Portfolio

DESCRIPTION

A very low brightness non-ferrous 6-inch diameter downlight for use with PAR30, PAR16 and A21 lamps. The precisely formed non-imaging reflector ensures superior cutoff to lamp and lamp image. The modular housing system supports various downlight and wallwash reflectors.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Reflector
Positive reflector mounting pulls trim tight to ceiling. 0.050" spun aluminum reflector. Available in a variety of Alzak® finishes. Painted white finish as well as white or black baffles.

Trim Ring
Self flanged or molded white trim ring. Rimless trim ring accessory available (See Accessories).

Socket Cap
One piece heat dissipating die-cast aluminum with non-ferrous reflector attachment.

Housing
Precision die-cast aluminum 1-1/2" (38mm) deep collar. Optical assembly adjusts within the housing to accommodate ceilings up to 3-1/2" (89mm) thick.

Universal Mounting Bracket
Accepts various Non-Ferrous hanger bars by others. Provides 5" total adjustment.

Conduit Fittings
Die-cast screw tight connectors with aluminum lock nut and stainless steel screw.

Junction Box
Made entirely of non-ferrous material. U.L. listed for four in, four out #12 at 90°C pull through branch wiring. Pry-outs for four 1/2" and two 3/4" conduits. Access to junction box by removing reflector.

Socket
Medium base porcelain socket with nickel plated screw shell and non-ferrous fasteners.

Socket Cap Support
Non-ferrous brackets with stainless steel hardware to allow socket cap adjustment.

Insulation Detector
Self-resetting insulation detector opens circuit if insulation is improperly installed.perly installed.

Options & Accessories
TRR=Rimless Trim Rings for minimal flange appearance in plaster ceilings.

Labels
cULus Listed, damp location.

HD6MRI

6301
PAR30 (75W)

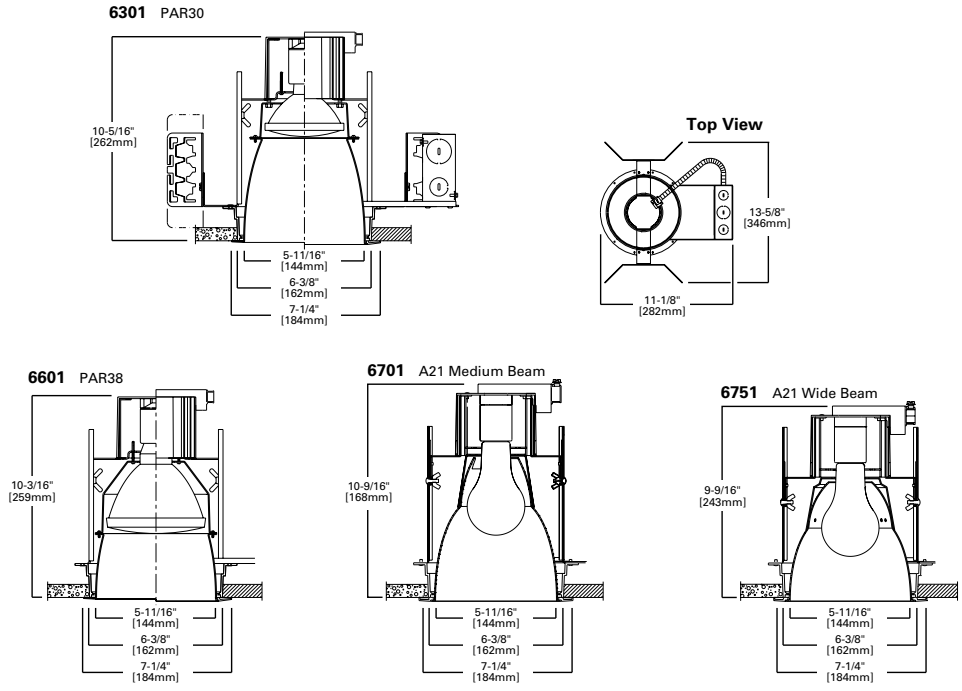
6701
Medium Beam A21 (200W)

6751
Wide Beam A21 (200W)

6601
PAR38 (150W)

6-Inch Downlight

DIMENSIONS



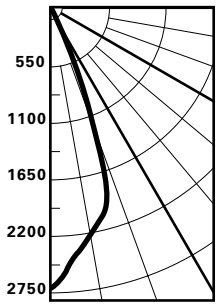
NOTES:
Accessories should be ordered separately. For additional options, please consult your Cooper Lighting Solutions Representative.
Alzak is a registered trademark of Aluminum Company of America.

