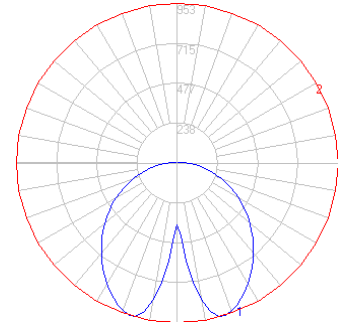


BEGA

Photometric Filename: 88164K4.ies

TEST: BE_88164K4.ies
 TEST LAB: BEGA
 DATE: 6/22/2015
 LUMINAIRE: 88 164K4
 LAMP: 24W LED



All results in accordance with IESNA LM-79-08

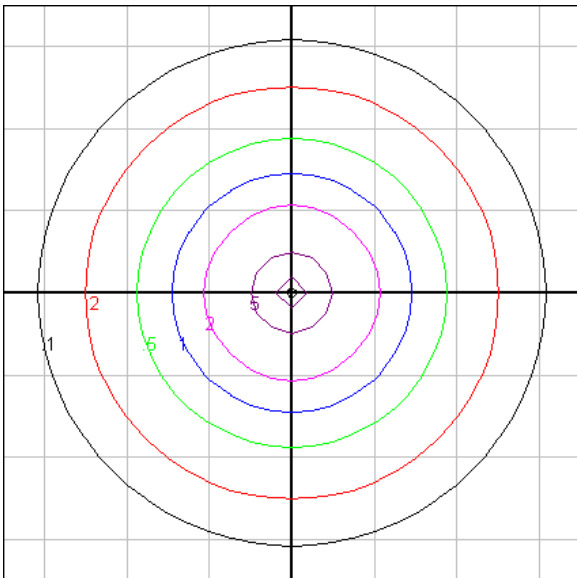
Characteristics

IES Classification	Type V
Longitudinal Classification	Very Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2873
Downward Total Efficiency	N.A.
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	99
Total Luminaire Watts	29
Ballast Factor	1.00
Upward Waste Light Ratio	0.01
Max. Cd.	953.1 (0H, 17.5V)
Max. Cd. (<90 Vert.)	953.1 (0H, 17.5V)
Max. Cd. (At 90 Deg. Vert.)	60.5 (2.1%Lum)
Max. Cd. (80 to <90 Deg. Vert.)	153.4 (5.3%Lum)
Cutoff Classification (deprecated)	N.A. (absolute)

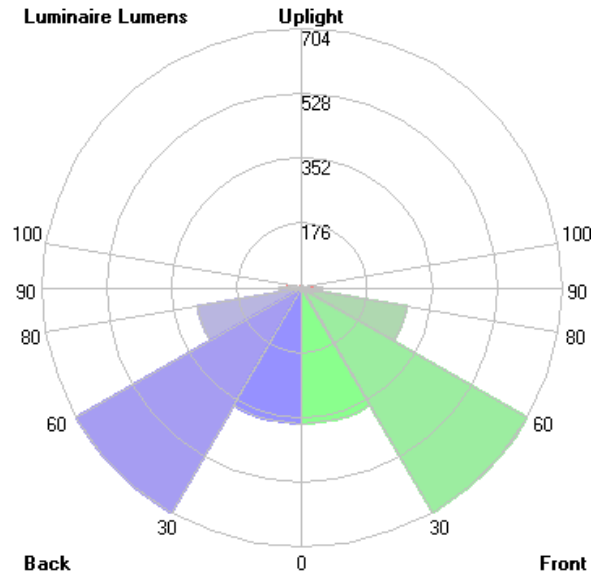
Lum. Classification System (LCS)

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	368.7	N.A.	12.8
FM (30-60)	703.7	N.A.	24.5
FH (60-80)	286.8	N.A.	10.0
FVH(80-90)	56.5	N.A.	2.0
BL (0-30)	368.7	N.A.	12.8
BM (30-60)	703.7	N.A.	24.5
BH (60-80)	286.8	N.A.	10.0
BVH(80-90)	56.5	N.A.	2.0
UL (90-100)	35.7	N.A.	1.2
UH (100-180)	5.7	N.A.	0.2
Total	2872.8	N.A.	100.0

BUG Rating B1-U2-G1



Mounting Height = 12 ft. Grid Spacing = 10 ft.



