

JADRK SERIES 6", 8" & 10" ARCHITECTURAL RETROFIT DOWNLIGHT SERIES



PRODUCT DESCRIPTION

The Jademar **JADRK Series** of Commercial LED Downlights are the ideal way to upgrade virtually any existing incandescent, CFL and HID commercial open frame rough-in section to high-performance LED illumination in a matter of minutes. It is provided with spring steel friction clips allowing for installation. Quick disconnection in j-box allows for easy wiring of retrofit conduit whip assembly without reflector interference.

FEATURES

- **Structure:** Spun aluminum reflector integrated with haze finish and white trim ring with shadow free, deeply regressed diffusing lens conceals the LEDs from direct view.
- 18" Flex Cable Included Standard.
- **LED Driver:** Powered by Class 2 high efficiency LED driver, with a standard 1-10V driver which continuously dims to 10% that works with many types of controls. Tested Dimmers: Lutron[®] Diva-Dvtv, Leviton[®] IP-710-DL.
- **THD: <20% Power Factor: >0.9**
- **Input Voltage:** Standard electronic drivers are cULus recognized and available for 100-277V.
- **CRI:** Minimum 80 color rendering index
- **CCT:** 3000K, 3500K, 4000K, and 5000K with a great color consistency
- **LED:** life Minimum 50,000 Hrs with 87.8% of lumen maintenance in 25°C ambient temperature, in compliance with IES LM-80 testing measurements.
- **Mounting:** It is provided with spring steel friction clips allowing for installation in a variety of commercial recessed open frame rough-in sections.
- **Thermal Management:** Aluminum housing acting as the heat sink to maximize life.
- **Optional Emergency Option:** Optional low voltage 100-277V emergency LED driver for lighting up to 120 minutes in event of power failure, that meets critical life-safety lighting requirements.



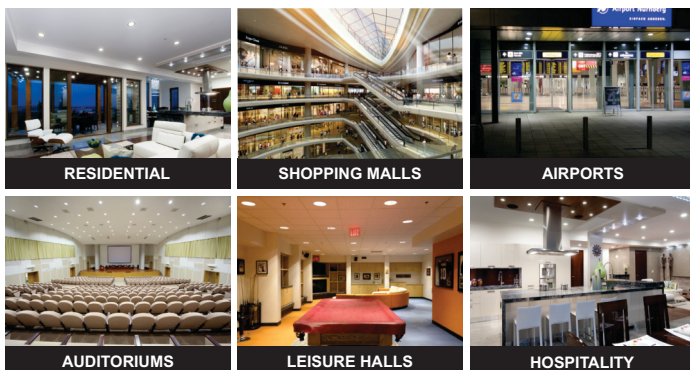
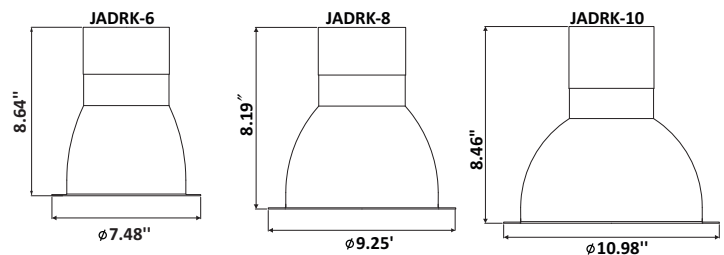
PERFORMANCE SUMMARY

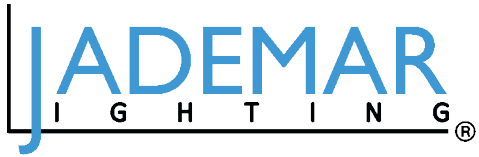
Trim Sizes:	6", 8", and 10" Trim Options
Input Power:	18W/27W/40W/80W Static Power & Power Selectable Options
Efficacy:	up to 87 lm/W
CCT Options:	3000K/3500K/4000K (CCT Selectable Options) 3000K/3500K/4000K/5000K (Static CCT Options)
CRI:	CRI: >80
Input Voltage:	100-277VAC
Dimming	0-10V Dimming
Lifetime Based on TM21:	L70 ≥147,000 / L80 ≥108,000 / L90 ≥61,000 Hrs.
Certifications & Compliance	UL Listed for Damp Locations
Warranty:	10 Years Limited Warranty

CERTIFICATIONS & COMPLIANCE



PRODUCT DIMENSIONS





SPECIFICATION SUBMITTAL DETAIL

Project Name/Type:		Date:
Catalog/Part #:		

