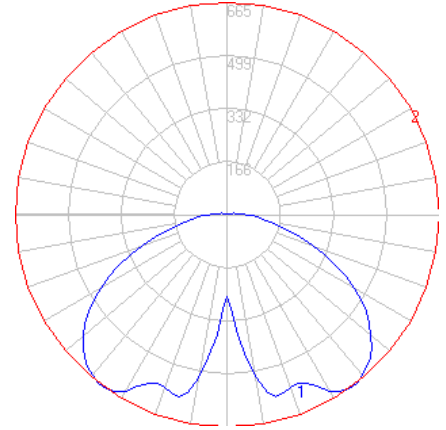


BEGA

TEST: BE_88165K4
 TEST LAB: BEGA
 DATE: 6/26/2017
 LUMINAIRE: 88 165K4
 LAMP: 32.0W LED

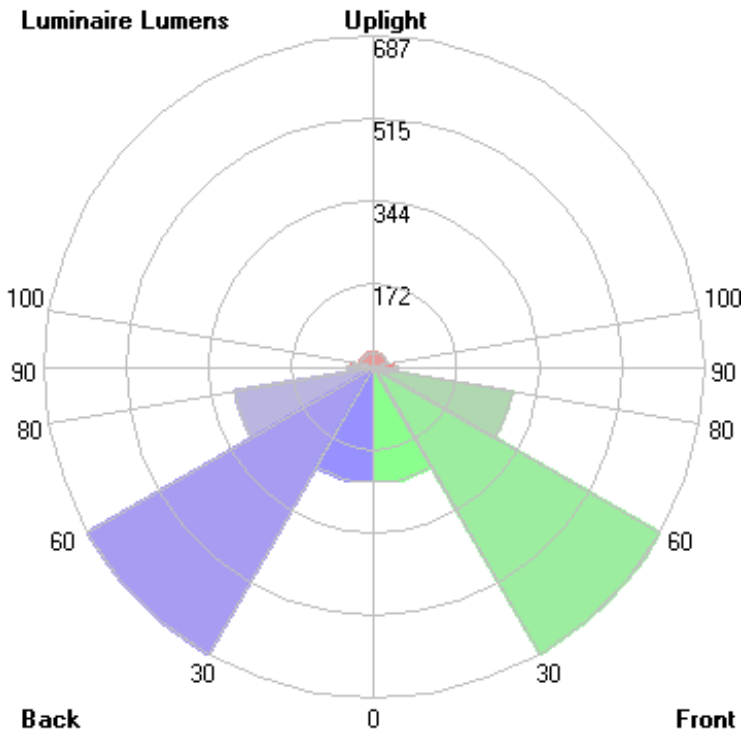
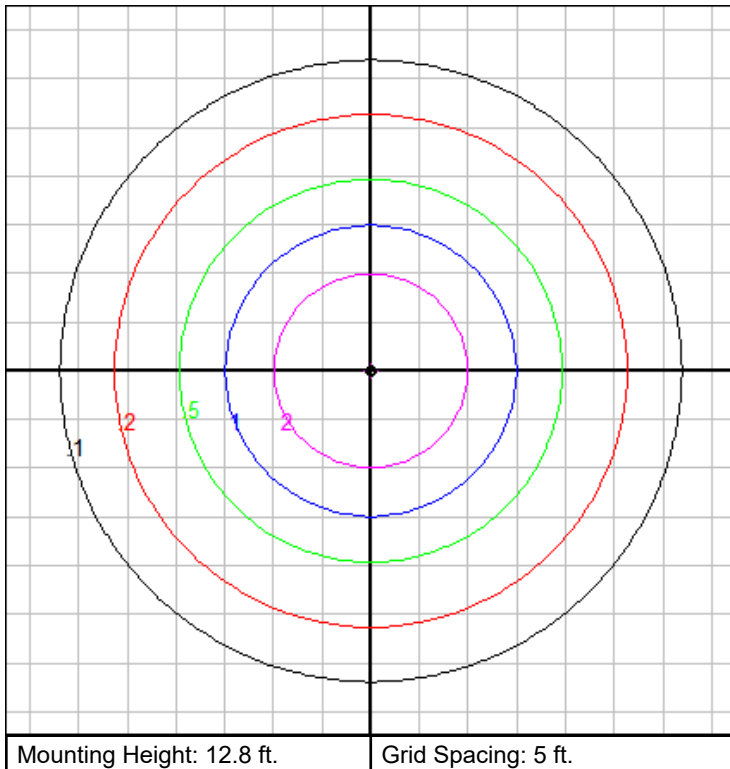


