

PRODUCT SPECIFICATIONS

LED Light Engine Consistent fixture to fixture color consistency within a 2-step MacAdam ellipse • 2700K, 3000K, 3500K, or 4000K color temperatures are available with 80 CRI minimum • 2700K and 3000K also available with 90 CRI minimum.

Modular Optics 45° cutoff to source and source image • Available with field interchangeable optics in 15°, 24°, 35°, and 45° distributions • Additional distributions of 20°, 30°, 40°, 50°, 55°, 60° and 60° x 20° FWHM can be achieved with the use of the diffusing films and spot primary optic.

Reflector Black reflector shields the interior of the housing.

Trims Style Self Flanged and Flangeless styles are available • Flangeless is compatible with gypsum or solid ceiling materials such as wood, stone, or tile.

LED Driver Choice of two drivers to accommodate voltages from 120-277 volts AC at 50/60Hz • Dims as low as 1% with most incandescent and electronic low voltage dimmers or 0-10V dimmers • For a list of compatible dimmers, refer to [ACLXLED2-DIM](#) • Power Factor > 0.9 • Field replaceable from above or below ceiling.

Life Rated for 50,000 hrs at 70% lumen maintenance.

Codes/Labels UL and cUL listed for damp locations • Wet location listed with WET option • ICAT new construction fixture meets energy code Air Leakage requirements per ASTM E283 • ENERGY STAR® certified with select trims and housings • Can be used to comply with Title 24, Part 6 with select trims and housings • ICAT new construction luminaire is Chicago Plenum (CCEA) approved standard • ICAT housings are rated for direct contact with insulation, including spray foam insulation with R-Value of 3.7 per inch or less • Union made.

New Construction Mounting Features patented (US Patent 8,038,113) Pro-VI™ bar hanger system, permitting quick placement of housing with 24" on-center joists or suspended ceilings • ICAT new construction luminaire also features vertically adjustable mounting brackets (butterfly brackets) • Centerline indicators on plaster frame and patented (US Patent 8,277,090) Tru-Line™ Platform featuring +/- 1/2" translation aids fixture alignment after installation, prior to drywall.

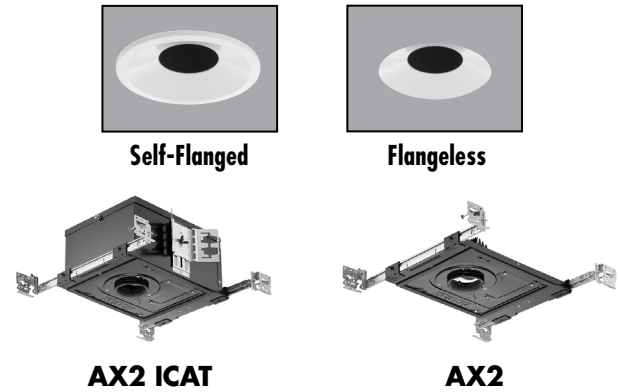
Wiring ICAT housing includes (2) 1/2" knockouts in access plate, and is compatible with rigid conduit and flexible supply • Non-IC housings include (2) 1/2" knockouts with pry-out slots in junction box and are compatible with flexible electrical supply only • All housings supplied with quick connect electrical connectors.

Ceiling Thickness 1/2" – 1 1/2" ceiling

Buy American Act This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to www.acuitybrands.com/buy-american for additional information.



**2" LED RECESSED
 DOWNLIGHT
 800/1200/1500 LUMEN
 ROUND DOWNLIGHT BEVEL
 NEW CONSTRUCTION
 AX2 D/AX2 A with 2DBV Trim**



Warranty 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.

ORDERING INFORMATION

Example: AX2 D G2 08LM 30K 80CRI 24D FPC 120 2DBV CD SF

HOUSING OPTIONS

Series / Housing Style	Lumens	CCT	CRI	Beam	Driver	Voltage ²	Options
AX2 D G2 New Construction Downlight	08LM 800 Lumens	27K 2700K	80CRI	15D 15° beam	FPC Phase cut dimming, 1% dim	120	CP ICAT IC, Air-Tight, Chicago Plenum
AX2 A G2 New Construction Universal ADJ/DL/WW	12LM 1200 Lumens	30K 3000K	90CRI¹	24D 24° beam	ZT 0-10V Dimming, 1% dim	MVOLT (120-277)	NLIGHT³ nLight dimming pack controls (Must mount remotely)
	15LM 1500 Lumens	35K 3500K	35D 35° beam				
	40K 4000K	45D 45° beam					

