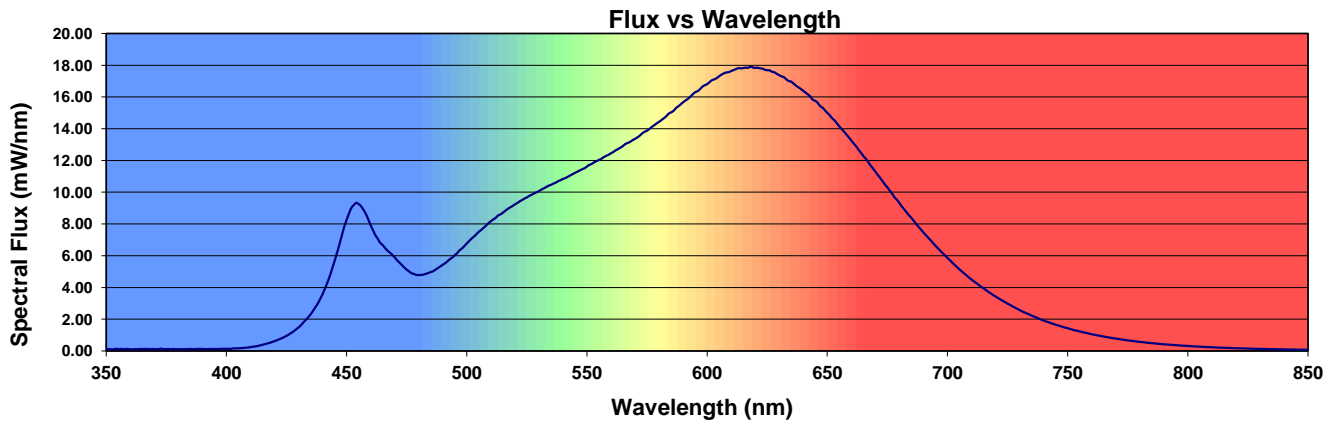
Summary of Results

Total Output:	909 Lumens	Chromaticity (x):	0.4323
Efficacy:	29.1 lm/w	Chromaticity (y):	0.4005
CCT:	3047 K	Chromaticity (u'):	0.2492
CRI (Ra):	92.9	Chromaticity (v'):	0.5193
CRI (R9):	59.3	TM-30 Rf:	92
Peak Wavelength:	618 nm	TM-30 Rg:	99
Dominant Wavelength:	583 nm	TM-30 Rcs,h1:	-5%
S/P Ratio:	1.45	Duv:	-0.0008



Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92.9	93.2	97.1	98.5	92.4	92.8	95.9	91.5	81.6	59.3	92.0	93.0	82.0	94.4	99.1	89.3





Distribution - Goniophotometer

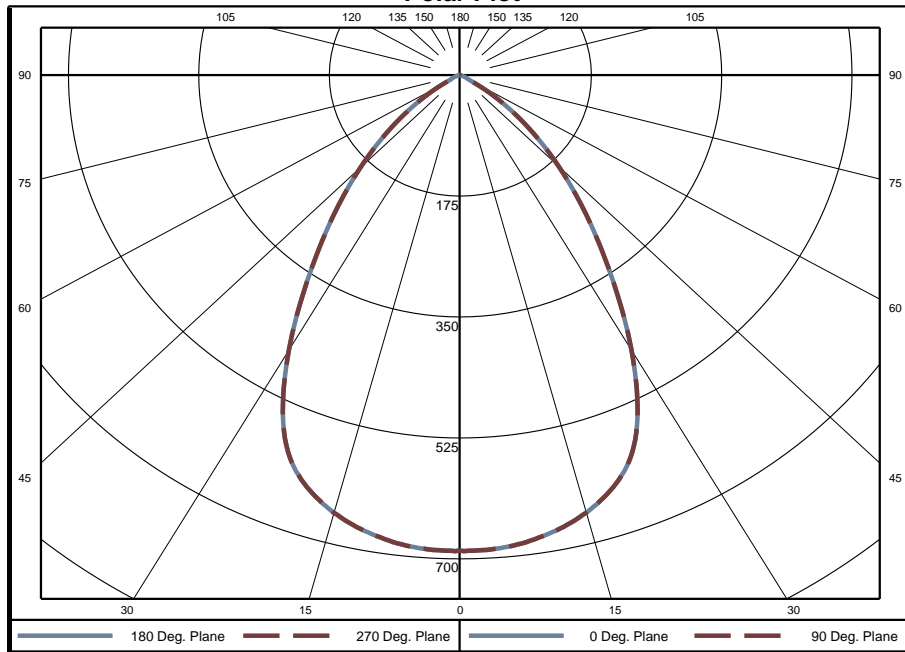
Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.8 °C	119.9 VAC	0.2868 A	31.12 W	0.905	60 Hz	47.0 %

Summary of Results

Spacing Criteria	Total Lumen Output:	945.5 Lumens
0-180: 1.07	Luminaire Efficacy:	30.4 lm/w
90-270: 1.07	Maximum Candela:	689 Candela
Corrected UGR (Room Dimension: X=4H, Y=8H, Reflectances: 70/50/20%, S/H: 1)	Endwise:	13.3
Crosswise: 13.3		

