

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 are also available with 90 CRI minimum.

Modular Optics 50° cutoff to source and source image • Available with field interchangeable optics in 18° Spot, 24° Narrow Flood, 35° Flood, and 45° wide flood distributions • Additional distributions of 20°, 30°, 50° and 55° FWHM can be achieved with the use of the diffusing films and spot primary optic.

Reflector .040" aluminum reflector in clear specular, black specular, clear diffuse, white or wheat diffuse Alzak finish provides 50° cut-off.

Trims Style Self Flanged and Flangeless styles (drywall only) are available • Flange is same finish as reflector unless optional painted white flange is specified

LED Driver Choice of two drivers to accommodate voltages from 120-277 volts AC at 50/60Hz • Compatible with most incandescent and electronic low voltage dimmers or 0-10V dimmers • For a list of compatible dimmers, refer to [ACULUX LED2-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 or wet locations • ENERGY STAR® certified with select trim finishes • Union made.

Remodel Installation Fixture installs from below the ceiling and secured to remodel ring.

Wiring Includes (2) 1/2" knockouts equipped with pryout slots and are compatible with flexible electrical supply only • Supplied with quick connect electrical connectors.

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

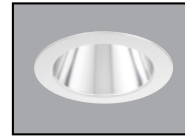
Warranty 5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx



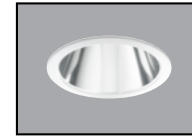
2" LED RECESSED DOWNLIGHT
800/1200 LUMEN

ROUND PARABOLIC DOWNLIGHT
 REMODEL

AX2 DR / AX2 AR with 2DP Trim



Self-Flanged



Flangeless



AX2 DR

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 DR 08LM 30K 80CRI 24D FPC 120 2DP CS SF

HOUSING OPTIONS	Series / Housing Style		Lumens		CCT		CRI		Beam		Driver		Voltage ¹	Options
	AX2 DR	Remodel Downlight	08LM	800 Lumens	27K	2700K	80CRI	18D	18° beam	FPC	Phase cut dimming, 5% dim	120	NLIGHT ²	nLight dimming pack controls
AX2 AR	Remodel Universal ADJ/DL/WW	12LM	1200 Lumens	30K	3000K	90CRI ⁴	24D	24° beam	ZT	0-10V Dimming, 10% dim	MVOLT (120-277)			
				35K	3500K		35D	35° beam						
				40K	4000K		45D	45° beam						

TRIM OPTIONS	Trim Style	Reflector Finish	Flange Style / Finish	Environment	Ceiling Installation
	DOWNLIGHT	BS	Black Specular	SELF-FLANGED	WET Wet location
2DP	Parabolic Downlight	CD	SF		Ceiling ≤ .75"
		CS	WHSF		CTA2/120 Ceiling 0.75" - 1.20"
		W	FLANGELESS ³		CTA2/150 Ceiling 1.20" - 1.5"
		WTD	FM		FLANGELESS, GYPSUM
					FMA2R Ceiling 0.5" ≤ 1.5"

Ordering Notes

¹ MVOLT standard on ZT. 120 Standard on FPC. ⁴ Available on 27K and 30K only.
² NLIGHT compatible with ZT only.
³ Flangeless trims in drywall ceiling must be specified with flangeless ceiling installation (FMA2R).

2" LED RECESSED DOWNLIGHT

800/1200 LUMEN

ROUND PARABOLIC DOWNLIGHT REMODEL

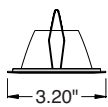
AX2 DR / AX2 AR with 2DP Trim

TRIM SELECTION

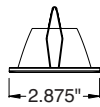
2DP Parabolic Downlight Trim



Self-Flanged



Flangeless



* With WET option

	CCT/CRI:	80CRI 27K, 30K, 35K, 40K
	Optic:	18D, 24D, 35D, 45D
	Trim Finish:	CS, CD, WTD, W