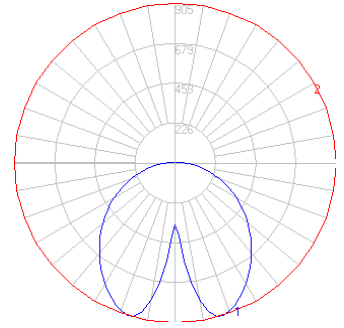
In the interest of product improvement, BEGA reserves the right to make technical changes without notice.

BEGA

Photometric Filename: 88164K35.ies

TEST: BE_88164K4.ies
 TEST LAB: BEGA
 DATE: 6/22/2015
 LUMINAIRE: 88 164K35
 LAMP: 24W LED

All results in accordance with IESNA LM-79-08

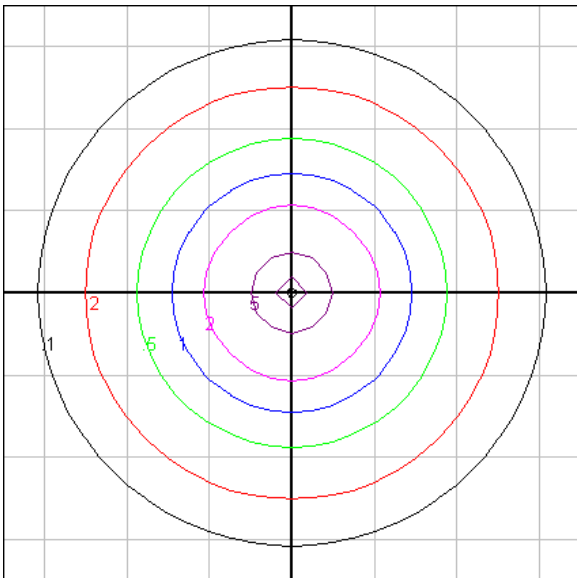


Characteristics	
IES Classification	Type V
Longitudinal Classification	Very Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2729
Downward Total Efficiency	N.A.
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	94
Total Luminaire Watts	29
Ballast Factor	1.00
Upward Waste Light Ratio	0.01
Max. Cd.	905.445 (0H, 17.5V)
Max. Cd. (<90 Vert.)	905.445 (0H, 17.5V)
Max. Cd. (At 90 Deg. Vert.)	57.475 (2.1%Lum)
Max. Cd. (80 to <90 Deg. Vert.)	145.73 (5.3%Lum)
Cutoff Classification (deprecated)	N.A. (absolute)

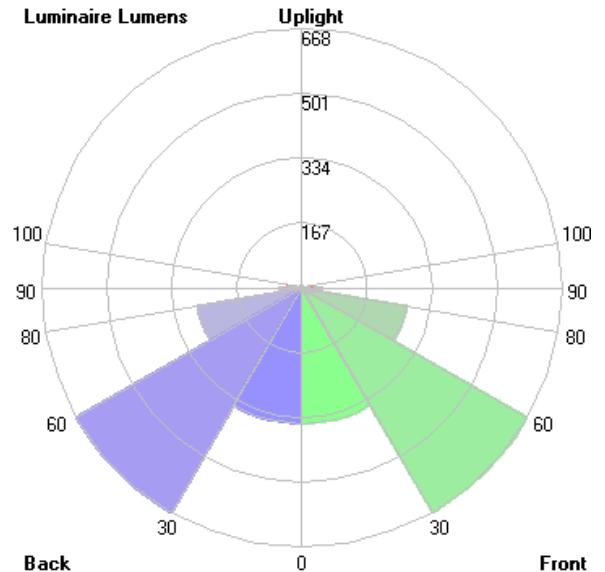
Lum. Classification System (LCS)

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	350.3	N.A.	12.8
FM (30-60)	668.5	N.A.	24.5
FH (60-80)	272.5	N.A.	10.0
FVH(80-90)	53.7	N.A.	2.0
BL (0-30)	350.3	N.A.	12.8
BM (30-60)	668.5	N.A.	24.5
BH (60-80)	272.5	N.A.	10.0
BVH(80-90)	53.7	N.A.	2.0
UL (90-100)	33.9	N.A.	1.2
UH (100-180)	5.4	N.A.	0.2
Total	2729.3	N.A.	100.0

BUG Rating B1-U2-G1



Mounting Height = 12 ft. Grid Spacing = 10 ft.