Characteristics

IES Classification	Type V
Longitudinal Classification	Very Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2611
Downward Total Efficiency	N.A.
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	38
Ballast Factor	1.00
Upward Waste Light Ratio	0.03
Max. Cd.	664.8 (0H, 35V)
Max. Cd. (<90 Vert.)	664.8 (0H, 35V)
Max. Cd. (At 90 Deg. Vert.)	59.2 (2.3%Lum)
Max. Cd. (80 to <90 Deg. Vert.)	135.1 (5.2%Lum)
Cutoff Classification (deprecated)	N.A. (absolute)

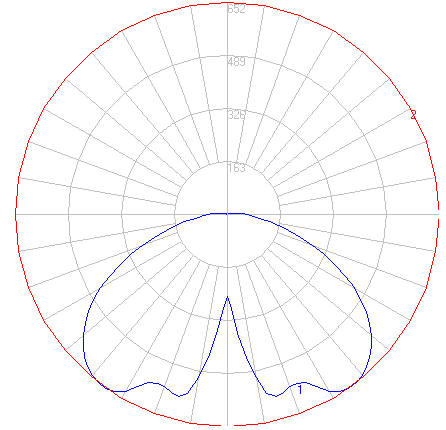
Zonal Lumen Summary

LCS Zone	Lumens	%Lamp	%Lum
FL(0-30)	239.4	N.A.	9.2
FM(30-60)	687.1	N.A.	26.3
FH(60-80)	292.0	N.A.	11.2
FVH(80-90)	50.9	N.A.	2.0
BL(0-30)	239.4	N.A.	9.2
BM(30-60)	687.1	N.A.	26.3
BH(60-80)	292.0	N.A.	11.2
BVH(80-90)	50.9	N.A.	2.0
UL(90-100)	42.8	N.A.	1.6
UH(100-180)	29.0	N.A.	1.1
Total	2610.6	N.A.	100.0
BUG Rating	B1-U2-G1		