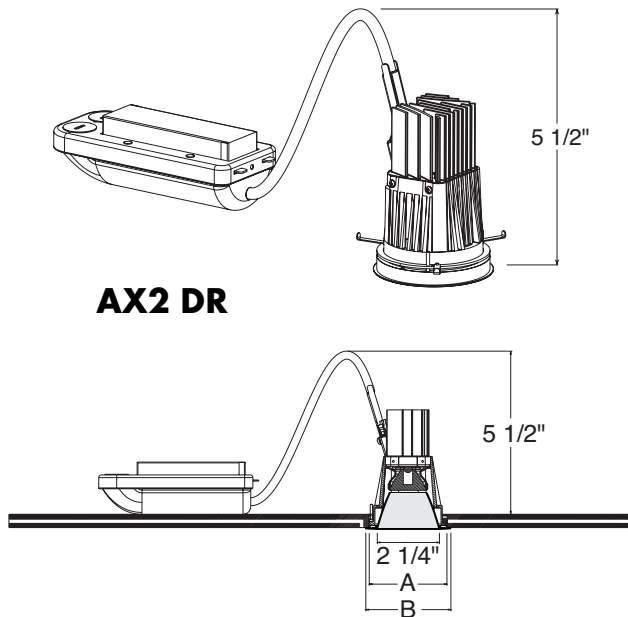
ACCESSORIES

Cat. #	Description
2AXOPT/18D	18° Spot Optic
2AXOPT/24D	24° Narrow Flood Optic
2AXOPT/35D	35° Flood Optic
2AXOPT/45D	45° Wide Flood Optic
AF2/10	10° Film (Use with Spot Optic)
AF2/20	20° Film (Use with Spot Optic)
AF2/40	40° Film (Use with Spot Optic)
AF2/50	50° Film (Use with Spot Optic)
AF2/90x1	90°x1° Film (Use with Spot Optic)
EMI20	20W Emergency Lighting Inverter

To order, specify catalog number.

DIMENSIONS

REMODEL



AX2 DR

AX2 AR

Trim Style	Cutout Size (A)	Trim O.D. (B)
Self Flanged Trims	2.953" (75mm)	3.20"
Flangeless Trims (Drywall Ceiling)	3"	2.875"

Note: An accurate hole saw is recommended for best results.

DIFFUSING FILMS

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

Desired FWHM	Primary Optic	Film
18°	18D	-
20°	18D	AF2/10
24°	24D	-
30°	18D	AF2/20
35°	35D	-
45°	45D	-
50°	18D	AF2/40
55°	18D	AF2/50
60°x20°	18D	AF2/90x1

ELECTRICAL DATA

Lumen Package	08LM			12LM		
	FPC	ZT		FPC	ZT	
Voltage	120	120	277	120	120	277
Input Power	10.1	9.6	9.6	14.8	14.8	14.6
Input Current	0.09	0.08	0.04	0.12	0.12	0.06
Frequency	50/60Hz			50/60Hz		
Power Factor	0.99	0.99	0.93	0.99	0.99	0.95

LUMEN OUTPUT MULTIPLIERS

Color Temperature	CRI	Multiplier
2700K	80	0.93
3000K	80	1.00
3500K	80	1.02
4000K	80	1.06
2700K	90	0.71
3000K	90	0.77

2" LED RECESSED DOWNLIGHT

800/1200 LUMEN

ROUND PARABOLIC DOWNLIGHT REMODEL

AX2 DR / AX2 AR with 2DP Trim

PHOTOMETRICS

SPOT

PHOTOMETRIC REPORT

Test Report #: PT02140110

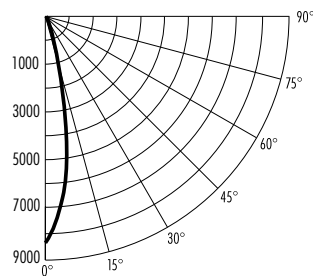
Catalog No: AX2 DR 12LM 30K

80CRI 18D FPC 120

2DP CD

Luminaire Spacing Criterion: 0.34

Luminaire LPW: 85



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees	Candelas
Vertical	0°
0	8295
5	7082
15	1924
25	266
35	41
45	2
55	0
65	0
75	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)

Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	91	84	79
5.0'	58	54	50
6.0'	40	37	35
7.0'	33	30	28
8.0'	26	24	22
9.0'	20	18	17
10.0'	15	13	13

INITIAL FOOTCANDLES

(One Unit, 15.1W, 19.6° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
6	230.4	2.1'
8	129.6	2.8'
10	83.0	3.5'
12	57.6	4.1'

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture
0-30°	1255	97.7
0-40°	1282	99.8
0-60°	1285	100.0
0-90°	1285	100.0

LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	926
55	67
65	0
75	0
85	0

NARROW FLOOD

PHOTOMETRIC REPORT

Test Report #: PT02140106

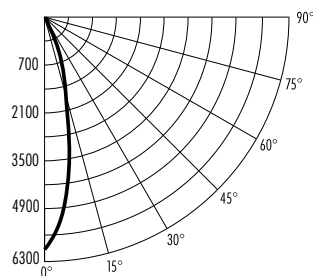
Catalog No: AX2 DR 12LM 30K

80CRI 24D FPC 120

2DP CD

Luminaire Spacing Criterion: 0.38

Luminaire LPW: 79



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees	Candelas
Vertical	0°
0	6191
5	5258
15	1855
25	360
35	46
45	5
55	1
65	0
75	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)

Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	84	77	72
5.0'	54	49	46
6.0'	37	34	32
7.0'	30	28	26
8.0'	24	22	20
9.0'	18	17	16
10.0'	13	12	11

INITIAL FOOTCANDLES

(One Unit, 15.1W, 22.3° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
6	172.0	2.4'
8	96.7	3.2'
10	61.9	3.9'
12	43.0	4.7'

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture
0-30°	1149	96.4
0-40°	1185	99.5
0-60°	1191	100.0
0-90°	1192	100.0

LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	2232
55	470
65	273
75	149
85	0

Fixtures tested to IES recommended standard for solid state lighting per LM-79-08. Photometric performance on a single unit represents a baseline of performance for the fixture. Results may vary in the field. Photometry is at 3000K CCT.