JADRK 4", 6", 8" & 10" LED Architectural Retrofit Downlight Series Ordering Information / Example: **JADRK-6-40W-CPS-D**

Product Series	Trim Size	Wattage	CCT	CRI	Controls & Dimming	Options
JADRK	6 (6" Trim) 8 (8" Trim) 10 (10" Trim)	80W-PS (Power Selectable 50W/65W/80W)	30K (3000K) 35K (3500K) 40K (4000K) 50K (5000K)	Blank (80 CRI) Standard	D (0-10V Dimming)	EM8 (Emergency Battery Pack 8W) EM15 (Emergency Battery Pack 15W)
		40W-CPS (Power Selectable 18W/27W/40W)	CPS (CCT Selectable 30K/35K/40K)			

Electrical & Performance Data Table

Model Number	JADRK-6-80W	JADRK-8-80W	JADRK-10-80W	JADRK-6-40W	JADRK-8-40W	JADRK-10-40W
Trim Size	6"	8"	10"	6"	8"	10"
Input Wattage	80W-PS			40W-CPS		
Power Selectable (PS)	50W / 65W / 80W			18W / 27W / 40W		
CCT Options	Static CCT 3000K / 3500K / 4000K / 5000K			CCT Selectable 3000K / 3500K / 4000K		
Efficacy (lms/W)	85			85		
Lumen Output (lms)	4250 / 5525 / 6800			1530 / 2295 / 3400		
Input Voltage	100-277VAC					
Dimming	0-10V Dimming					
THD	<20%					
CRI	>80					
Power Factor	>0.9					
Lifetime Based on TM21	L70 ≥147,000 Hrs. / L80 ≥108,000 Hrs. / L90 ≥61,000 Hrs.					
Certifications & Compliance	UL Listed / Rated for Damp Location / FCC					
Limited Warranty	10 Years					

FIELD INSTALLED OPTIONS

Item Number	Description
JADRK-HF-6	Housing Frame for 6" Downlight
JADRK-HF-8	Housing Frame for 8" Downlight
JADRK-HF-10	Housing Frame for 10" Downlight
JADRK-EM8	Emergency Battery Pack 8W
JADRK-EM15	Emergency Battery Pack 15W