ORDERING INFORMATION

Housing	Options	Reflector	Finish	Option	MRI (required field)
HD6MRI=6" Non-Ferrous Incandescent	**CP**=Chicago Plenum	**6301**=PAR30 Self Flanged **6601**=PAR38 Self Flanged **6701**=A21 Medium Beam Self Flanged **6751**=A21 Wide Beam Self Flanged	**BMRI**=Specular Black **HMRI**=Semi-Specular Clear **LIMRI**=Specular Clear	**WF**=White Painted Flanged	**MRI**=MRI

PHOTOMETRICS

Candlepower Distribution



Test No. H22245
HD6-6300C
Lamp=75W PAR30 Halogen Flood
Lumens=1100
Spacing Criteria=0.6
Efficiency=89.2%

Candlepower

Deg.	CD
0	2732
5	2454
15	2035
25	341
35	43
45	10
55	0
65	0
75	0
85	0
90	0

Average Luminance

Deg.	CD/SQ M
45	862
55	0
65	0
75	0
85	0

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
5'6"	90	3'6"
6'6"	65	4'0"
8'0"	43	5'0"
10'0"	27	6'6"
12'0"	19	8'0"
14'0"	14	9'0"

Beam diameter is to 50% of maximum footcandles, rounded to the nearest half-foot.

Footcandle values are initial, apply appropriate light loss factors where necessary.

Zonal Lumen Summary

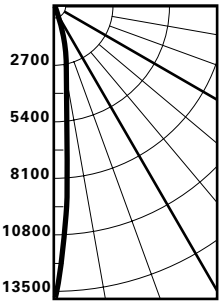
Zone	Lumens	%Lamp	%Luminaire
0-30	948	86.2	96.6
0-40	976	88.8	99.5
0-60	982	89.2	100.0
0-90	982	89.2	100.0
90-180	0	0.0	0.0
0-180	982	89.2	100.0

Coefficient of Utilization

rc	80%				70%			50%		30%		10%		0%
rw	70	50	30	10	50	30	10	50	10	50	10	50	10	0
RCR														
0	106	106	106	106	104	104	104	99	99	95	95	91	91	89
1	103	102	100	99	100	98	97	96	94	93	91	90	89	87
2	101	98	95	93	96	94	92	94	91	91	89	89	87	86
3	98	95	92	90	94	91	89	92	88	90	87	88	85	84
4	96	92	89	87	91	88	86	89	85	88	84	86	84	83
5	94	89	86	84	88	86	84	87	83	86	82	85	82	81
6	92	87	84	82	87	84	82	85	81	84	81	83	80	79
7	90	85	82	80	84	81	79	83	79	83	79	82	78	78
8	88	83	80	78	82	79	77	82	77	81	77	80	77	76
9	86	81	78	76	80	78	76	80	75	79	75	79	75	74
10	84	79	76	74	79	76	74	78	74	78	74	77	73	73

rc= Ceiling reflectance, rw= Wall reflectance, RCR= Room cavity ratio
CU Data Based on 20% Effective Floor Cavity Reflectance.

