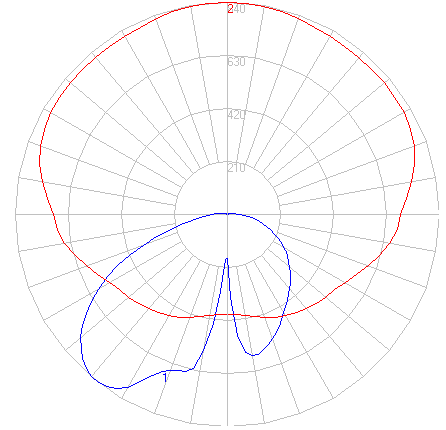


BEGA

TEST: BE_88166K4
 TEST LAB: BEGA
 DATE: 6/26/2017
 LUMINAIRE: 88 166K4
 LAMP: 23.2W LED

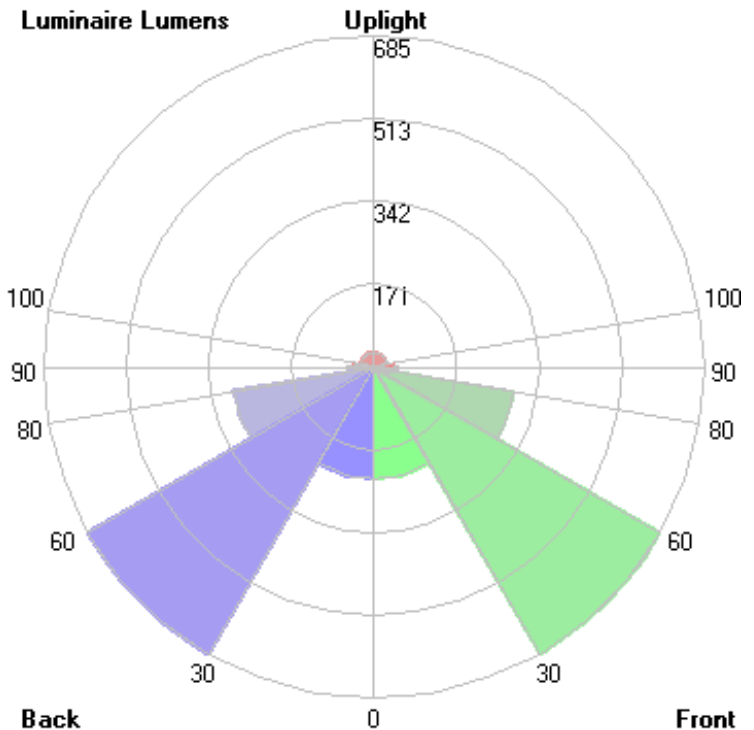
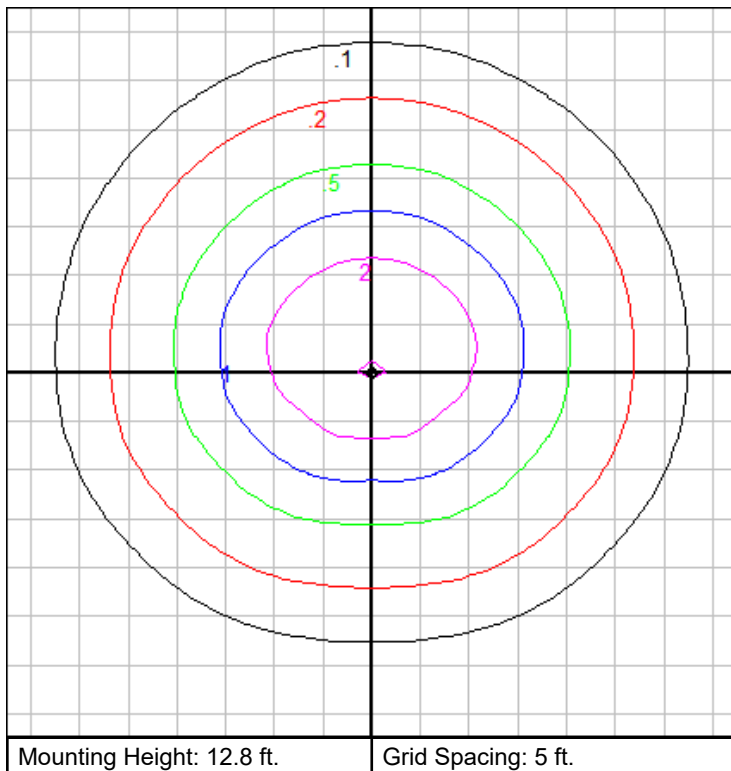