BEGA

TEST: BE_88165K4
 TEST LAB: BEGA
 DATE: 6/26/2017
 LUMINAIRE: 88 165K35
 LAMP: 32.0W LED

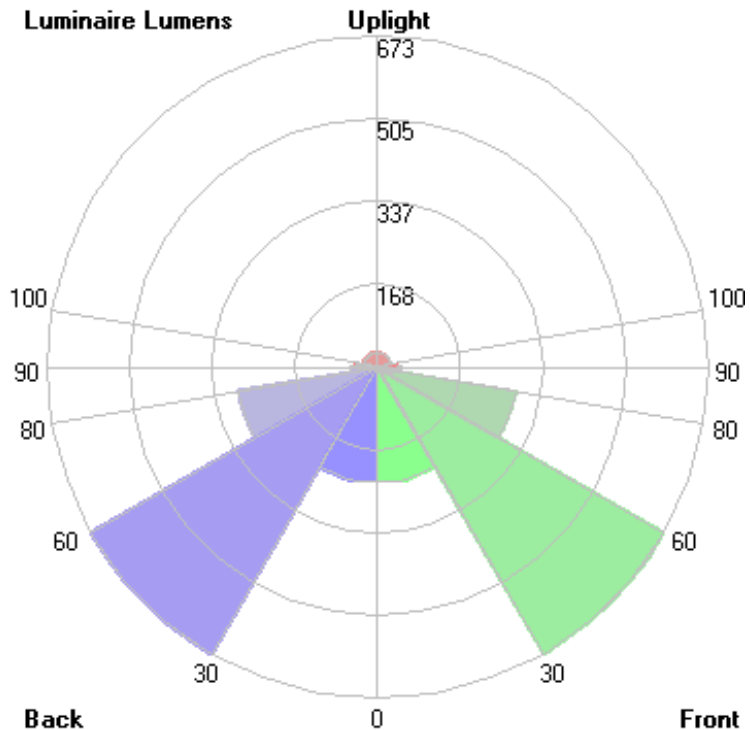
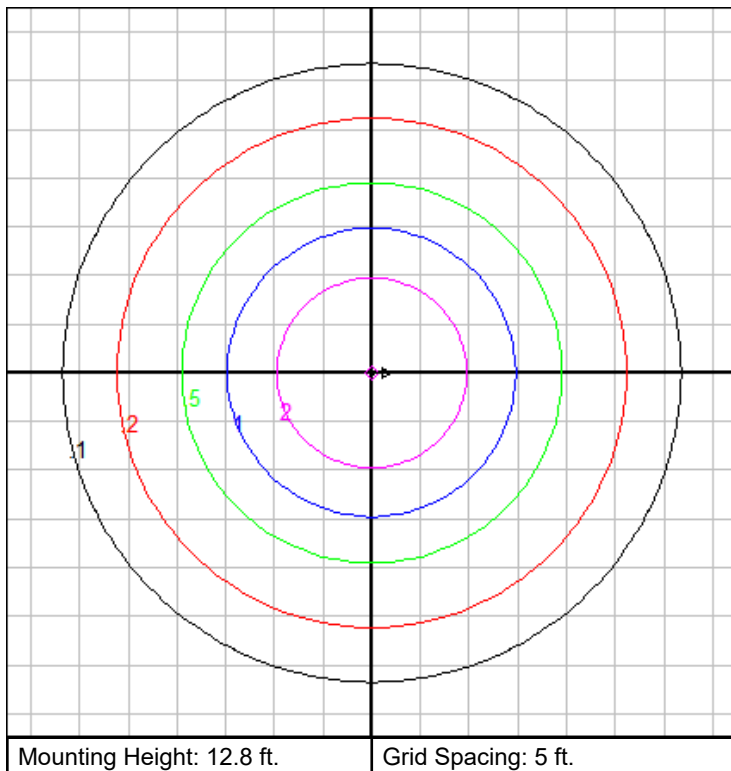


Characteristics

IES Classification	Type V
Longitudinal Classification	Very Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2558
Downward Total Efficiency	N.A.
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
Total Luminaire Watts	38
Ballast Factor	1.00
Upward Waste Light Ratio	0.03
Max. Cd.	651.504 (0H, 35V)
Max. Cd. (<90 Vert.)	651.504 (0H, 35V)
Max. Cd. (At 90 Deg. Vert.)	58.016 (2.3%Lum)
Max. Cd. (80 to <90 Deg. Vert.)	132.398 (5.2%Lum)
Cutoff Classification (deprecated)	N.A. (absolute)

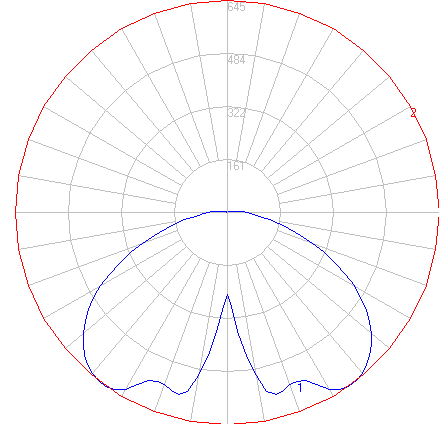
Zonal Lumen Summary

LCS Zone	Lumens	%Lamp	%Lum
FL(0-30)	234.6	N.A.	9.2
FM(30-60)	673.3	N.A.	26.3
FH(60-80)	286.2	N.A.	11.2
FVH(80-90)	49.9	N.A.	2.0
BL(0-30)	234.6	N.A.	9.2
BM(30-60)	673.3	N.A.	26.3
BH(60-80)	286.2	N.A.	11.2
BVH(80-90)	49.9	N.A.	2.0
UL(90-100)	41.9	N.A.	1.6
UH(100-180)	28.4	N.A.	1.1
Total	2558.3	N.A.	100.0
BUG Rating	B1-U2-G1		