Candlepower Distribution



Test No. H22246
HD6-6300C
Lamp=75W PAR30 Halogen Narrow Spot
Lumens=1100
Spacing Criteria=0.2
Efficiency=96.5%

Candlepower

Deg.	CD
0	13561
5	6260
15	1534
25	128
35	13
45	4
55	0
65	0
75	0
85	0
90	0

Average Luminance

Deg.	CD/SQ M
45	604
55	0
65	0
75	0
85	0

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
5'6"	448	1'0"
6'6"	321	1'6"
8'0"	212	1'6"
10'0"	136	2'0"
12'0"	94	2'6"
14'0"	69	3'0"

Beam diameter is to 50% of maximum footcandles, rounded to the nearest half-foot.

Footcandle values are initial, apply appropriate light loss factors where necessary.

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Luminaire
0-30	1051	95.5	99.0
0-40	1058	96.2	99.7
0-60	1062	96.5	100.0
0-90	1062	96.5	100.0
90-180	0	0.0	0.0
0-180	1062	96.5	100.0

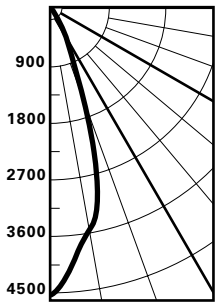
Coefficient of Utilization

rc	80%				70%			50%		30%		10%		0%
rw	70	50	30	10	50	30	10	50	10	50	10	50	10	0
RCR														
0	115	115	115	115	112	112	112	107	107	103	103	99	99	97
1	112	110	109	108	108	107	106	105	103	101	100	98	97	95
2	110	107	105	103	105	103	102	102	100	100	98	97	96	94
3	108	104	102	100	103	101	99	101	97	99	96	97	95	94
4	106	102	99	97	101	98	96	99	95	97	94	96	93	92
5	104	100	97	95	99	96	94	97	94	96	93	95	92	91
6	102	96	94	92	97	95	93	96	92	95	92	94	91	91
7	101	96	94	92	96	93	91	95	91	94	91	93	90	89
8	99	95	92	90	94	92	90	94	90	93	89	92	89	88
9	98	93	91	89	93	91	89	92	89	92	88	91	88	88
10	96	92	90	88	92	89	88	91	88	91	87	90	87	87

rc= Ceiling reflectance, rw= Wall reflectance, RCR= Room cavity ratio
CU Data Based on 20% Effective Floor Cavity Reflectance.

PHOTOMETRICS

Candlepower Distribution



Test No. H22260
HD6-6600C
Lamp=120W
PAR38
Flood
Lumens=1900
Spacing Criteria=0.5
Efficiency=85.4%

Candlepower

Deg.	CD
0	4507
5	4015
15	2770
25	657
35	231
45	36
55	14
65	0
75	0
85	0
90	0

Average Luminance

Deg.	CD/SQ M
45	3104
55	1488
65	0
75	0
85	0

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
5'6"	149	3'0"
6'6"	107	3'6"
8'0"	70	4'6"
10'0"	45	5'6"
12'0"	31	7'0"
14'0"	23	8'0"

Beam diameter is to 50% of maximum footcandles, rounded to the nearest half-foot.

Footcandle values are initial, apply appropriate light loss factors where necessary.

Zonal Lumen Summary

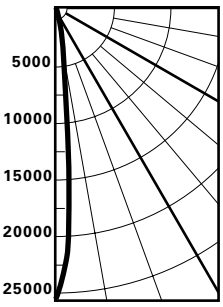
Zone	Lumens	%Lamp	%Luminaire
0-30	1428	75.2	88.0
0-40	1577	83.0	97.2
0-60	1622	85.4	100.0
0-90	1622	85.4	100.0
90-180	0	0.0	0.0
0-180	1622	85.4	100.0