Characteristics

IES Classification	N.A.
Longitudinal Classification	N.A.
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2591
Downward Total Efficiency	N.A.
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	55
Total Luminaire Watts	47
Ballast Factor	1.00
Upward Waste Light Ratio	0.03
Max. Cd.	840.2 (95H, 37.5V)
Max. Cd. (<90 Vert.)	840.2 (95H, 37.5V)
Max. Cd. (At 90 Deg. Vert.)	71.4 (2.8%Lum)
Max. Cd. (80 to <90 Deg. Vert.)	152.1 (5.9%Lum)
Cutoff Classification (deprecated)	N.A. (absolute)

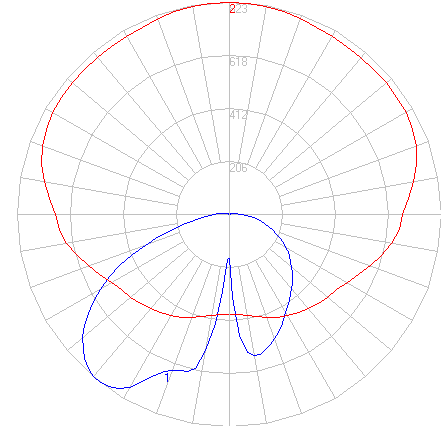
Zonal Lumen Summary

LCS Zone	Lumens	%Lamp	%Lum
FL(0-30)	230.3	N.A.	8.9
FM(30-60)	684.5	N.A.	26.4
FH(60-80)	294.3	N.A.	11.4
FVH(80-90)	51.2	N.A.	2.0
BL(0-30)	230.3	N.A.	8.9
BM(30-60)	684.5	N.A.	26.4
BH(60-80)	294.3	N.A.	11.4
BVH(80-90)	51.2	N.A.	2.0
UL(90-100)	42.0	N.A.	1.6
UH(100-180)	28.6	N.A.	1.1
Total	2591.2	N.A.	100.0
BUG Rating	B1-U2-G1		