BEGA

TEST: BE_88165K4
 TEST LAB: BEGA
 DATE: 6/26/2017
 LUMINAIRE: 88 165K3
 LAMP: 32.0W LED

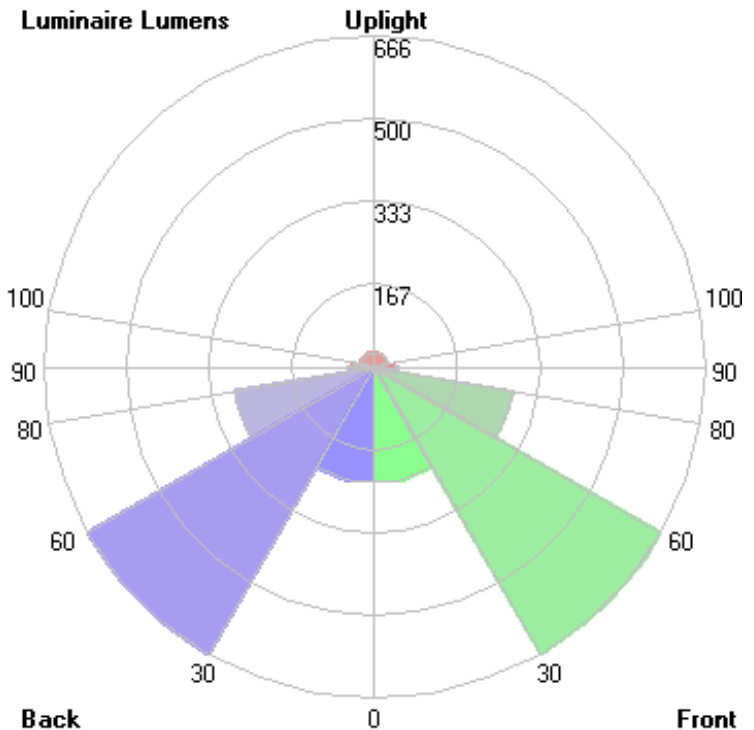
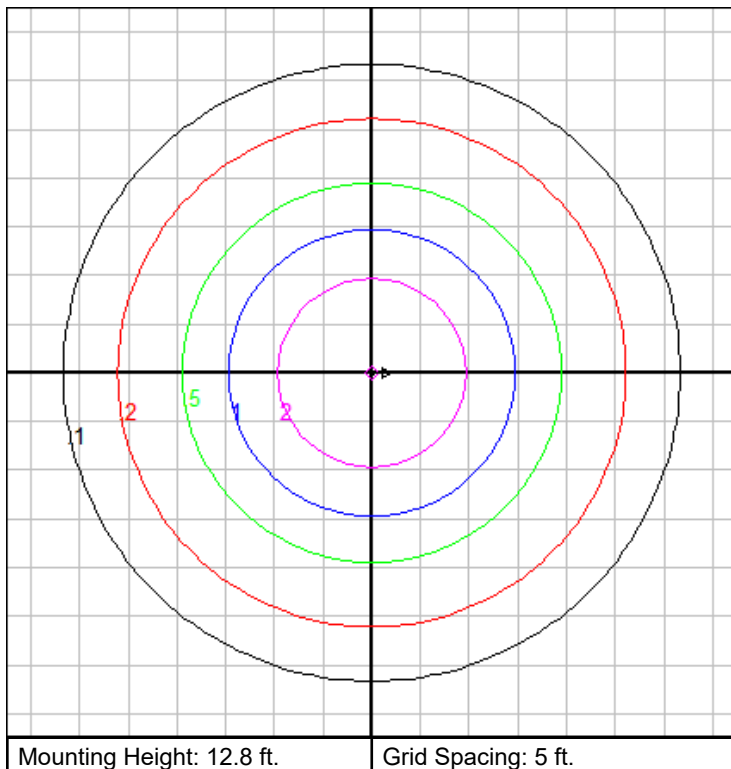