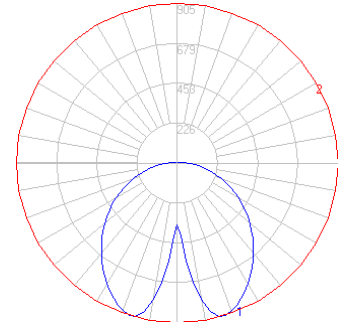


In the interest of product improvement, BEGA reserves the right to make technical changes without notice.

BEGA

Photometric Filename: 88164K3.ies

TEST: BE_88164K4.ies
 TEST LAB: BEGA
 DATE: 6/22/2015
 LUMINAIRE: 88 164K3
 LAMP: 24W LED



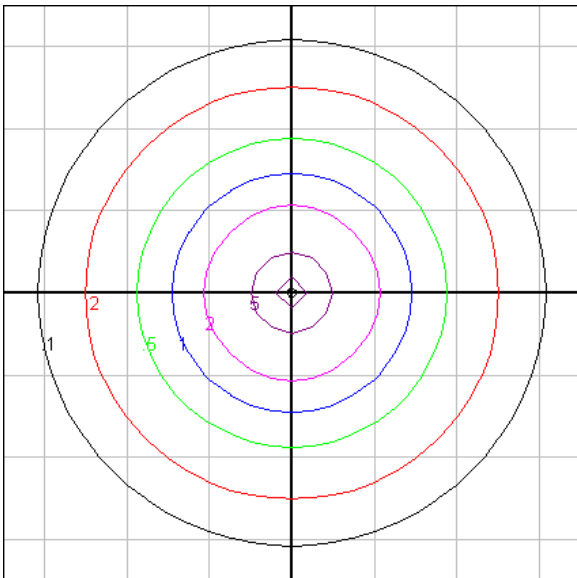
All results in accordance with IESNA LM-79-08

Characteristics	
IES Classification	Type V
Longitudinal Classification	Very Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2729
Downward Total Efficiency	N.A.
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	94
Total Luminaire Watts	29
Ballast Factor	1.00
Upward Waste Light Ratio	0.01
Max. Cd.	905.445 (0H, 17.5V)
Max. Cd. (<90 Vert.)	905.445 (0H, 17.5V)
Max. Cd. (At 90 Deg. Vert.)	57.475 (2.1%Lum)
Max. Cd. (80 to <90 Deg. Vert.)	145.73 (5.3%Lum)
Cutoff Classification (deprecated)	N.A. (absolute)

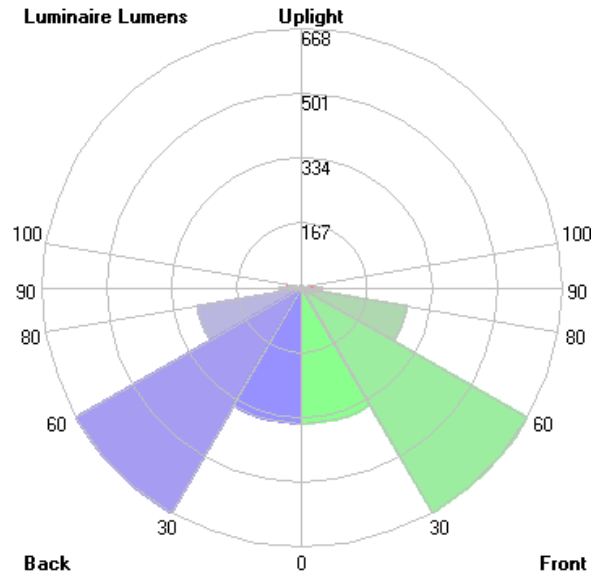
Lum. Classification System (LCS)

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	350.3	N.A.	12.8
FM (30-60)	668.5	N.A.	24.5
FH (60-80)	272.5	N.A.	10.0
FVH(80-90)	53.7	N.A.	2.0
BL (0-30)	350.3	N.A.	12.8
BM (30-60)	668.5	N.A.	24.5
BH (60-80)	272.5	N.A.	10.0
BVH(80-90)	53.7	N.A.	2.0
UL (90-100)	33.9	N.A.	1.2
UH (100-180)	5.4	N.A.	0.2
Total	2729.3	N.A.	100.0

BUG Rating B1-U2-G1



Mounting Height = 12 ft. Grid Spacing = 10 ft.