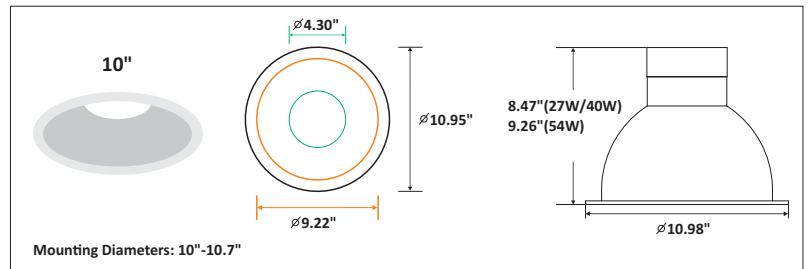
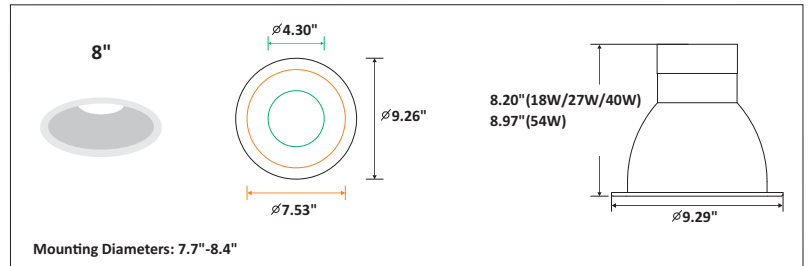
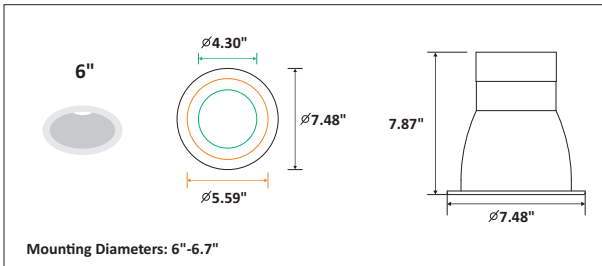
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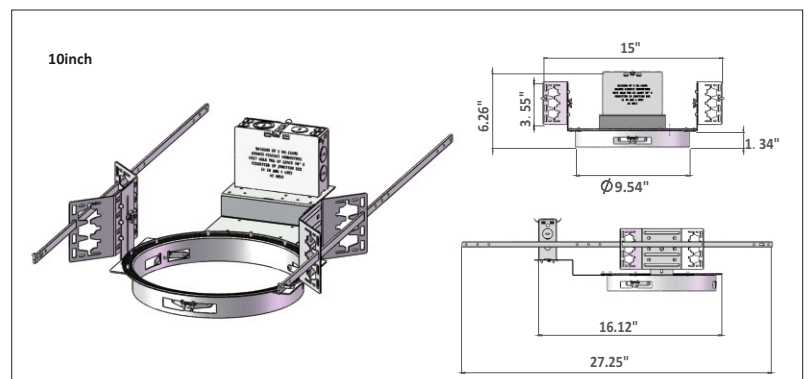
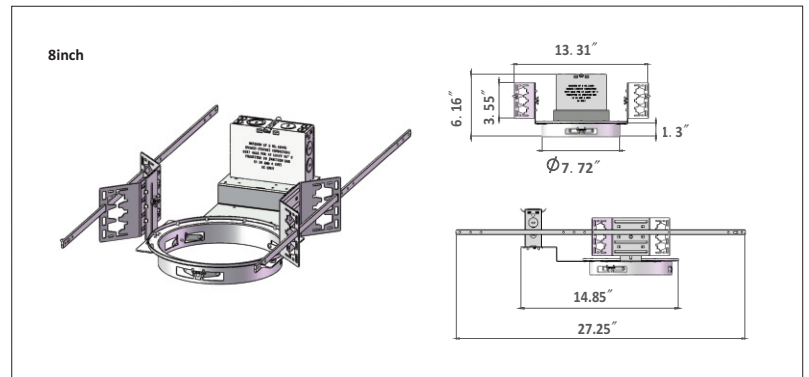
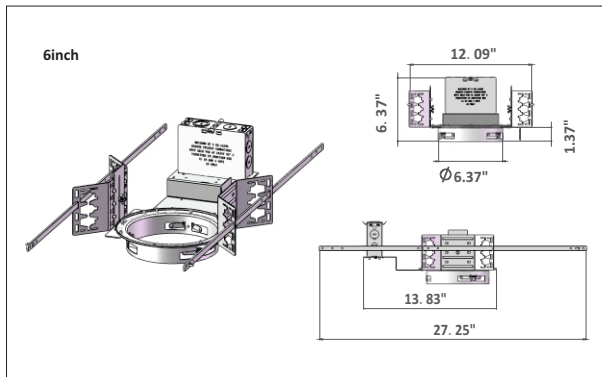
Information contained herein is subject to change without notice.
Values are nominal.
Revised 02/2022