BEGA

TEST: BE_88166K4
 TEST LAB: BEGA
 DATE: 6/26/2017
 LUMINAIRE: 88 166K35
 LAMP: 23.2W LED

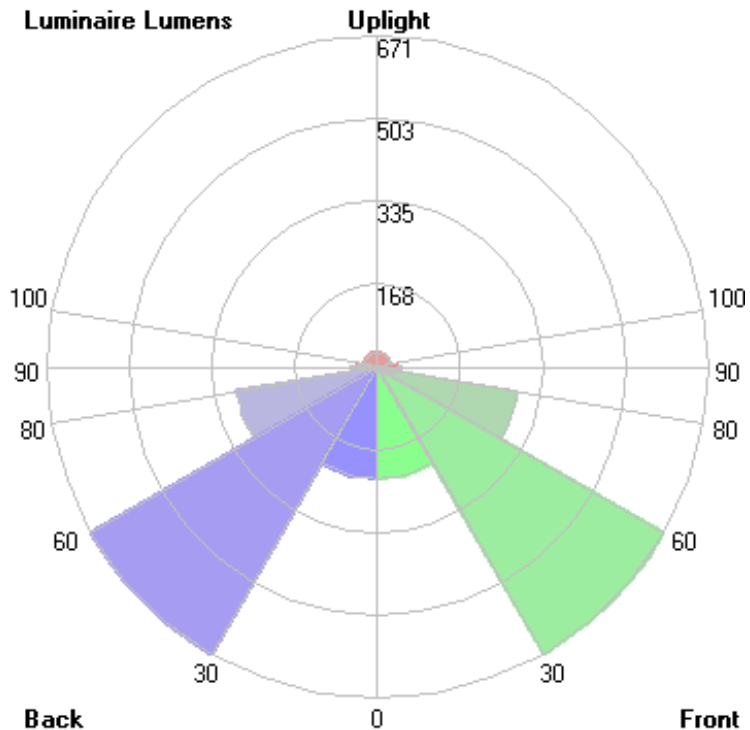
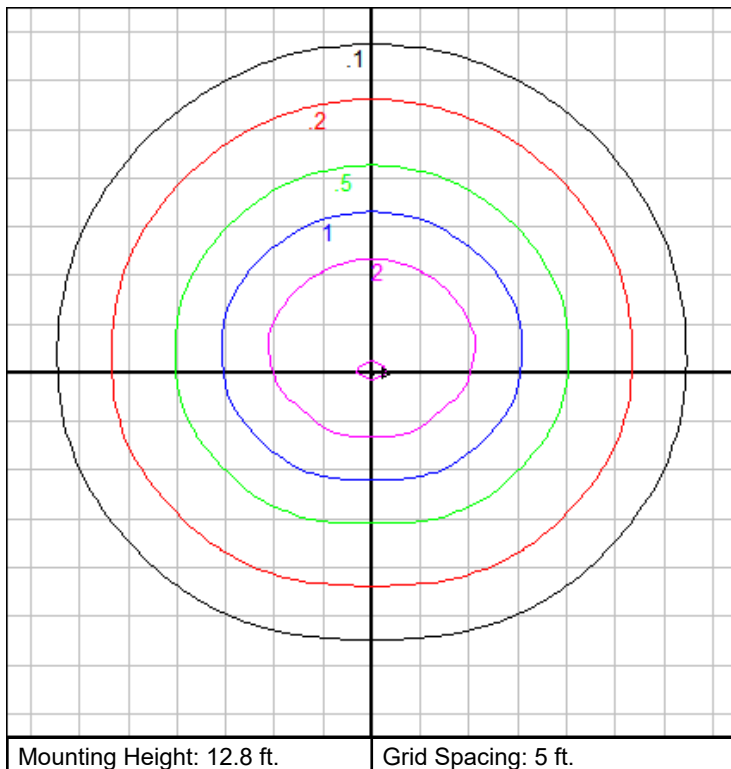


Characteristics

IES Classification	N.A.
Longitudinal Classification	N.A.
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2539
Downward Total Efficiency	N.A.
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	54
Total Luminaire Watts	47
Ballast Factor	1.00
Upward Waste Light Ratio	0.03
Max. Cd.	823.396 (95H, 37.5V)
Max. Cd. (<90 Vert.)	823.396 (95H, 37.5V)
Max. Cd. (At 90 Deg. Vert.)	69.972 (2.8%Lum)
Max. Cd. (80 to <90 Deg. Vert.)	149.058 (5.9%Lum)
Cutoff Classification (deprecated)	N.A. (absolute)

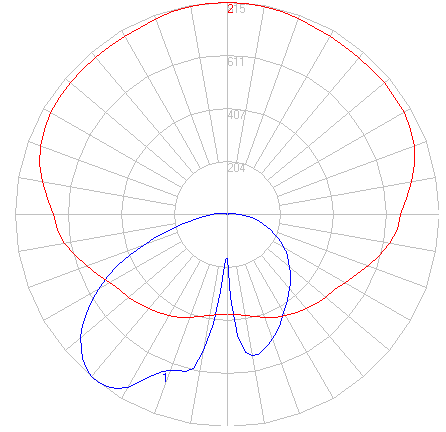
Zonal Lumen Summary

LCS Zone	Lumens	%Lamp	%Lum
FL(0-30)	225.7	N.A.	8.9
FM(30-60)	670.8	N.A.	26.4
FH(60-80)	288.4	N.A.	11.4
FVH(80-90)	50.1	N.A.	2.0
BL(0-30)	225.7	N.A.	8.9
BM(30-60)	670.8	N.A.	26.4
BH(60-80)	288.4	N.A.	11.4
BVH(80-90)	50.1	N.A.	2.0
UL(90-100)	41.1	N.A.	1.6
UH(100-180)	28.0	N.A.	1.1
Total	2539.1	N.A.	100.0
BUG Rating	B1-U2-G1		