TRIM OPTIONS

Trim Style	Reflector Finish	Flange Style/Finish	Environment	Ceiling Installation
2DBV Downlight Bevel	BD Black Diffuse	Self-Flanged WHSF White painted flange BLSF Black painted flange Flangeless⁴ WHFM Flangeless, White trim BLFM Flangeless, Black trim	WET Wet location	Self-Flanged & Flangeless Wood/Stone/Tile --- Ceiling < .75" CTA2/120 Ceiling 0.75" - 1.20" CTA2/150 Ceiling 1.20" - 1.5" Flangeless Gypsum FMA2/075 Ceiling < .75" FMA2/120 Ceiling 0.75" - 1.20" FMA2/150 Ceiling 1.20" - 1.50"

NOTES

Ordering Notes
1. 90CRI available on 27K and 30K only 2. MVOLT standard on ZT. 120 standard on FPC 3. nLight compatible with ZT only 4. Flangeless trims in drywall ceilings must specify ceiling installation (FMA2)

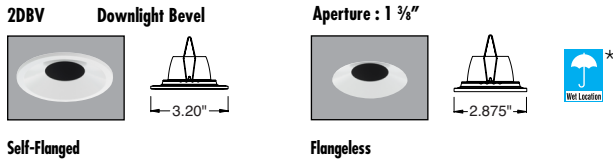
2" LED RECESSED DOWNLIGHT

800/1200/1500 LUMEN

ROUND DOWNLIGHT BEVEL NEW CONSTRUCTION

AX2 D/AX2 A with 2DBV Trim

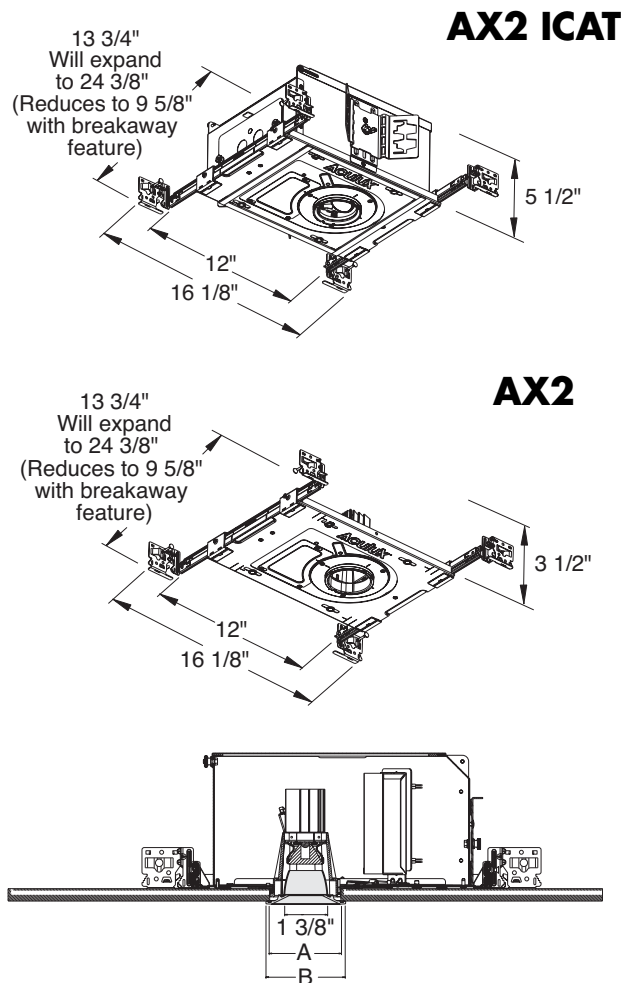
TRIM SELECTION



	CCT/CRI:	80CRI 27K, 30K, 35K, 40K 90CRI 27K, 30K
	Optic:	15D, 24D, 35D, 45D
	Trim Finish:	BD BLFM/BLSF, BD WHFM/WHSF

	Construction:	ICAT
	CCT/CRI:	90CRI 27K, 30K
	Optic:	15D, 24D, 35D, 45D
	Trim Finish:	BD BLFM/BLSF, BD WHFM/WHSF

