

Project Name:	Fixture Type:
Complete Catalog #:	Date:
Comments:	

ORBITAL SPLIT RECESSED J-BOX DOWN LIGHT



The **Orbital Split Recessed J-Box Down Light** is the ideal solution for new construction or retrofit, commercial or residential applications. The innovative split J-Box light engine & interchangeable trim kits have been engineered to provide flexibility & ease of installation. The CCT- & output-adjustable light engines come with adjustable butterfly clips, allows the fixture to be installed in any sheetrock or hard ceiling, without the need for a rough-in can. These fixtures have an advanced design, with several different trim kits to choose from, and are ideal for shopping malls, hospitals, airports, hotels, and office buildings. Both IC & non-IC versions are available.

FEATURES

- Integrated J-Box for direct wire eliminates recessed can
- CCT-selectable
- Output-selectable
- Damp location listed
- System Efficiency - up to 90 lm/W
- Luminous Flux - up to 3200 lumens
- Input Voltage - 120-277 VAC or 120-347 VAC
- Rebate Eligible - Yes, ENERGY STAR listed, Contact for details
- Warranty - 10 Years or 50,000 Hours Non-Prorated

APPLICATIONS

- Shopping malls
- Hospitals
- Airports
- Hotels
- Office buildings
- Residential



ORBITAL SPLIT RECESSED J-BOX DOWN LIGHT

ORDERING INFORMATION

PART NUMBER	WATTAGE	TYPE	LUMENS	VOLTAGE	CCT	MIN ORDER QTY	US STOCK
ECO-TKO-20W-4DL-IC	10W / 15W / 20W	IC	800 / 1170 / 1500	120-277VAC or 120-347VAC	3000K, 3500K, 4000K	1	YES
ECO-TKO-40W-4DL-NIC	27W / 34W / 40W	Non-IC	2430 / 2890 / 3200	120-277VAC or 120-347VAC	3000K, 3500K, 4000K	1	YES
ECO-TKO-20W-6DL-IC	10W / 15W / 20W	IC	800 / 1170 / 1500	120-277VAC or 120-347VAC	3000K, 3500K, 4000K	1	YES
ECO-TKO-40W-6DL-NIC	27W / 34W / 40W	Non-IC	2430 / 2890 / 3200	120-277VAC or 120-347VAC	3000K, 3500K, 4000K	1	YES
ECO-TKO-20W-8DL-IC	10W / 15W / 20W	IC	800 / 1170 / 1500	120-277VAC or 120-347VAC	3000K, 3500K, 4000K	1	YES
ECO-TKO-40W-8DL-NIC	27W / 34W / 40W	Non-IC	2430 / 2890 / 3200	120-277VAC or 120-347VAC	3000K, 3500K, 4000K	1	YES
ECO-TKO-20W-10DL-IC	10W / 15W / 20W	IC	800 / 1170 / 1500	120-277VAC or 120-347VAC	3000K, 3500K, 4000K	1	YES
ECO-TKO-40W-10DL-NIC	27W / 34W / 40W	Non-IC	2430 / 2890 / 3200	120-277VAC or 120-347VAC	3000K, 3500K, 4000K	1	YES

TECHNICAL SPECIFICATIONS

LED Type	Lumileds
System Efficacy	Up to 90 lpW
Color Temperature	3000K, 3500K, 4000K
CRI	80+
Input Voltage	120-277VAC or 120-347VAC
Controls	1-10V dimming
Power Frequency	50-60 Hz
Power Efficiency	>90%
Power Factor	>0.9
THD	<20%
Certifications	cULus, ENERGY STAR, damp location listed
Fixture Material	Alluminum Alloy
IP Rating	IP66, damp listed
Lifetime (L70)	50,000 hours
Warranty	10 Years or 50,000 Hours Non-Prorated
Operating Temperature	-4 to 113 F
Housing Color	Silver
Minimum Order Quantity	1

*Data is based upon tests performed in a controlled environment and representative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

*IES files provided on request.

ORBITAL SPLIT RECESSED J-BOX DOWN LIGHT

TRIM OPTIONS

Split Design Of Engine And Trim

One engine allows for seamless integration of multiple trim options.