PRODUCT DIMENSIONS



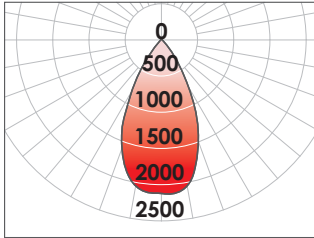
OPTIONAL NEW CONSTRUCTION FRAME





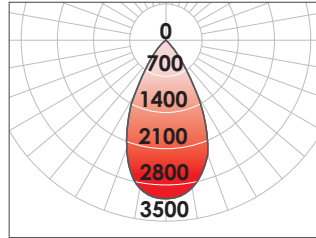
LUMINOUS INTENSITY DISTRIBUTION DIAGRAM

JADRK-6-18W



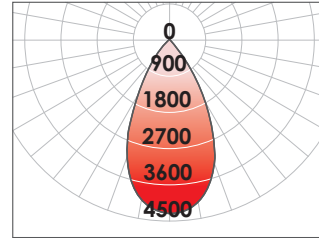
AVERAGE BEAM ANGLE(50%): 52.2°

JADRK-6-27W



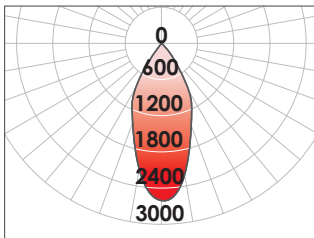
AVERAGE BEAM ANGLE(50%): 52.4°

JADRK-6-40W



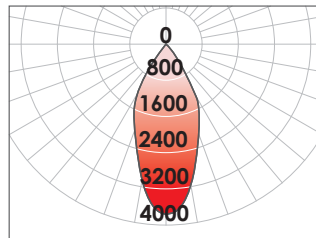
AVERAGE BEAM ANGLE(50%): 52.6°

JADRK-8-18W



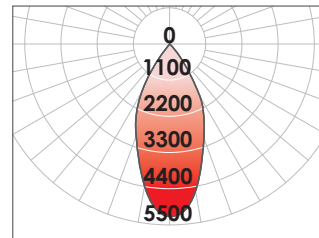
AVERAGE BEAM ANGLE(50%): 44.1°

JADRK-8-27W



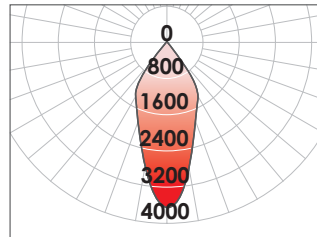
AVERAGE BEAM ANGLE(50%): 44.6°

JADRK-8-40W



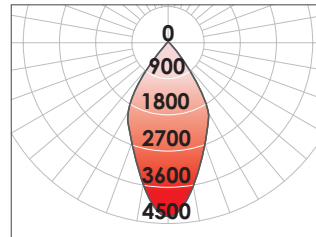
AVERAGE BEAM ANGLE(50%): 46.9°

JADRK-10-27W



AVERAGE BEAM ANGLE(50%): 36.4°

JADRK-10-40W



AVERAGE BEAM ANGLE(50%): 54.9°



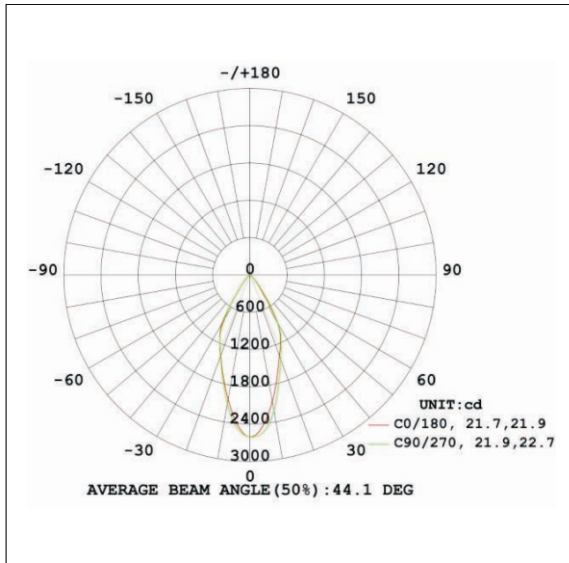


PHOTOMETRIC

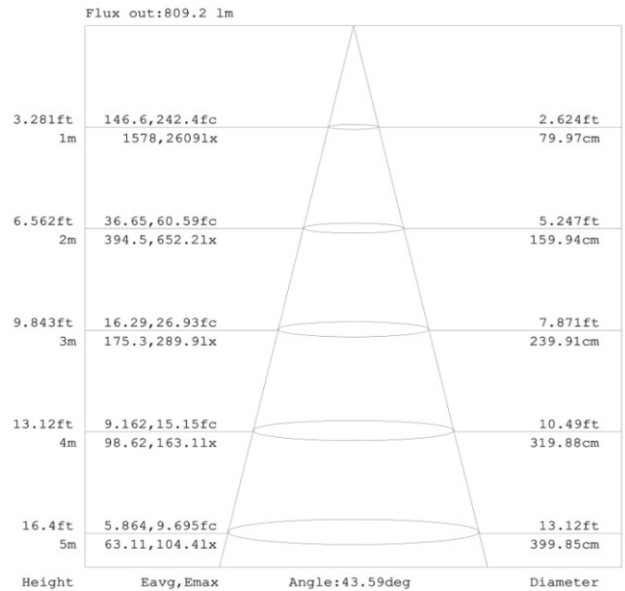
Fixture photometry has been conducted accredited testing laboratory in accordance with IESNA LM-79-08. IESNA LM-79-08 specifies the entire luminaire as the source resulting in a fixture efficiency of 100%. Result may vary per actual order.