NEW CONSTRUCTION



ACCESSORIES

Cat. #	Description
2AXG2OPT/15D	15° Spot Optic
2AXG2OPT/24D	24° Narrow Flood Optic
2AXG2OPT/35D	35° Flood Optic
2AXG2OPT/45D	45° Wide Flood Optic
AF2/10	10° Film (Use with 15D Optic)
AF2/20	20° Film (Use with 15D Optic)
AF2/30	30° Film (Use with 15D optic)
AF2/40	40° Film (Use with 15D Optic)
AF2/50	50° Film (Use with 15D Optic)
AF2/60	60° Film (Use with 15D optic)
AF2/90x1	90°x1° Film (Use with 15D Optic)
HB1	(2) Real Nail 3 Bar Hangers
HB26	(2) 26" C-Channel Bar Hangers
HB50	(2) 50" C-Channel Bar Hangers
LB27	(2) 27" Linear Bar Hangers
IIS 35 HE	Up to 35W Remote Mount Micro Inverter (AX2SQ 2A G2 15LM and AX2SQ 3A G2 12LM Excluded)

To order, specify catalog number.

DIFFUSING FILMS

To achieve the desired beam angle (FWHM), specify the following primary LED optic on the luminaire and order the diffusing film accessory from the table below

Desired FWHM	Primary Optic	Film	Desired FWHM	Primary Optic	Film
15°	15D	-	45°	45D	-
20°	15D	AF2/10	50°	15D	AF2/40
24°	24D	-	55°	15D	AF2/50
30°	15D	AF2/20	60°	15D	AF2/60
35°	35D	-	60°x20°	15D	AF2/90x1
40°	15D	AF2/30			

ELECTRICAL DATA

Lumen Package	08LM			12LM			15LM		
	Driver Option	FPC	ZT	FPC	ZT	FPC	ZT	FPC	ZT
Voltage	120	120	277	120	120	277	120	120	277
Input Power	10.0	9.9	10.1	14.7	14.3	14.3	17.3	16.5	16.4
Input Current	0.08	0.08	0.04	0.12	0.12	0.06	0.14	0.14	0.06
Frequency	50/60Hz			50/60Hz			50/60Hz		
Power Factor	0.99	0.99	0.9	0.99	0.99	0.92	0.99	0.99	0.92

Trim Style	Cutout Size (A)	Trim O.D. (B)
Self Flanged Trims	2-7/8"	3.20"
Flangeless Trims (Solid Ceiling)	2-7/8"	2.875"
Flangeless Trims (Drywall Ceiling)	3"	2.875"

Note: An accurate hole saw is recommended for best results

2" LED RECESSED DOWNLIGHT

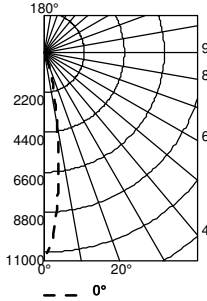
800/1200/1500 LUMEN

ROUND DOWNLIGHT BEVEL NEW CONSTRUCTION

AX2 D/AX2 A with 2DBV Trim

PHOTOMETRICS

AX2 D G2 15LM 30K 80CRI 15D FPC 120 2DBV BD, 3000K LEDs, input watts: 17.3, delivered lumens: 1297, LM/W = 75, test no. PT07172503, tested in accordance to IESNA LM-79



CP Summary

Beam Angle (°)	Footcandles
0°	11242
5°	8220
15°	1790
25°	186
35°	17
45°	2
55°	1
65°	1
75°	0
85°	0
90°	0

Coefficients of Utilization

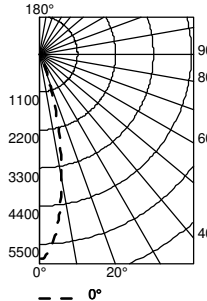
pc	20%		
	80%	70%	50%
pw	70%50%30%	50%30%10%	50%30%10%
0	119 119 119	116 116 116	111 111 111
1	116 114 112	112 110 109	108 106 105
2	112 109 106	107 105 103	104 103 101
3	109 105 102	104 101 99	102 99 97
4	107 102 99	101 98 95	99 96 94
5	104 99 96	98 95 93	97 94 92
6	102 97 93	96 93 90	95 92 90
7	100 94 91	94 90 88	93 90 88
8	98 92 89	92 88 86	91 88 86
9	96 90 87	90 86 84	89 86 84
10	94 88 85	88 85 83	87 84 82

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	1263	98.6	98.6
0° - 40°	1277	99.7	99.7
0° - 60°	1280	99.9	99.9
0° - 90°	1281	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	1281	100.0	100.0