BEGA

TEST: BE_88166K4
 TEST LAB: BEGA
 DATE: 6/26/2017
 LUMINAIRE: 88 166K3
 LAMP: 23.2W LED

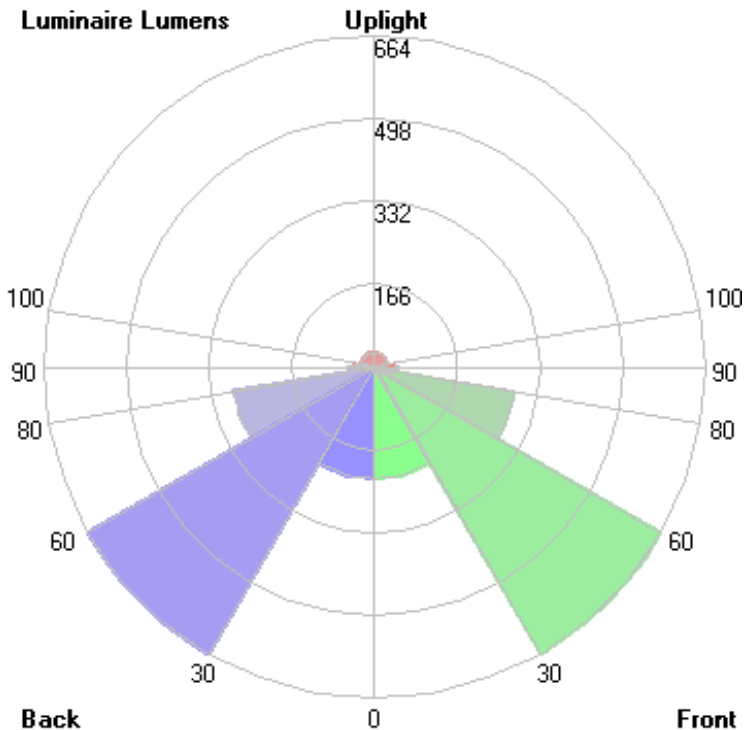
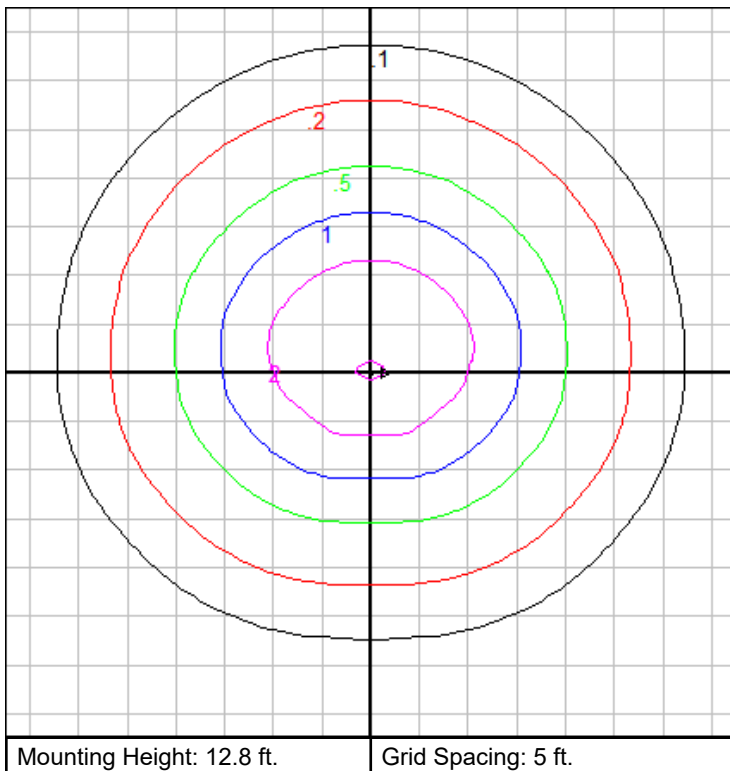