8" 18W 1,584 lms

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM JADRK-8-18W-30K



AVERAGE ILLUMINANCE CURVE



Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

ZONAL FLUX DIAGRAM

T	C0	C45	C90	C135	C180	C225	C270	C315
10	2070	2133	2220	2134	2034	2036	2100	2125
20	1387	1414	1441	1413	1383	1372	1397	1399
30	877.5	895.9	890.6	886.3	891.3	846.0	821.9	831.0
40	193.5	209.9	238.0	226.1	219.1	209.8	215.7	206.7
50	39.22	43.94	52.91	49.93	48.69	46.36	46.76	39.83
60	13.01	14.78	17.95	15.89	15.62	15.75	16.34	13.34
70	5.343	6.119	7.261	6.352	6.104	6.266	6.507	5.457
80	1.969	2.286	2.690	2.434	2.309	2.310	2.313	1.985
90	0.0002	0.0009	0.0032	0.0074	0.0041	0	0	0

DEG LUMINOUS INTENSITY: cd

ZONAL LUMEN SUMMARY

T	φ zone	φ total	%lum, lamp
0-10	223.3	223.3	13.6, 13.6
10-20	479.6	702.9	42.7, 42.7
20-30	528.6	1232	74.8, 74.8
30-40	290.4	1522	92.5, 92.5
40-50	85.04	1607	97.6, 97.6
50-60	24.06	1631	99.1, 99.1
60-70	9.751	1641	99.7, 99.7
70-80	4.278	1645	99.9, 99.9
80-90	0.9728	1646	100, 100

UNIT: lm

COEFFICIENTS OF UTILIZATION

ppc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	
pw																
pfc																
RCR	RCR: Room Cavity Ratio (CU)															
	80%			70%			50%			30%			10%			
0.0	119	119	119	116	116	116	111	111	111	106	106	106	102	102	102	00
1.0	111	108	106	109	107	105	105	103	101	101	100	98	98	96	96	94
2.0	103	99	96	102	98	95	98	96	93	96	93	91	93	91	89	87
3.0	96	92	88	95	91	87	93	89	86	90	87	85	88	85	83	82
4.0	90	85	81	89	85	81	87	83	80	85	82	79	84	80	78	76
5.0	85	80	75	84	79	75	82	78	74	81	77	74	79	76	73	72
6.0	80	74	70	79	74	70	78	73	70	77	72	69	75	72	69	67
7.0	75	70	66	75	70	66	74	69	65	73	68	65	72	68	65	63
8.0	71	66	62	71	66	62	70	65	61	69	65	61	68	64	61	60
9.0	67	62	58	67	62	58	66	62	58	66	61	58	65	61	58	56
10.0	64	59	55	64	59	55	63	58	55	63	58	55	62	58	55	53



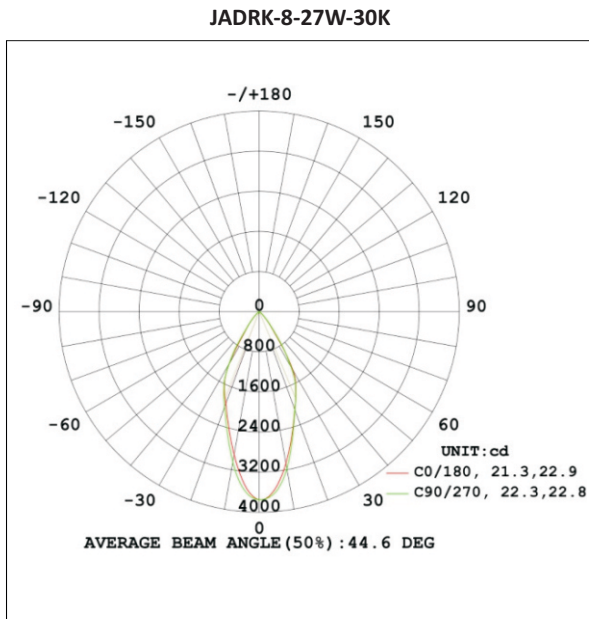


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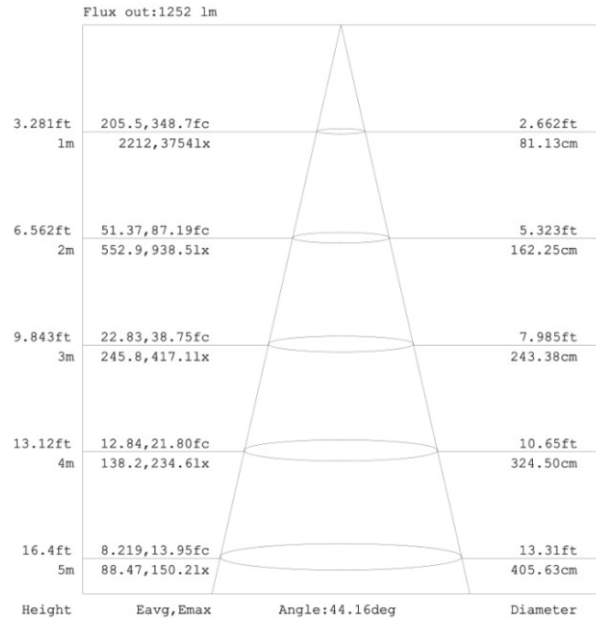
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8" 27W 2,376 lms