CONE OF LIGHT - Beam : 15.9°			LUMINANCE (cd/sq.m)	
Distance to Illuminated Plane (ft)	Footcandles Beam Center	Beam Diameter	Degrees	Average Luminance
4	702.6	1.1	45	3841
6	312.3	1.7	55	1578
8	175.7	2.2	65	1339
10	112.4	2.8	75	1312
12	78.1	3.4	85	0

AX2 D G2 15LM 30K 80CRI 24D FPC 120 2DBV BD, 3000K LEDs, input watts: 17.3, delivered lumens: 1170, LM/W = 68, test no. PT07172511, tested in accordance to IESNA LM-79



CP Summary

Beam Angle (°)	Footcandles
0°	5950
5°	5264
15°	1995
25°	268
35°	22
45°	3
55°	1
65°	1
75°	0
85°	0
90°	0

Coefficients of Utilization

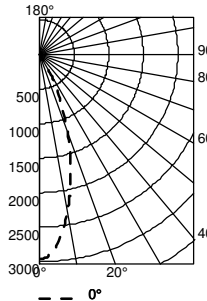
pc	20%		
	80%	70%	50%
pw	70%50%30%	50%30%10%	50%30%10%
0	119 119 119	116 116 116	111 111 111
1	115 113 111	111 109 108	107 106 105
2	112 108 105	107 104 102	104 102 100
3	108 104 101	103 100 97	100 98 96
4	105 100 97	99 96 93	97 94 92
5	103 97 93	96 93 90	95 92 89
6	100 94 90	93 90 87	92 89 86
7	97 91 87	91 87 84	90 86 84
8	95 89 85	88 85 82	87 84 82
9	93 86 83	86 82 80	85 82 80
10	90 84 81	84 80 78	83 80 78

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	1140	98.2	98.2
0° - 40°	1157	99.6	99.6
0° - 60°	1160	99.9	99.9
0° - 90°	1161	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	1161	100.0	100.0

CONE OF LIGHT - Beam : 24.1°			LUMINANCE (cd/sq.m)	
Distance to Illuminated Plane (ft)	Footcandles Beam Center	Beam Diameter	Degrees	Average Luminance
4	371.9	1.7	45	4321
6	165.3	2.6	55	1578
8	93.0	3.4	65	1339
10	59.5	4.3	75	1749
12	41.3	5.1	85	0

AX2 D G2 15LM 30K 80CRI 35D FPC 120 2DBV BD, 3000K LEDs, input watts: 17.3, delivered lumens: 1105, LM/W = 64, test no. PT07172619, tested in accordance to IESNA LM-79



CP Summary

Beam Angle (°)	Footcandles
0°	2970
5°	2777
15°	1740
25°	655
35°	88
45°	6
55°	1
65°	1
75°	1
85°	0
90°	0

Coefficients of Utilization

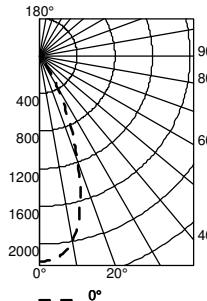
pc	20%		
	80%	70%	50%
pw	70%50%30%	50%30%10%	50%30%10%
0	119 119 119	116 116 116	111 111 111
1	115 112 110	110 108 107	106 105 103
2	110 106 103	105 102 99	101 99 97
3	106 101 97	100 96 93	97 94 92
4	102 96 92	95 91 88	93 90 87
5	99 92 87	91 87 84	89 86 83
6	95 88 83	87 83 80	86 82 79
7	92 84 80	84 79 76	83 79 76
8	89 81 76	81 76 73	80 76 73
9	86 78 73	78 73 70	77 73 70
10	83 75 71	75 70 67	74 70 67

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	1024	93.1	93.1
0° - 40°	1091	99.2	99.2
0° - 60°	1099	99.9	99.9
0° - 90°	1100	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	1100	100.0	100.0

CONE OF LIGHT - Beam : 34.3°			LUMINANCE (cd/sq.m)	
Distance to Illuminated Plane (ft)	Footcandles Beam Center	Beam Diameter	Degrees	Average Luminance
4	185.6	2.5	45	9762
6	82.5	3.7	55	2367
8	46.4	4.9	65	2142
10	29.7	6.2	75	2186
12	20.6	7.4	85	0

AX2 D G2 15LM 30K 80CRI 45D FPC 120 2DBV BD, 3000K LEDs, input watts: 17.3, delivered lumens: 1092, LM/W = 63, test no. PT07172627, tested in accordance to IESNA LM-79