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	16.4	1.7%	60-65	6.9	0.7%	120-125	0	0.0%
5-10	48.7	5.2%	65-70	4.2	0.4%	125-130	0	0.0%
10-15	78.9	8.3%	70-75	1.7	0.2%	130-135	0	0.0%
15-20	105.4	11.1%	75-80	0.6	0.1%	135-140	0	0.0%
20-25	124.7	13.2%	80-85	0.2	0.0%	140-145	0	0.0%
25-30	129.1	13.7%	85-90	0.1	0.0%	145-150	0	0.0%
30-35	118.8	12.6%	90-95	0	0.0%	150-155	0	0.0%
35-40	101.7	10.8%	95-100	0	0.0%	155-160	0	0.0%
40-45	82.8	8.8%	100-105	0	0.0%	160-165	0	0.0%
45-50	62.5	6.6%	105-110	0	0.0%	165-170	0	0.0%
50-55	41.5	4.4%	110-115	0	0.0%	170-175	0	0.0%
55-60	21.2	2.2%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	724	76.5%
0-60	932	98.5%
0-90	945	100.0%
90-180	0	0.0%



Candela Tabulation
Horizontal Angle (Degrees)

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
5	685.9	685.9	685.9	685.9	685.9	685.9	685.9	685.9	685.9	685.9	685.9	685.9	685.9	685.9	685.9	685.9
10	674.9	674.9	674.9	674.9	674.9	674.9	674.9	674.9	674.9	674.9	674.9	674.9	674.9	674.9	674.9	674.9
15	655.3	655.3	655.3	655.3	655.3	655.3	655.3	655.3	655.3	655.3	655.3	655.3	655.3	655.3	655.3	655.3
20	622.8	622.8	622.8	622.8	622.8	622.8	622.8	622.8	622.8	622.8	622.8	622.8	622.8	622.8	622.8	622.8
25	560.5	560.5	560.5	560.5	560.5	560.5	560.5	560.5	560.5	560.5	560.5	560.5	560.5	560.5	560.5	560.5
30	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1
35	351.7	351.7	351.7	351.7	351.7	351.7	351.7	351.7	351.7	351.7	351.7	351.7	351.7	351.7	351.7	351.7
40	262.7	262.7	262.7	262.7	262.7	262.7	262.7	262.7	262.7	262.7	262.7	262.7	262.7	262.7	262.7	262.7
45	187.7	187.7	187.7	187.7	187.7	187.7	187.7	187.7	187.7	187.7	187.7	187.7	187.7	187.7	187.7	187.7
50	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7
55	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1
60	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4
65	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7
70	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
75	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
80	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
85	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Average Luminance (cd/m²)
Horizontal Angle (Degrees)

	0	45	90
0	37720	37720	37720
45	14560	14560	14560
55	6607	6607	6607
65	1385	1385	1385
75	381	381	381
85	163	163	163