2" LED RECESSED DOWNLIGHT 800/1200 LUMEN

ROUND PARABOLIC DOWNLIGHT REMODEL AX2 DR / AX2 AR with 2DP Trim (continued)

PHOTOMETRICS

FLOOD

PHOTOMETRIC REPORT

Test Report #: PT02140102

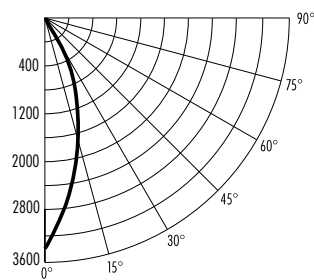
Catalog No: AX2 DR 12LM 30K

80CRI 35D FPC 120

2DP CD

Luminaire Spacing Criterion: 0.52

Luminaire LPW: 75



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees	Candelas
Vertical	0°
0	3351
5	2793
15	1766
25	679
35	79
45	7
55	1
65	0
75	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60"x60' room)

Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	79	71	65
5.0'	51	46	42
6.0'	35	32	29
7.0'	28	26	23
8.0'	22	20	18
9.0'	17	16	14
10.0'	13	11	10

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture
0-30°	1049	93.0
0-40°	1119	99.2
0-60°	1127	99.9
0-90°	1128	100.0

INITIAL FOOTCANDLES

(One Unit, 15.1W, 31.6° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
6	93.1	3.4'
8	52.4	4.5'
10	33.5	5.7'
12	23.3	6.8'

LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	3158
55	738
65	364
75	298
85	442

WIDE FLOOD

PHOTOMETRIC REPORT

Test Report #: PT02140114

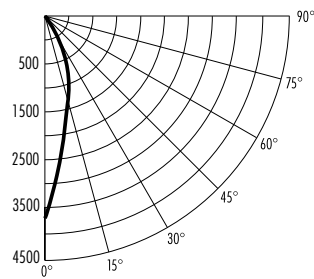
Catalog No: AX2 DR 12LM 30K

80CRI 45D FPC 120

2DP CD

Luminaire Spacing Criterion: 0.34

Luminaire LPW: 73



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees	Candelas
Vertical	0°
0	3642
5	2631
15	1429
25	774
35	131
45	11
55	2
65	1
75	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60"x60' room)

Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	77	69	62
5.0'	49	44	40
6.0'	34	31	27
7.0'	28	25	22
8.0'	22	20	18
9.0'	17	15	13
10.0'	12	11	10

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture
0-30°	976	88.9
0-40°	1079	98.2
0-60°	1097	99.9
0-90°	1099	100.0

INITIAL FOOTCANDLES

(One Unit, 15.1W, 20.8° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
6	101.2	2.2'
8	56.9	2.9'
10	36.4	3.7'
12	25.3	4.4'

LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	5009
55	1342
65	820
75	298
85	442

Fixtures tested to IES recommended standard for solid state lighting per LM-79-08. Photometric performance on a single unit represents a baseline of performance for the fixture. Results may vary in the field. Photometry is at 3000K CCT.

2" LED RECESSED DOWNLIGHT 800/1200 LUMEN

ROUND PARABOLIC DOWNLIGHT REMODEL

AX2 DR / AX2 AR with 2DP Trim with WET option

PHOTOMETRICS

SPOT

PHOTOMETRIC REPORT

Test Report #: PT02140109

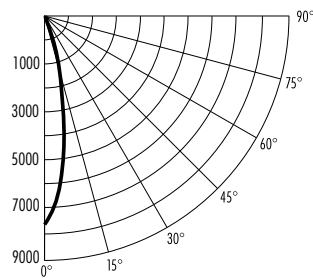
Catalog No: AX2 DR 12LM 30K

80CRI 18D FPC 120

2DP CD WET

Luminaire Spacing Criterion: 0.36

Luminaire LPW: 78



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees	Candelas
Vertical	0°
0	7086
5	6018
15	1749
25	283
35	45
45	4
55	0
65	0
75	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)

Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	83	76	71
5.0'	53	49	45
6.0'	37	34	32
7.0'	30	27	26
8.0'	24	22	20
9.0'	18	17	15
10.0'	13	12	11