CP Summary

Beam Angle (°)	Footcandles
0°	2182
5°	2151
15°	1664
25°	717
35°	137
45°	5
55°	1
65°	1
75°	1
85°	0
90°	0

Coefficients of Utilization

pc	20%		
	80%	70%	50%
pw	70%50%30%	50%30%10%	50%30%10%
0	119 119 119	116 116 116	111 111 111
1	114 112 110	110 108 106	106 104 103
2	110 106 102	104 101 98	101 98 96
3	105 100 96	99 95 92	96 93 90
4	101 95 90	94 90 86	92 88 85
5	97 90 86	90 85 82	88 84 81
6	94 86 81	85 81 77	84 80 77
7	90 82 77	82 77 74	81 76 73
8	87 79 74	78 74 70	77 73 70
9	84 75 71	75 70 67	74 70 67
10	81 72 68	72 67 64	71 67 64

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	980	90.1	90.1
0° - 40°	1078	99.1	99.1
0° - 60°	1087	99.9	99.9
0° - 90°	1089	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	1089	100.0	100.0

CONE OF LIGHT - Beam : 41.9°			LUMINANCE (cd/sq.m)	
Distance to Illuminated Plane (ft)	Footcandles Beam Center	Beam Diameter	Degrees	Average Luminance
4	136.4	3.1	45	7681
6	60.6	4.6	55	2565
8	34.1	6.1	65	2142
10	21.8	7.7	75	2186
12	15.2	9.2	85	0

LUMEN OUTPUT MULTIPLIERS

Color Temperature	CRI	Multiplier
2700K	80	0.95
3000K	80	1.00
3500K	80	1.05
4000K	80	1.10

Color Temperature	CRI	Multiplier
2700K	90	0.83
3000K	90	0.87

Lumen Package	Multiplier
800	0.58
1200	0.86
1500	1.00

2" LED RECESSED DOWNLIGHT

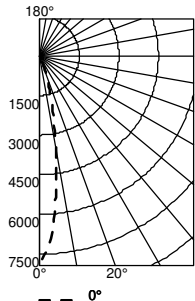
800/1200/1500 LUMEN

ROUND DOWNLIGHT BEVEL NEW CONSTRUCTION

AX2 D/AX2 A with 2DBV Trim and WET Option

PHOTOMETRICS

AX2 D G2 15LM 30K 80CRI 15D FPC 120 2DBV BD WET, 3000K LEDs, input watts: 17.3, delivered lumens: 1159, LM/W = 67, test no. PT07172505, tested in accordance to IESNA LM-79



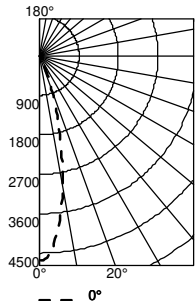
CP Summary	
0°	0°
0°	7774
5°	6214
15°	1686
25°	258
35°	35
45°	7
55°	2
65°	1
75°	0
85°	0
90°	0

Coefficients of Utilization				
pf	20%			
	80%	70%	50%	
pc	70%	50%	30%	10%
0	119	119	119	116
1	115	113	112	111
2	112	108	106	107
3	109	104	101	103
4	106	101	97	100
5	103	97	94	97
6	100	95	91	94
7	98	92	88	91
8	96	90	86	89
9	93	87	84	87
10	91	85	82	85

Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Fixture
0° - 30°	1113	97.0	97.0
0° - 40°	1138	99.2	99.2
0° - 60°	1146	99.9	99.9
0° - 90°	1148	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	1148	100.0	100.0

CONE OF LIGHT - Beam : 18.7°			LUMINANCE (cd/sq.m)	
Distance to Illuminated Plane (ft)	Footcandles Beam Center	Beam Diameter	Degrees	Average Luminance
4	485.9	1.3	45	10402
6	216.0	2.0	55	4538
8	121.5	2.6	65	2945
10	77.7	3.3	75	1312
12	54.0	4.0	85	0

AX2 D G2 15LM 30K 80CRI 24D FPC 120 2DBV BD WET, 3000K LEDs, input watts: 17.3, delivered lumens: 1047, LM/W = 61, test no. PT07172513, tested in accordance to IESNA LM-79



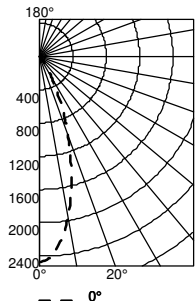
CP Summary	
0°	0°
0°	4682
5°	4193
15°	1745
25°	319
35°	41
45°	7
55°	2
65°	1
75°	0
85°	0
90°	0