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



AVERAGE ILLUMINANCE CURVE



Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

ZONAL FLUX DIAGRAM

T	C0	C45	C90	C135	C180	C225	C270	C315
10	3075	3138	3180	3033	2896	2913	3044	3146
20	2080	2099	2088	2016	1958	1958	2027	2072
30	1348	1341	1274	1235	1205	1193	1218	1276
40	300.0	311.3	331.4	309.3	298.5	296.9	317.0	319.6
50	64.22	67.52	72.68	68.11	66.00	66.41	68.83	62.65
60	20.11	21.80	24.54	21.71	21.00	21.90	23.32	20.51
70	8.176	8.924	10.02	8.685	8.283	8.732	9.431	8.279
80	3.040	3.348	3.677	3.250	3.076	3.195	3.406	3.066
90	0.0020	0.0021	0.0021	0.0017	0	0	0	0

DEG LUMINOUS INTENSITY: cd

ZONAL LUMEN SUMMARY

T	φ zone	φ total	%lum, lamp
0-10	322.7	322.7	13.5, 13.5
10-20	696.5	1019	42.6, 42.6
20-30	768.7	1788	74.8, 74.8
30-40	423.0	2211	92.5, 92.5
40-50	123.0	2334	97.6, 97.6
50-60	34.63	2369	99.1, 99.1
60-70	13.98	2382	99.7, 99.7
70-80	6.112	2389	99.9, 99.9
80-90	1.376	2390	100, 100

UNIT: lm

COEFFICIENTS OF UTILIZATION

ppc	80%				70%				50%				30%				10%				0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0		
pfc	20%																0				
RCR	RCR: Room Cavity Ratio (CU)																0				
	119	119	119	116	116	116	111	111	111	111	106	106	106	102	102	102		100	00		
1.0	111	108	106	109	107	105	105	103	101	101	00	98	98	96	96	96	94	94			
2.0	103	99	96	102	98	95	98	96	93	96	93	91	93	91	89	89	87	87			
3.0	97	92	88	95	91	87	93	89	86	90	87	85	88	85	83	83	82	82			
4.0	91	85	81	89	85	81	87	83	80	85	82	79	84	80	78	76	76	76			
5.0	85	80	75	84	79	75	82	78	74	81	77	74	79	76	73	72	72	72			
6.0	80	74	70	79	74	70	78	73	70	77	72	69	75	72	69	67	67	67			
7.0	76	70	66	75	70	66	74	69	65	73	68	65	72	68	65	63	63	63			
8.0	72	66	62	71	66	62	70	65	61	69	65	61	68	64	61	60	60	60			
9.0	68	62	58	67	62	58	66	62	58	66	61	58	65	61	58	56	56	56			
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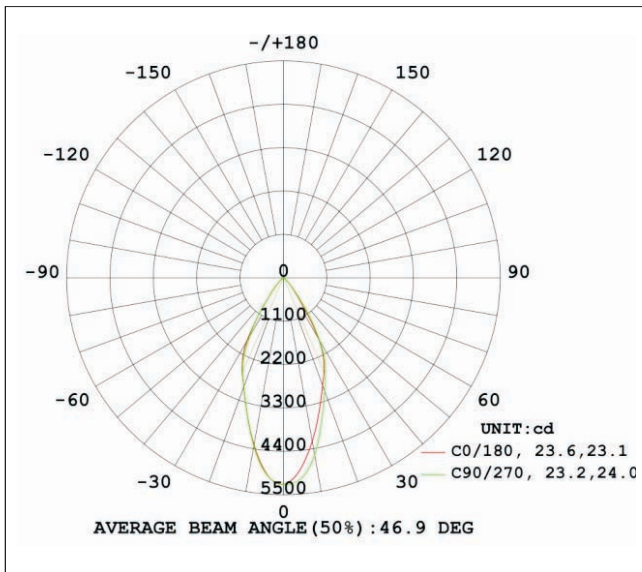
PHOTOMETRIC