INITIAL FOOTCANDLES

(One Unit, 15.1W, 20.3° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
6	196.8	2.1'
8	110.7	2.9'
10	70.9	3.6'
12	49.2	4.3'

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture
0-30°	1139	97.1
0-40°	1169	99.7
0-60°	1172	100.0
0-90°	1172	100.0

LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	1579
55	67
65	0
75	0
85	0

NARROW FLOOD

PHOTOMETRIC REPORT

Test Report #: PT02140105

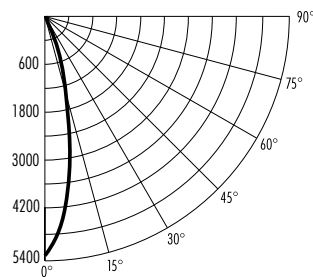
Catalog No: AX2 DR 12LM 30K

80CRI 24D FPC 120

2DP CD WET

Luminaire Spacing Criterion: 0.40

Luminaire LPW: 72



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees	Candelas
Vertical	0°
0	5307
5	4574
15	1687
25	360
35	53
45	6
55	1
65	0
75	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)

Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	77	70	65
5.0'	49	45	42
6.0'	34	31	29
7.0'	28	25	24
8.0'	22	20	19
9.0'	17	15	14
10.0'	12	11	10

INITIAL FOOTCANDLES

(One Unit, 15.1W, 23° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
6	147.4	2.4'
8	82.9	3.3'
10	53.1	4.1'
12	36.9	4.9'

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture
0-30°	1042	95.7
0-40°	1082	99.4
0-60°	1089	99.9
0-90°	1089	100.0

LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	2613
55	537
65	364
75	149
85	442

Fixtures tested to IES recommended standard for solid state lighting per LM-79-08. Photometric performance on a single unit represents a baseline of performance for the fixture. Results may vary in the field. Photometry is at 3000K CCT.

2" LED RECESSED DOWNLIGHT 800/1200 LUMEN

ROUND PARABOLIC DOWNLIGHT REMODEL

AX2 DR / AX2 AR with 2DP Trim with WET option (continued)

PHOTOMETRICS

FLOOD

PHOTOMETRIC REPORT

Test Report #: PT02140101

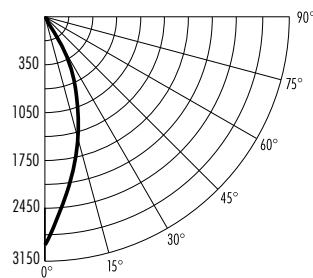
Catalog No: AX2 DR 12LM 30K

80CRI 35D FPC 120

2DP CD WET

Luminaire Spacing Criterion: 0.54

Luminaire LPW: 69



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees	Candelas
Vertical	0°
0	2907
5	2471
15	1571
25	637
35	94
45	9
55	1
65	0
75	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)

Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	72	65	59
5.0'	46	42	38
6.0'	32	29	26
7.0'	26	24	21
8.0'	21	19	17
9.0'	16	14	13
10.0'	12	10	9

INITIAL FOOTCANDLES

(One Unit, 15.1W, 32.4° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
6	80.8	3.5'
8	45.4	4.6'
10	29.1	5.8'
12	20.2	7.0'

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture
0-30°	948	91.6
0-40°	1025	98.9
0-60°	1035	99.9
0-90°	1035	100.0

LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	3757
55	805
65	455
75	149
85	0

WIDE FLOOD

PHOTOMETRIC REPORT

Test Report #: PT02140113

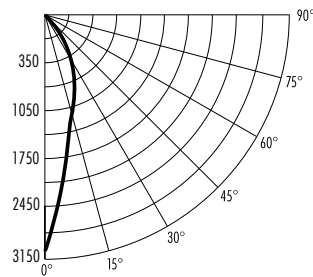
Catalog No: AX2 DR 12LM 30K

80CRI 45D FPC 120

2DP CD WET

Luminaire Spacing Criterion: 0.38

Luminaire LPW: 66



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees	Candelas
Vertical	0°
0	3097
5	2311
15	1291
25	699
35	130
45	14
55	3
65	1
75	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)

Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	70	63	56
5.0'	45	40	36
6.0'	31	28	25
7.0'	25	23	20
8.0'	20	18	16
9.0'	15	14	12
10.0'	11	10	9

INITIAL FOOTCANDLES

(One Unit, 15.1W, 22.9° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
6	86.0	2.4'
8	48.4	3.2'
10	31.0	4.1'
12	21.5	4.9'

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixture
0-30°	878	87.8
0-40°	979	97.9
0-60°	998	99.8
0-90°	1000	100.0

LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	6098
55	1410
65	820
75	446
85	0

Fixtures tested to IES recommended standard for solid state lighting per LM-79-08. Photometric performance on a single unit represents a baseline of performance for the fixture. Results may vary in the field. Photometry is at 3000K CCT.