Round



4" 6" 8"
10"

>>>>>>>>

Round
Wall
wash



4" 6"

>>>>>>>>

Square



4" 6"

>>>>>>>>

Square
Wall
wash



4" 6"

>>>>>>>>

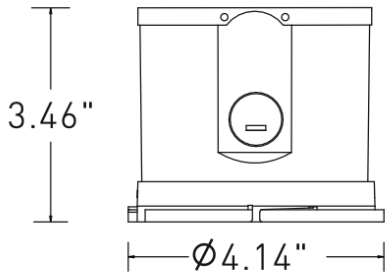
CONTROLS

Control Options: 1-10V dimmable down to 10%

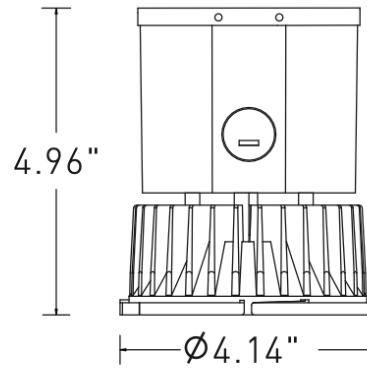
Tested compatible dimmers: Lutron Diva-Dvtv, Leviton IP-710-DL

DIMENSIONS

ENGINE



10W IC, 15W IC, 20W IC



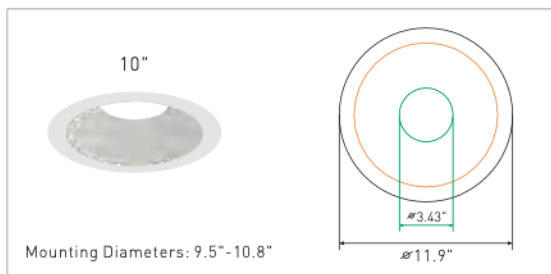
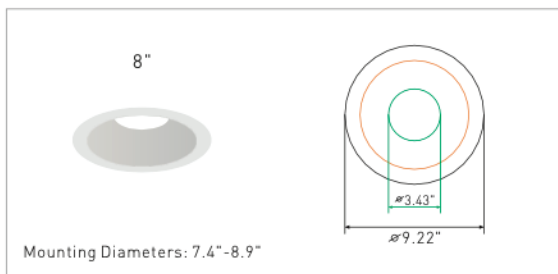
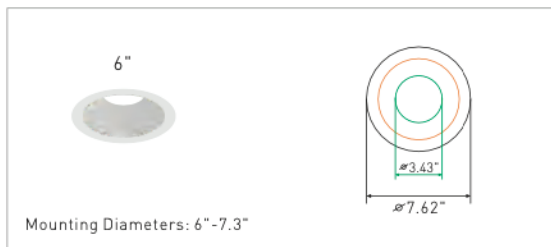
40W NON-IC

ORBITAL SPLIT RECESSED J-BOX DOWN LIGHT

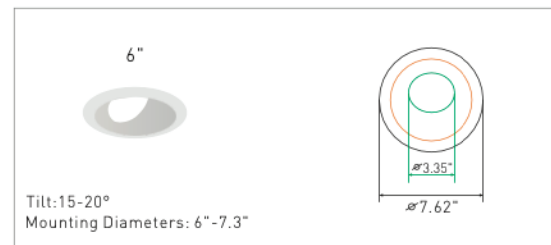
DIMENSIONS

TRIM

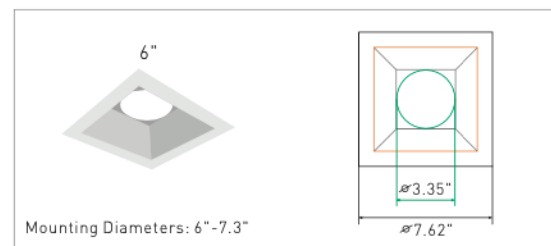
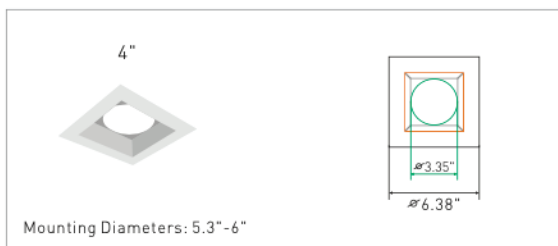
Round Trims