Coefficient of Utilization

rc	80%				70%			50%		30%		10%		0%
rw	70	50	30	10	50	30	10	50	10	50	10	50	10	0
RCR														
0	102	102	102	102	99	99	99	95	95	91	91	87	87	85
1	98	97	95	94	95	93	92	91	89	88	87	85	84	83
2	95	92	90	88	91	89	87	88	85	86	83	84	82	81
3	93	89	86	84	88	85	83	86	82	84	81	82	80	79
4	90	86	83	80	85	82	80	83	79	82	78	80	77	76
5	87	83	79	77	82	79	77	81	76	79	75	78	75	74
6	85	80	77	75	80	77	74	79	74	78	73	77	73	72
7	83	78	74	72	77	74	72	76	71	75	71	74	71	70
8	80	75	72	69	75	71	69	74	69	73	69	72	69	68
9	78	73	69	67	72	69	67	72	67	71	67	71	67	66
10	76	71	67	65	70	67	65	70	65	69	65	69	65	64

rc= Ceiling reflectance, rw= Wall reflectance, RCR= Room cavity ratio
CU Data Based on 20% Effective Floor Cavity Reflectance.

Candlepower Distribution



Test No. H22261
HD6-6600C
Lamp=120W
PAR38
Narrow Spot
Lumens=1900
Spacing Criteria=0.2
Efficiency=91.1%

Candlepower

Deg.	CD
0	25139
5	11371
15	1110
25	819
35	145
45	14
55	6
65	0
75	0
85	0
90	0

Average Luminance

Deg.	CD/SQ M
45	1207
55	850
65	0
75	0
85	0

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
6'6"	595	1'6"
8'0"	393	1'6"
10'0"	251	2'0"
12'0"	175	2'6"
14'0"	128	3'0"
16'0"	98	3'0"

Beam diameter is to 50% of maximum footcandles, rounded to the nearest half-foot.

Footcandle values are initial, apply appropriate light loss factors where necessary.

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Luminaire
0-30	1608	84.6	92.9
0-40	1710	90.0	98.8
0-60	1730	91.1	100.0
0-90	1730	91.1	100.0
90-180	0	0.0	0.0
0-180	1730	91.1	100.0

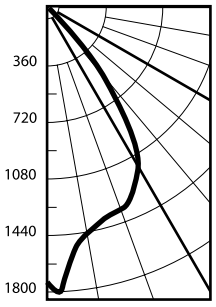
Coefficient of Utilization

rc	80%				70%			50%		30%		10%		0%
rw	70	50	30	10	50	30	10	50	10	50	10	50	10	0
RCR														
0	108	108	108	108	106	106	106	101	101	97	97	93	93	91
1	105	104	102	101	102	100	99	98	96	95	93	92	91	89
2	103	100	98	96	99	96	95	96	93	93	91	91	89	88
3	100	97	94	92	96	93	91	94	90	92	89	90	87	86
4	98	94	91	89	93	91	89	92	88	90	87	88	86	85
5	96	92	89	86	91	88	86	90	85	88	85	87	84	83
6	94	90	87	84	89	86	84	88	84	87	83	86	83	82
7	92	87	84	82	87	84	82	86	82	85	81	84	81	80
8	90	86	83	81	85	82	80	84	80	84	80	83	80	79
9	89	84	81	79	83	81	79	83	78	82	78	82	78	77
10	87	82	79	77	82	79	77	81	77	81	77	80	77	76

rc= Ceiling reflectance, rw= Wall reflectance, RCR= Room cavity ratio
CU Data Based on 20% Effective Floor Cavity Reflectance.

PHOTOMETRICS

Candlepower Distribution



Test No. H22250
HD6-6700C
Lamp=150W A19
Inside
Frosted
Lumens=2850
Spacing Criteria=1.0
Efficiency=63.7%

Candlepower

Deg.	CD
0	1806
5	1688
15	1436
25	1313
35	814
45	157
55	5
65	0
75	0
85	0
90	0

Average Luminance

Deg.	CD/SQ M
45	13539
55	532
65	0
75	0
85	0

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
5'6"	60	5'6"
6'6"	43	6'6"
8'0"	28	8'0"
10'0"	18	10'0"
12'0"	13	12'0"
14'0"	9	14'0"

Beam diameter is to 50% of maximum footcandles, rounded to the nearest half-foot.

Footcandle values are initial, apply appropriate light loss factors where necessary.