Coefficients of Utilization				
pf	20%			
	80%	70%	50%	
pc	70%	50%	30%	10%
0	119	119	119	116
1	115	113	111	109
2	111	108	105	106
3	108	103	100	102
4	104	99	95	98
5	101	96	91	95
6	98	92	88	92
7	96	89	85	89
8	93	87	83	86
9	91	84	80	84
10	88	82	78	81

Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Fixture
0° - 30°	1000	96.1	96.1
0° - 40°	1031	99.0	99.0
0° - 60°	1039	99.9	99.9
0° - 90°	1041	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	1041	100.0	100.0

CONE OF LIGHT - Beam : 25.2°			LUMINANCE (cd/sq.m)	
Distance to Illuminated Plane (ft)	Footcandles Beam Center	Beam Diameter	Degrees	Average Luminance
4	292.6	1.8	45	11842
6	130.1	2.7	55	4538
8	73.2	3.6	65	2945
10	46.8	4.5	75	1312
12	32.5	5.4	85	0

AX2 D G2 15LM 30K 80CRI 35D FPC 120 2DBV BD WET, 3000K LEDs, input watts: 17.3, delivered lumens: 987, LM/W = 57, test no. PT07172621, tested in accordance to IESNA LM-79



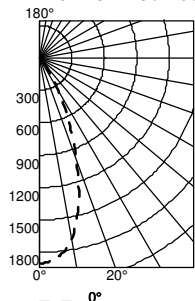
CP Summary	
0°	0°
0°	2467
5°	2325
15°	1479
25°	580
35°	118
45°	17
55°	4
65°	1
75°	0
85°	0
90°	0

Coefficients of Utilization				
pf	20%			
	80%	70%	50%	
pc	70%	50%	30%	10%
0	119	119	119	116
1	114	112	110	108
2	110	106	102	104
3	106	100	96	99
4	102	95	91	94
5	98	91	86	90
6	94	87	82	86
7	91	83	78	82
8	87	80	75	79
9	84	76	72	76
10	81	73	69	73

Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Fixture
0° - 30°	880	89.5	89.5
0° - 40°	962	97.9	97.9
0° - 60°	981	99.8	99.8
0° - 90°	983	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	983	100.0	100.0

CONE OF LIGHT - Beam : 34.9°			LUMINANCE (cd/sq.m)	
Distance to Illuminated Plane (ft)	Footcandles Beam Center	Beam Diameter	Degrees	Average Luminance
4	154.2	2.5	45	27685
6	68.5	3.8	55	7300
8	38.5	5.0	65	3749
10	24.7	6.3	75	1749
12	17.1	7.5	85	0

AX2 D G2 15LM 30K 80CRI 45D FPC 120 2DBV BD WET, 3000K LEDs, input watts: 17.3, delivered lumens: 969, LM/W = 56, test no. PT07172629, tested in accordance to IESNA LM-79



CP Summary	
0°	0°
0°	1901
5°	1858
15°	1394
25°	621
35°	154
45°	23
55°	4
65°	2
75°	1
85°	0
90°	0

Coefficients of Utilization				
pf	20%			
	80%	70%	50%	
pc	70%	50%	30%	10%
0	119	119	116	111
1	114	112	110	108
2	110	105	102	104
3	105	99	95	98
4	101	94	89	93
5	97	89	84	88
6	93	85	80	84
7	89	81	76	80
8	86	77	72	76
9	82	74	69	73
10	79	71	66	70

Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Fixture
0° - 30°	836	86.5	86.5
0° - 40°	940	97.2	97.2
0° - 60°	965	99.8	99.8
0° - 90°	967	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	967	100.0	100.0

CONE OF LIGHT - Beam : 41.2°			LUMINANCE (cd/sq.m)	
Distance to Illuminated Plane (ft)	Footcandles Beam Center	Beam Diameter	Degrees	Average Luminance
4	118.8	3.0	45	36327
6	52.8	4.5	55	8286
8	29.7	6.0	65	4016
10	19.0	7.5	75	2186
12	13.2	9.0	85	0

LUMEN OUTPUT MULTIPLIERS

Color Temperature	CRI	Multiplier
2700K	80	0.95
3000K	80	1.00
3500K	80	1.05
4000K	80	1.10

Color Temperature	CRI	Multiplier
2700K	90	0.83
3000K	90	0.87

Lumen Package	Multiplier
800	0.58
1200	0.86
1500	1.00