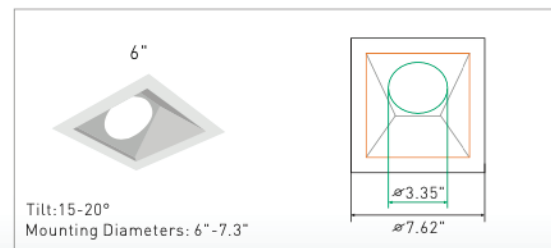
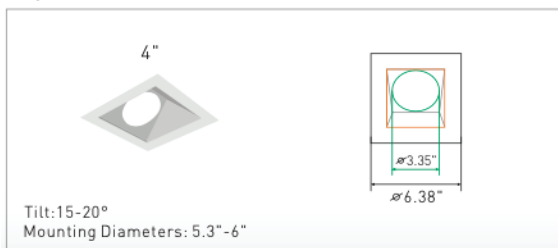
Round Wall Wash Trims



Square Trims



Square Wall Wash Trims



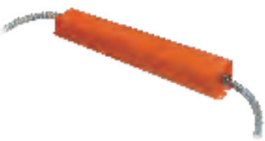
ORBITAL SPLIT RECESSED J-BOX DOWN LIGHT

NO TRADITIONAL HOUSING REQUIRED



ACCESSORIES

EMERGENCY OPTION

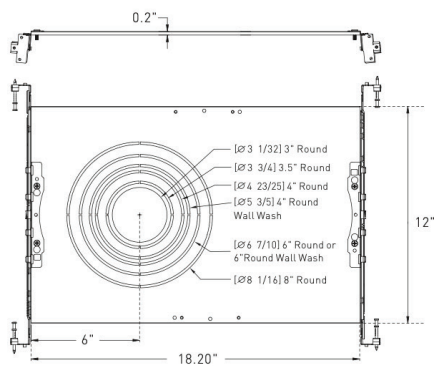
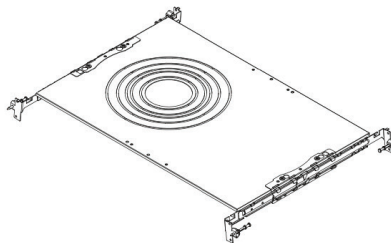


Optional high voltage 8W emergency LED driver EM-H08170-LBF can be provided. When AC power fails, it immediately switches to the emergency mode, operating for lighting up to 120 minutes. When AC power is restored, it automatically returns to the charging mode which meets critical life-safety lighting requirements.

EMERGENCY LUMEN OUTPUT

Fixture Efficacy	Output Power 8W
100lm/w	800 Lumens

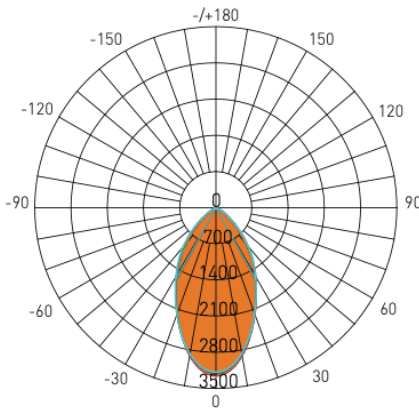
OPTIONAL NEW CONSTRUCTION FRAME KITS



ORBITAL SPLIT RECESSED J-BOX DOWN LIGHT

PHOTOMETRICS

6" 40W Round Trim



AVERAGE BEAM ANGLE(50%): 57.4°

Test Number: CP6-D40W-40T
 Lumens: 3328.0 Lm
 Watts: 40 W
 LPW: 83.2 Lm/W
 CCT: 4000K

UNIT: cd
 C0/180,56.4°
 C30/210,56.9°
 C60/240,57.9°
 C90/270,58.4°

Zonal Flux Diagram

T	C0	C45	C90	C135	C180
10	2916	2896	2871	2857	2912
20	2201	2209	2188	2161	2186
30	1521	1544	1542	1506	1498
40	891.0	956.2	972.7	929.2	869.3
50	335.4	424.5	441.2	395.6	321.0
60	58.83	91.82	97.54	78.63	54.01
70	3.285	2.050	1.504	1.915	3.235
80	1.606	0.8562	0.5011	0.8066	1.591
90	0.1094	0.0676	0.0949	0.0811	0.0721
100	0.0902	0.0812	0.0857	0.0992	0.0993
110	0.1532	0.2302	0.2280	0.2212	0.1986
120	0.5046	0.6317	0.6711	0.6273	0.5778
130	1.262	1.372	1.496	1.403	1.359
140	2.366	2.405	2.542	2.450	2.455
150	3.683	3.717	3.809	3.735	3.735
160	5.157	5.110	5.117	5.088	5.184
170	6.245	6.183	6.145	6.160	6.273
180	6.732	6.710	6.593	6.620	6.755
DEG	LUMINOUS INTENSITY:cd				