Characteristics

IES Classification	N.A.
Longitudinal Classification	N.A.
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2513
Downward Total Efficiency	N.A.
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	53
Total Luminaire Watts	47
Ballast Factor	1.00
Upward Waste Light Ratio	0.03
Max. Cd.	814.994 (95H, 37.5V)
Max. Cd. (<90 Vert.)	814.994 (95H, 37.5V)
Max. Cd. (At 90 Deg. Vert.)	69.258 (2.8%Lum)
Max. Cd. (80 to <90 Deg. Vert.)	147.537 (5.9%Lum)
Cutoff Classification (deprecated)	N.A. (absolute)

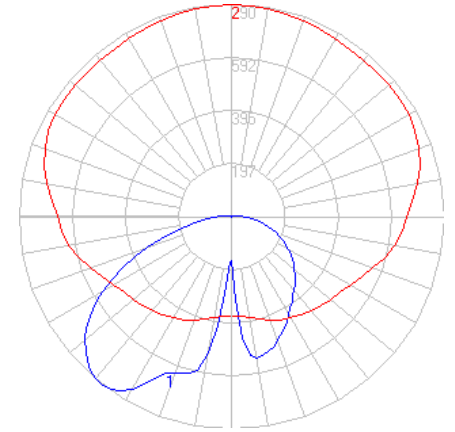
Zonal Lumen Summary

LCS Zone	Lumens	%Lamp	%Lum
FL(0-30)	223.4	N.A.	8.9
FM(30-60)	664.0	N.A.	26.4
FH(60-80)	285.5	N.A.	11.4
FVH(80-90)	49.6	N.A.	2.0
BL(0-30)	223.4	N.A.	8.9
BM(30-60)	664.0	N.A.	26.4
BH(60-80)	285.5	N.A.	11.4
BVH(80-90)	49.6	N.A.	2.0
UL(90-100)	40.7	N.A.	1.6
UH(100-180)	27.7	N.A.	1.1
Total	2513.4	N.A.	100.0
BUG Rating	B1-U2-G1		



BEGA

TEST: BE_88166K4
 TEST LAB: BEGA
 DATE: 6/26/2017
 LUMINAIRE: 88 166K27
 LAMP: 23.2W LED



Characteristics

IES Classification	N.A.
Longitudinal Classification	N.A.
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2436
Downward Total Efficiency	N.A.
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	52
Total Luminaire Watts	47
Ballast Factor	1.00
Upward Waste Light Ratio	0.03
Max. Cd.	789.788 (95H, 37.5V)
Max. Cd. (<90 Vert.)	789.788 (95H, 37.5V)
Max. Cd. (At 90 Deg. Vert.)	67.116 (2.8%Lum)
Max. Cd. (80 to <90 Deg. Vert.)	142.974 (5.9%Lum)
Cutoff Classification (deprecated)	N.A. (absolute)

Zonal Lumen Summary

LCS Zone	Lumens	%Lamp	%Lum
FL(0-30)	216.5	N.A.	8.9
FM(30-60)	643.5	N.A.	26.4
FH(60-80)	276.6	N.A.	11.4
FVH(80-90)	48.1	N.A.	2.0
BL(0-30)	216.5	N.A.	8.9
BM(30-60)	643.5	N.A.	26.4
BH(60-80)	276.6	N.A.	11.4
BVH(80-90)	48.1	N.A.	2.0
UL(90-100)	39.4	N.A.	1.6
UH(100-180)	26.9	N.A.	1.1
Total	2435.7	N.A.	100.0
BUG Rating	B1-U2-G1		