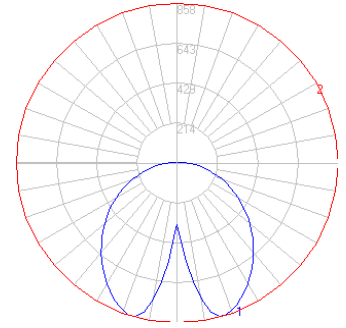


In the interest of product improvement, BEGA reserves the right to make technical changes without notice.

BEGA

Photometric Filename: 88164K27.ies

TEST: BE_88164K4.ies
 TEST LAB: BEGA
 DATE: 6/22/2015
 LUMINAIRE: 88 164K27
 LAMP: 24W LED



All results in accordance with IESNA LM-79-08

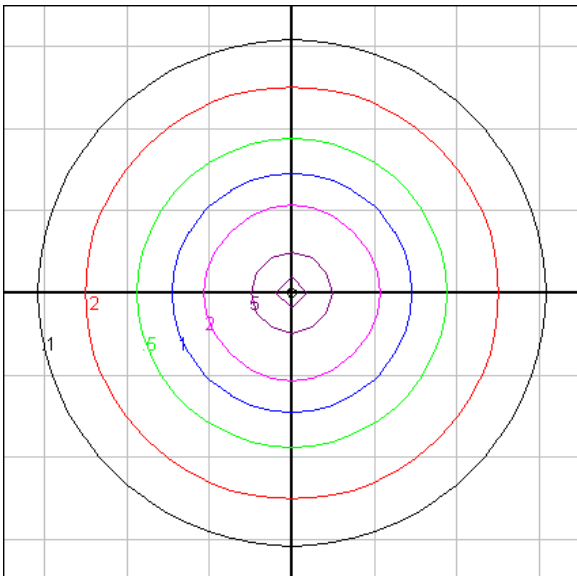
Characteristics

IES Classification	Type V
Longitudinal Classification	Very Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2586
Downward Total Efficiency	N.A.
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	89
Total Luminaire Watts	29
Ballast Factor	1.00
Upward Waste Light Ratio	0.01
Max. Cd.	857.79 (0H, 17.5V)
Max. Cd. (<90 Vert.)	857.79 (0H, 17.5V)
Max. Cd. (At 90 Deg. Vert.)	54.45 (2.1%Lum)
Max. Cd. (80 to <90 Deg. Vert.)	138.06 (5.3%Lum)
Cutoff Classification (deprecated)	N.A. (absolute)

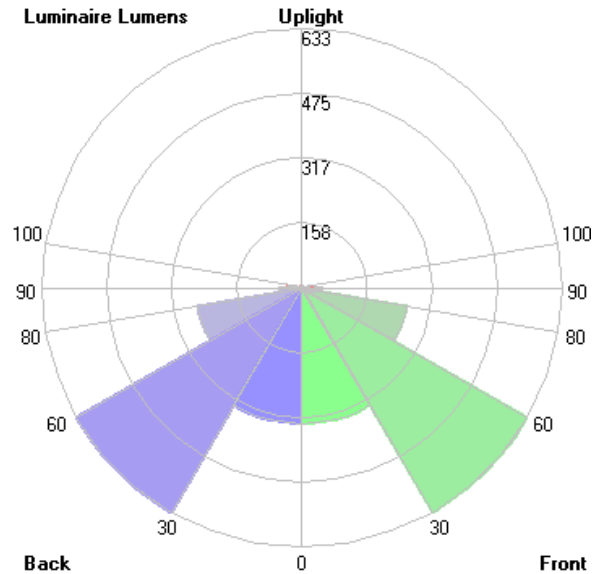
Lum. Classification System (LCS)

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	331.8	N.A.	12.8
FM (30-60)	633.3	N.A.	24.5
FH (60-80)	258.2	N.A.	10.0
FVH(80-90)	50.8	N.A.	2.0
BL (0-30)	331.8	N.A.	12.8
BM (30-60)	633.3	N.A.	24.5
BH (60-80)	258.2	N.A.	10.0
BVH(80-90)	50.8	N.A.	2.0
UL (90-100)	32.1	N.A.	1.2
UH (100-180)	5.1	N.A.	0.2
Total	2585.4	N.A.	100.0

BUG Rating B1-U2-G1



Mounting Height = 12 ft. Grid Spacing = 10 ft.



In the interest of product improvement, BEGA reserves the right to make technical changes without notice.