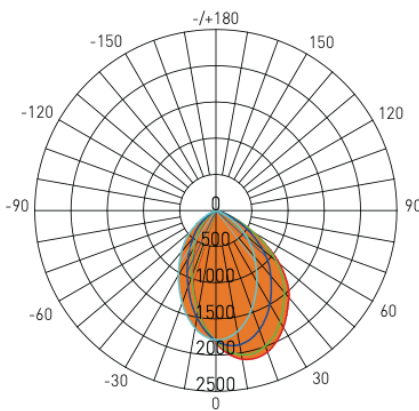
Zonal Lumens

T	φ total
0-10	289.3
10-20	997.9
20-30	1840
30-40	2601
40-50	3101
50-60	3290
60-70	3317
70-80	3318
80-90	3319
90-100	3319
100-110	3319
110-120	3320
120-130	3320
130-140	3322
140-150	3324
150-160	3326
160-170	3327
170-180	3328
UNIT: lm	

Luminance cd/(m2)

G(DEG)	C0/180	C90/270
85	742	162
80	524	163
75	497	189
70	544	249
65	1661	3557
60	6661	11045
55	15820	22953
50	29545	38863
45	47042	55891

6" 40W Round Wall Wash



AVERAGE BEAM ANGLE(50%): 71.0°

Test Number: CP6-D40W-30W-C
 Lumens: 2949.1 Lm
 Watts: 40 W
 LPW: 73.73 Lm/W
 CCT: 3000K

UNIT: cd
 C0/180,69.2°
 C30/210,70.4°
 C60/240,72.4°
 C90/270,72.2°

Zonal Flux Diagram

T	C0	C45	C90	C135	C180
10	2085	1962	1700	1461	1397
20	2080	1892	1449	1069	944.4
30	1866	1658	1132	716.4	584.0
40	1572	1343	828.3	446.7	318.6
50	1152	1001	540.1	222.7	107.6
60	593.4	562.8	253.7	36.59	12.99
70	169.5	186.5	59.76	4.875	5.799
80	4.680	16.81	1.576	1.973	2.586
90	0.0996	0.0631	0.0831	0.1709	0.1311
100	0.0811	0.0677	0.1123	0.2708	0.3476
110	0.0812	0.1309	0.3018	0.6949	0.9297
120	0.2162	0.3294	0.7163	1.394	1.832
130	0.4958	0.6814	1.271	2.125	2.851
140	0.9914	1.173	1.857	2.832	3.771
150	1.650	1.822	2.520	3.504	4.325
160	2.502	2.603	3.201	3.991	4.613
170	3.422	3.432	3.765	4.225	4.744
180	4.216	4.104	4.000	4.054	4.230
DEG	LUMINOUS INTENSITY:cd				

Zonal Lumens

T	φ total
0-10	166.4
10-20	610.3
20-30	1207
30-40	1830
40-50	2383
50-60	2750
60-70	2907
70-80	2940
80-90	2941
90-100	2941
100-110	2942
110-120	2942
120-130	2943
130-140	2945
140-150	2946
150-160	2948
160-170	2949
170-180	2949
UNIT: lm	

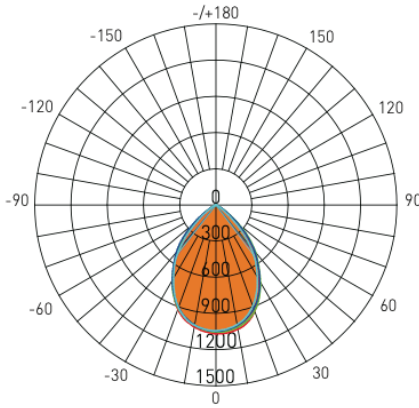
Luminance cd/(m2)

G(DEG)	C0/180	C90/270
85	182	531
80	1526	514
75	14095	3272
70	28056	9893
65	45639	18782
60	67192	28730
55	86754	38552
50	101454	47569
45	111057	55165

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PHOTOMETRICS

6" 20W Square Trim



AVERAGE BEAM ANGLE(50%): 76.6°

Test Number: CP6-D20W-40E-S UNIT: cd
 Lumens: 1515.4 Lm C0/180,75.1°
 Watts: 20 W C30/210,77.8°
 LPW: 75.77 Lm/W C60/240,78.3°
 CCT: 4000K C90/270,75.1°