Characteristics

IES Classification	Type V
Longitudinal Classification	Very Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2532
Downward Total Efficiency	N.A.
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	97
Total Luminaire Watts	38
Ballast Factor	1.00
Upward Waste Light Ratio	0.03
Max. Cd.	644.856 (0H, 35V)
Max. Cd. (<90 Vert.)	644.856 (0H, 35V)
Max. Cd. (At 90 Deg. Vert.)	57.424 (2.3%Lum)
Max. Cd. (80 to <90 Deg. Vert.)	131.047 (5.2%Lum)
Cutoff Classification (deprecated)	N.A. (absolute)

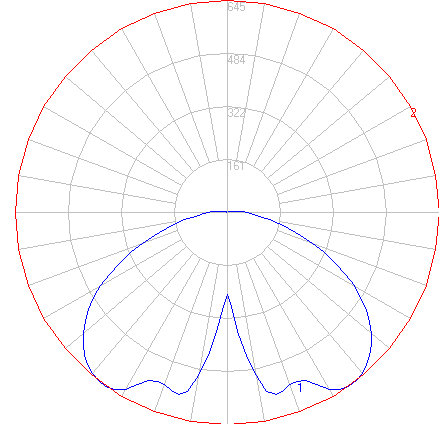
Zonal Lumen Summary

LCS Zone	Lumens	%Lamp	%Lum
FL(0-30)	232.2	N.A.	9.2
FM(30-60)	666.5	N.A.	26.3
FH(60-80)	283.3	N.A.	11.2
FVH(80-90)	49.4	N.A.	2.0
BL(0-30)	232.2	N.A.	9.2
BM(30-60)	666.5	N.A.	26.3
BH(60-80)	283.3	N.A.	11.2
BVH(80-90)	49.4	N.A.	2.0
UL(90-100)	41.5	N.A.	1.6
UH(100-180)	28.1	N.A.	1.1
Total	2532.4	N.A.	100.0
BUG Rating	B1-U2-G1		



BEGA

TEST: BE_88165K4
 TEST LAB: BEGA
 DATE: 6/26/2017
 LUMINAIRE: 88 165K27
 LAMP: 32.0W LED



Characteristics

IES Classification	Type V
Longitudinal Classification	Very Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2454
Downward Total Efficiency	N.A.
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	94
Total Luminaire Watts	38
Ballast Factor	1.00
Upward Waste Light Ratio	0.03
Max. Cd.	624.912 (0H, 35V)
Max. Cd. (<90 Vert.)	624.912 (0H, 35V)
Max. Cd. (At 90 Deg. Vert.)	55.648 (2.3%Lum)
Max. Cd. (80 to <90 Deg. Vert.)	126.994 (5.2%Lum)
Cutoff Classification (deprecated)	N.A. (absolute)

Zonal Lumen Summary

LCS Zone	Lumens	%Lamp	%Lum
FL(0-30)	225.0	N.A.	9.2
FM(30-60)	645.9	N.A.	26.3
FH(60-80)	274.5	N.A.	11.2
FVH(80-90)	47.9	N.A.	2.0
BL(0-30)	225.0	N.A.	9.2
BM(30-60)	645.9	N.A.	26.3
BH(60-80)	274.5	N.A.	11.2
BVH(80-90)	47.9	N.A.	2.0
UL(90-100)	40.2	N.A.	1.6
UH(100-180)	27.3	N.A.	1.1
Total	2454.1	N.A.	100.0
BUG Rating	B1-U2-G1		