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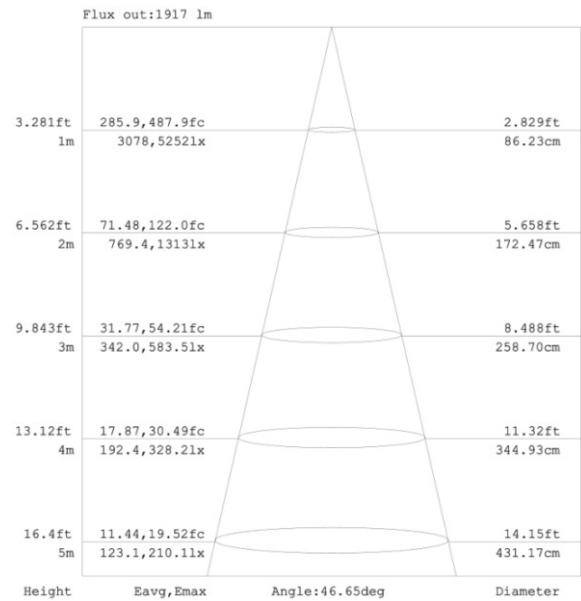
8" 40W 3,400 lms

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM

JADRK-8-40W-30K



AVERAGE ILLUMINANCE CURVE



Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

ZONAL FLUX DIAGRAM

T	C0	C45	C90	C135	C180	C225	C270	C315
10	4207	4415	4558	4486	4303	4317	4343	4361
20	2908	2989	3048	3017	2951	2915	2939	2924
30	1783	1845	1841	1886	1860	1768	1722	1715
40	404.4	449.3	484.6	473.0	456.1	447.0	450.8	437.9
50	86.32	93.34	102.6	97.79	98.80	98.58	100.2	88.29
60	28.65	31.97	35.80	31.96	31.76	33.20	33.99	29.04
70	11.68	13.27	14.63	12.86	12.69	13.51	13.68	11.78
80	4.325	4.949	5.424	4.908	4.774	4.959	4.903	4.340
90	0.0042	0.0048	0.0057	0.0085	0.0064	0.0028	0.0019	0.0025

UNIT: cd

ZONAL LUMEN SUMMARY

T	φ zone	φ total	% lum. lamp
0-10	456.9	456.9	13.2, 13.2
10-20	1007	1464	42.4, 42.4
20-30	1112	2576	74.6, 74.6
30-40	618.6	3195	92.5, 92.5
40-50	177.5	3372	97.6, 97.6
50-60	50.50	3423	99.1, 99.1
60-70	20.55	3443	99.7, 99.7
70-80	9.028	3452	99.9, 99.9
80-90	2.048	3454	100, 100

UNIT: lm

COEFFICIENTS OF UTILIZATION

ppc	80%		70%		50%			30%			10%			0
PW	50%	30% 10% 50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%		20%		20%			20%			20%			0
RCR	RCR: Room Cavity Ratio (CU)													
0.0	119	119	119	116	116	111	111	111	106	106	106	102	102	00
1.0	111	108	106	109	107	105	105	103	101	101	00	98	98	96
2.0	103	99	96	102	98	95	98	96	93	96	93	91	93	89
3.0	97	92	88	95	91	87	93	89	86	90	87	85	88	83
4.0	91	85	81	89	84	81	87	83	80	85	82	79	83	78
5.0	85	80	75	84	79	75	82	78	74	81	77	74	79	73
6.0	80	74	70	79	74	70	78	73	70	77	72	69	75	68
7.0	76	70	66	75	69	65	74	69	65	73	68	65	71	64
8.0	72	66	62	71	65	62	70	65	61	69	65	61	68	61
9.0	68	62	58	67	62	58	66	62	58	66	61	58	65	57
10.0	64	59	55	64	59	55	63	58	55	63	58	55	62	54