Reflector Multiplier

Low Iridescent = 0.95
Haze = 0.90
Straw = 0.85
Wheat = 0.85

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Luminaire
0-30	1167	40.9	64.3
0-40	1677	58.9	92.4
0-60	1815	63.7	100.0
0-90	1815	63.7	100.0
90-180	0	0.0	0.0
0-180	1815	63.7	100.0

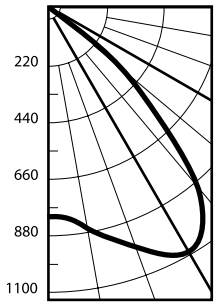
Coefficient of Utilization

rc	80%				70%			50%		30%		10%		0%
rw	70	50	30	10	50	30	10	50	10	50	10	50	10	0
RCR														
0	76	76	76	76	74	74	74	71	71	68	68	65	65	64
1	73	71	70	68	70	68	67	67	65	65	63	63	61	60
2	70	67	65	63	66	64	62	64	61	62	59	60	58	57
3	67	63	60	58	62	60	58	61	57	59	56	58	55	54
4	64	60	56	54	59	56	54	58	53	56	53	55	52	51
5	61	56	53	50	55	52	50	54	50	53	49	52	49	48
6	58	53	50	47	53	49	47	52	47	51	46	50	46	45
7	55	50	46	44	49	46	44	49	43	48	43	47	43	42
8	52	47	43	41	46	43	41	46	41	45	40	45	40	39
9	50	44	40	38	44	40	38	43	38	42	38	42	37	37
10	47	41	38	35	41	38	35	40	35	40	35	39	35	34

rc=Ceiling reflectance, rw=Wall reflectance, RCR=Room cavity ratio

CU Data Based on 20% Effective Floor Cavity Reflectance.

Candlepower Distribution



Test No. H22240
HD6-6750C
Lamp=150W A21
Inside
Frosted
Lumens=2850
Spacing Criteria=1.4
Efficiency=71.0%

Candlepower

Deg.	CD
0	841
5	847
15	957
25	1089
35	1038
45	569
55	72
65	0
75	0
85	0
90	0

Average Luminance

Deg.	CD/SQ M
45	48015
55	7490
65	0
75	0
85	0

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
5'6"	28	9'0"
6'6"	20	10'6"
8'0"	13	13'0"
10'0"	8	16'0"
12'0"	6	19'0"
14'0"	4	22'6"

Beam diameter is to 50% of maximum footcandles, rounded to the nearest half-foot.

Footcandle values are initial, apply appropriate light loss factors where necessary.

Reflector Multiplier

Low Iridescent = 0.95
Haze = 0.90
Straw = 0.85
Wheat = 0.85

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Luminaire
0-30	858	30.1	42.4
0-40	1495	52.5	73.9
0-60	2024	71.0	100.0
0-90	2024	71.0	100.0
90-180	0	0.0	0.0
0-180	2024	71.0	100.0

Coefficient of Utilization

rc	80%				70%			50%		30%		10%		0%
rw	70	50	30	10	50	30	10	50	10	50	10	50	10	0
RCR														
0	85	85	85	85	83	83	83	79	79	76	76	72	72	71
1	80	78	76	75	77	75	73	74	71	71	69	69	67	66
2	76	72	69	67	71	68	66	69	65	67	63	65	62	61
3	72	67	63	60	66	62	60	64	59	62	58	61	57	56
4	68	62	58	54	61	57	54	59	53	58	53	57	52	51
5	63	57	52	49	56	52	49	55	48	54	48	52	47	46
6	59	52	48	44	52	47	44	51	44	50	43	49	43	42
7	55	48	43	39	47	43	39	46	39	45	39	44	39	38
8	51	44	39	35	43	38	35	42	35	41	35	41	35	34
9	48	40	35	31	39	34	31	38	31	38	31	37	31	30
10	44	36	31	28	36	31	28	35	28	34	27	34	27	26

rc=Ceiling reflectance, rw=Wall reflectance, RCR=Room cavity ratio

CU Data Based on 20% Effective Floor Cavity Reflectance.