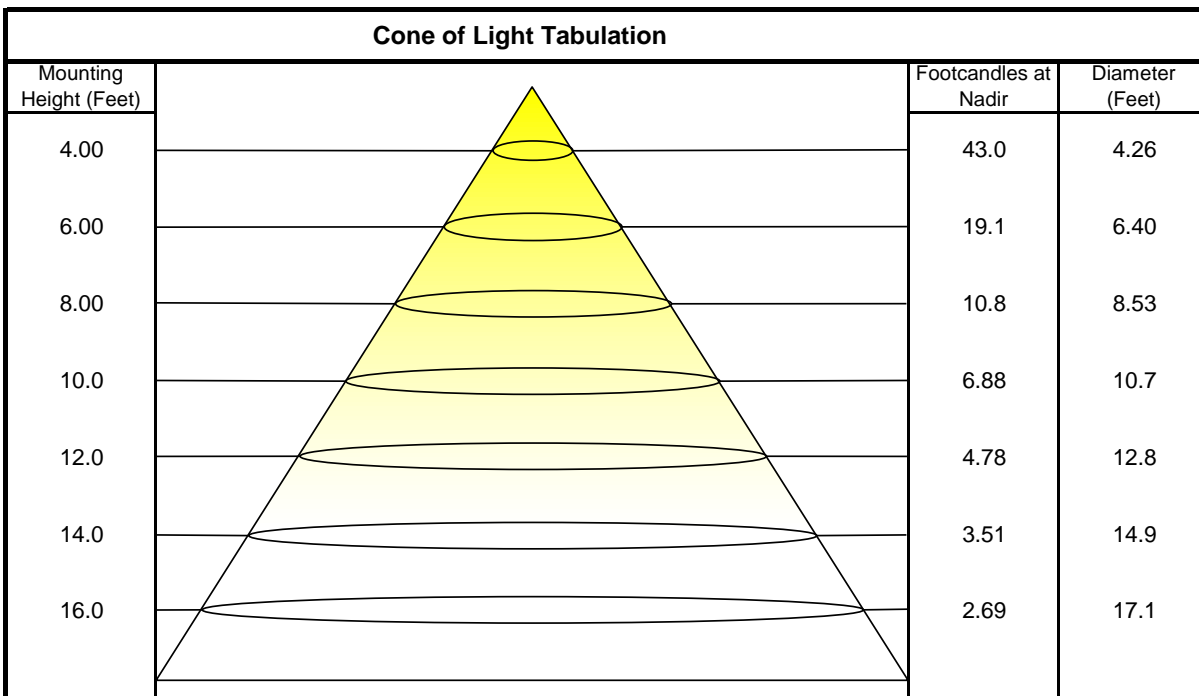


Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%

Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as percent of total lumen output delivered to the task surface **																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	109	107	104	110	107	105	102	103	101	99	99	98	96	96	95	93	92
2	106	100	96	92	104	98	94	91	95	92	89	92	89	87	89	87	85	83
3	99	92	86	81	97	90	85	81	88	83	79	85	81	78	83	80	77	75
4	93	84	78	73	91	83	77	73	81	76	72	79	74	71	77	73	70	68
5	87	78	71	66	86	77	70	66	75	69	65	73	68	64	71	67	64	62
6	82	72	65	60	80	71	64	60	69	63	59	68	63	59	66	62	58	57
7	77	66	60	55	76	66	59	54	64	58	54	63	58	54	62	57	54	52
8	73	62	55	50	71	61	55	50	60	54	50	59	54	50	58	53	49	48
9	69	58	51	46	67	57	51	46	56	50	46	55	50	46	54	49	46	44
10	65	54	47	43	64	53	47	43	53	47	43	52	46	43	51	46	42	41

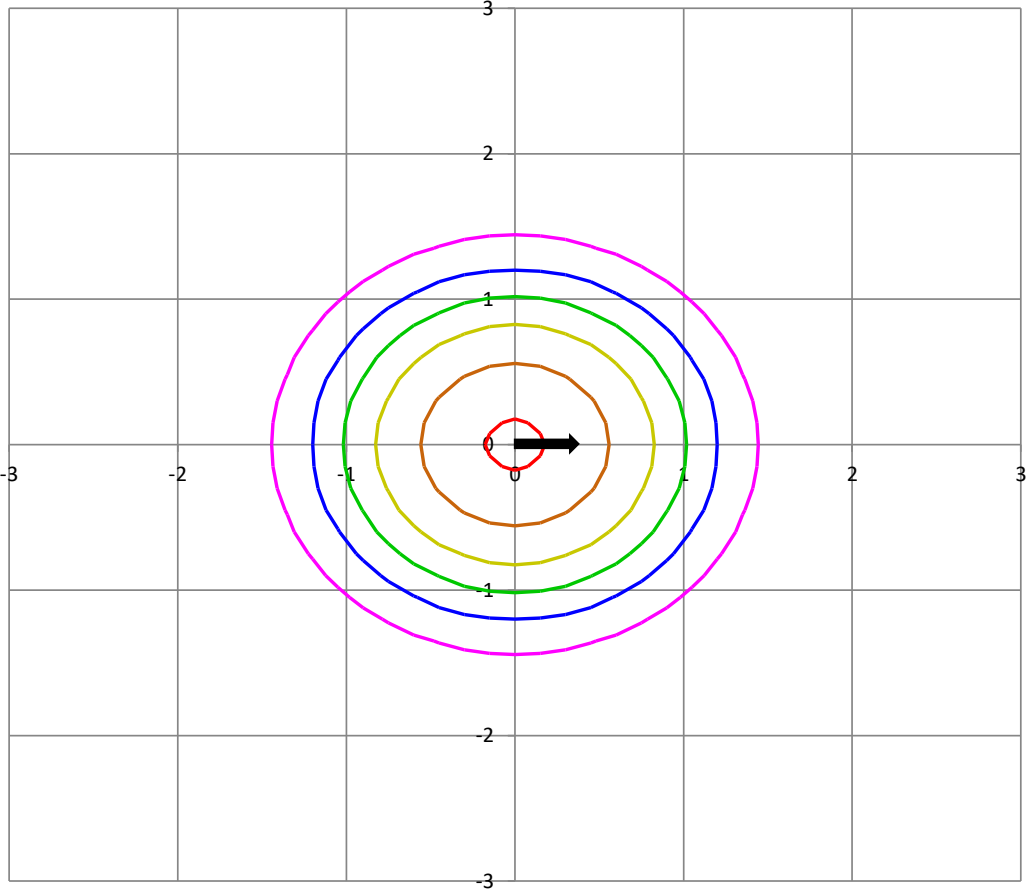
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	688.0 Candela
Central Cone Intensity:	688 Candela
Beam Flux:	631.9 Lumens
Beam Angle (0-180):	70.8 Degrees
Beam Angle (90-270):	70.8 Degrees
Field Angle (0-180):	110.1 Degrees
Field Angle (90-270):	110.1 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