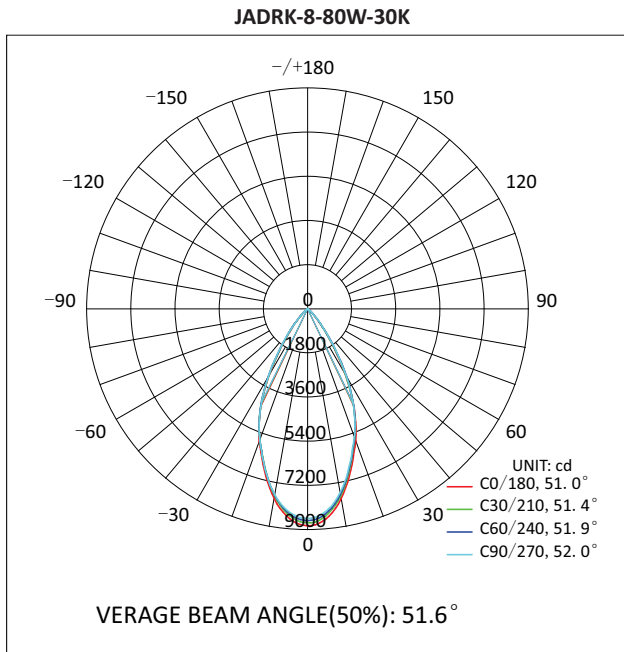


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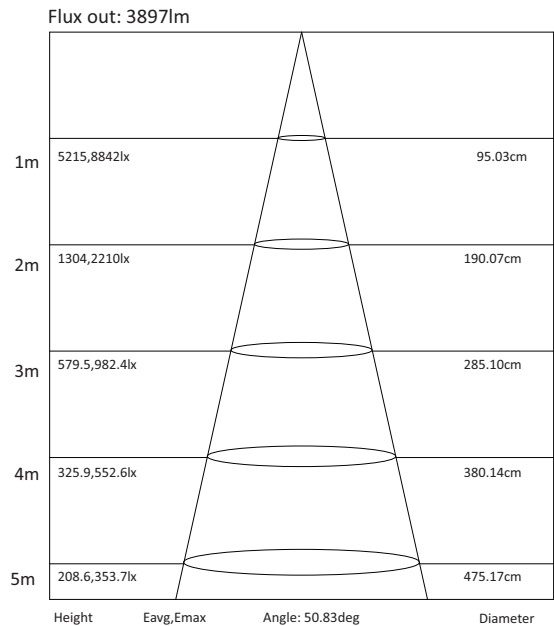
Fixture photometry has been conducted accredited testing laboratory in accordance with IESNA LM-79-08. IESNA LM-79-08 specifies the entire luminaire as the source resulting in a fixture efficiency of 100%. Result may vary per actual order.

8" 80W 6,800 lms

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



AVERAGE ILLUMINANCE CURVE



ZONAL FLUX DIAGRAM

T	C0	C45	C90	C135	C180	C225	C270	C315
10	7872	7743	7625	7552	7858	7706	7709	7577
20	5741	5648	5579	5538	5777	5662	5706	5565
30	3072	3196	3154	3133	3168	3217	3245	3126
40	863.6	934.3	935.4	979.2	923.3	931.5	976.9	922.3
50	154.7	156.7	165.2	184.7	180.9	153.9	152.0	154.7
60	31.91	32.07	35.00	42.64	40.87	31.96	31.38	33.02
70	11.69	11.21	11.99	13.96	13.43	11.35	11.46	12.17
80	4.327	4.261	4.534	4.810	4.632	4.185	4.544	4.519
90	0.1629	0.1966	0.1448	0.1684	0.1504	0.1854	0.1127	0.1762

DEG LUMINOUS INTENSITY:cd

ZONAL LUMEN SUMMARY

T	φ zone	φ total	lum. lamp
0-10	775.2	775.2	12.3,12.3
10-20	1854	2630	41.8,41.8
20-30	2027	4656	74,74
30-40	1166	5823	92.6,92.6
40-50	346.1	6169	98.1,98.1
50-60	71.72	6241	99.2,99.2
60-70	20.38	6261	99.2,99.2
70-80	8.342	6269	99.7,99.7
80-90	1.889	6271	99.7,99.7

UNIT: lm

COEFFICIENTS OF UTILIZATION

ppc	80%				70%				50%				30%				10%				0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%			
pfc	20%				20%				20%				20%				20%				
RCR	RCR:Room Cavity Ratio (CU)																				
0.0	119	119	119	116	116	116	111	111	111	106	106	106	102	102	102	00					
1.0	111	108	106	109	106	105	105	103	101	101	99	98	97	96	95	94					
2.0	103	99	96	102	98	95	98	95	93	95	93	91	93	91	89	87					
3.0	97	92	88	95	91	87	93	89	86	90	87	84	88	85	83	81					
4.0	90	85	81	89	84	80	87	83	80	85	82	79	83	80	78	76					
5.0	85	79	75	84	79	75	82	78	74	81	77	73	79	75	73	71					
6.0	80	74	70	79	74	70	78	73	69	76	72	69	75	71	68	67					
7.0	75	70	65	75	69	65	73	68	61	72	68	65	71	67	64	63					
8.0	71	65	61	71	65	61	70	65	61	68	64	61	68	63	60	59					
9.0	67	62	58	67	61	58	66	61	57	65	61	57	64	60	57	56					
10.0	64	58	55	64	58	54	63	58	54	62	57	54	61	57	54	53					