Zonal Flux Diagram

T	C0	C45	C90	C135	C180
10	1047	1022	1007	992.7	1027
20	939.2	932.1	893.4	892.4	922.1
30	719.9	739.1	687.3	709.4	711.5
40	471.7	497.7	440.1	477.0	457.8
50	170.8	280.1	158.0	250.7	159.6
60	32.27	62.15	30.20	46.44	33.23
70	2.699	4.711	3.380	4.018	3.231
80	1.543	2.277	2.065	2.620	1.965
90	0.1002	0.0711	0.1300	0.0681	0.1300
100	0.0406	0.0496	0.0406	0.0406	0.0451
110	0.0587	0.1195	0.1128	0.1015	0.1038
120	0.2476	0.3584	0.3114	0.3492	0.3024
130	0.6308	0.7486	0.6814	0.7350	0.7086
140	1.149	1.193	1.150	1.217	1.205
150	1.614	1.648	1.633	1.653	1.682
160	2.155	2.061	2.043	2.088	2.156
170	2.363	2.331	2.304	2.322	2.422
180	2.498	2.444	2.431	2.415	2.503
DEG	LUMINOUS INTENSITY:cd				

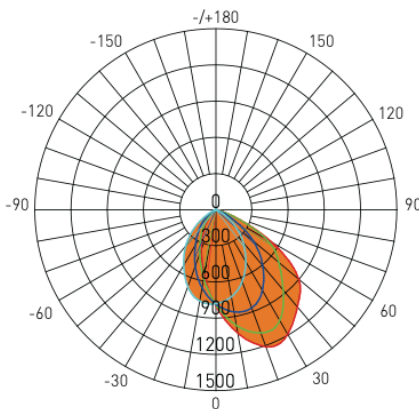
Zonal Lumens

T	φ total
0-10	98.17
10-20	371.6
20-30	748.1
30-40	1122
40-50	1389
50-60	1490
60-70	1507
70-80	1510
80-90	1511
90-100	1511
100-110	1511
110-120	1512
120-130	1512
130-140	1513
140-150	1514
150-160	1515
160-170	1515
170-180	1515
DEG	UNIT: lm

Luminance cd/(m2)

G(DEG)	C0/180	C90/270
85	662	908
80	395	528
75	341	445
70	351	439
65	965	913
60	2869	2684
55	6050	5712
50	11807	10926
45	19770	18214

6" 20W Square Wall Wash



AVERAGE BEAM ANGLE(50%): 71.0°

Test Number: CP6-D20W-40W-S UNIT: cd
 Lumens: 1590.6 Lm C0/180,65.4°
 Watts: 20 W C30/210,68.8°
 LPW: 79.53 Lm/W C60/240,72.5°
 CCT: 4000K C90/270,77.0°

Zonal Flux Diagram

T	C0	C45	C90	C135	C180
10	1038	919.6	732.9	585.3	554.5
20	1209	984.8	638.0	411.7	353.7
30	1192	930.7	494.7	267.4	210.7
40	1053	743.2	354.7	155.9	97.27
50	896.8	548.9	205.7	66.71	21.28
60	526.2	310.4	73.90	12.46	5.292
70	136.0	73.16	14.65	4.282	4.094
80	12.17	4.784	1.600	3.400	3.395
90	0.1674	0.0925	0.0768	0.1779	0.0947
100	0.0812	0.0812	0.1175	0.2143	0.3070
110	0.0631	0.0925	0.1760	0.5996	0.7989
120	1.081	0.1646	0.3880	1.220	1.633
130	0.1577	0.2909	0.6721	1.526	2.147
140	0.3513	0.4938	0.9789	1.914	2.359
150	0.6173	0.7667	1.276	2.081	2.534
160	0.9781	1.127	1.565	2.182	2.530
170	1.433	1.522	1.781	2.153	2.340
180	1.935	1.851	1.826	1.847	1.944
DEG	LUMINOUS INTENSITY:cd				

Zonal Lumens

T	φ total
0-10	73.89
10-20	284.3
20-30	592.3
30-40	929.2
40-50	1235
50-60	1461
60-70	1563
70-80	1584
80-90	1586
90-100	1586
100-110	1586
110-120	1587
120-130	1588
130-140	1588
140-150	1589
150-160	1590
160-170	1590
170-180	1591
DEG	UNIT: lm

Luminance cd/(m2)

G(DEG)	C0/180	C90/270
85	373	694
80	3114	410
75	9473	779
70	17677	1904
65	31770	3741
60	46776	6569
55	57281	10368
50	62005	14225
45	61916	17780