

FedEx Willington, CT – Dark Sky Compliance

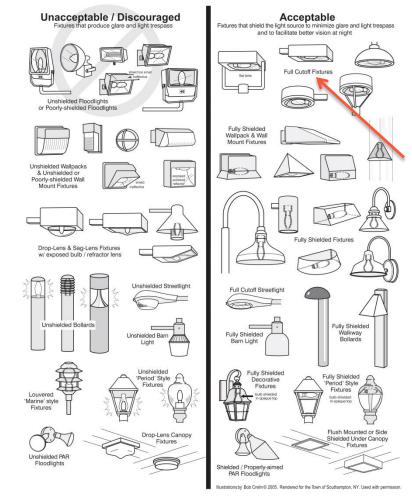
Abbey Renfrew

International Dark Sky Association

- Only be on when needed (exception for 24/7)
- Only light the area that needs it
- Be no brighter than necessary
- Minimize blue light emissions
- Be fully shielded (pointing downward)

Examples of Acceptable / Unacceptable Lighting Fixtures

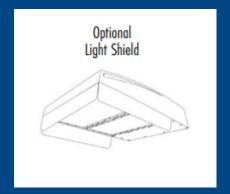




^{*} Information on this slide taken directly from IDA website.



 Adding light shield accessory for additional shielding and glare reduction







Parking Lot Fixture

- Photometric report provided by manufacturer with detailed measurements of lighting rays at all angles
- No light is emitted upward





IES ROAD REPORT

PHOTOMETRIC FILENAME: U-ARAL-300-50-T3-SHIELD.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002 [TESTLAB] Ultron Lab [ISSUEDATE] 08-22-2018 [LUMCAT] U-ARAL-300-50-T3-S [LUMINAIRE] 300W Area Light with Shield

CHARACTERISTICS

BUG Rating

IES Classification	Type III
Longitudinal Classification	Very Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	42000
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	140 `
Total Luminaire Watts	300
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	31593.574
Maximum Candela Angle	20H 51V
Maximum Candela (<90 Degrees Vertical)	31593.574
Maximum Candela Angle (<90 Degrees Vertical)	20H 51V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	300.567 (0.7% Luminaire Lumer
Cutoff Classification (deprecated)	N.A. (absolute)
LUMINAIRE CLASSIFICATION SYSTEM (LCS)	

FL - Front-Low (0-30) FM - Front-Medium (30-60) FM - Front-High (60-80) FM - Front-High (60-90) BL - Back-Low (0-30) BM - Back-Medium (30-60) BH - Back-High (60-80) BVH - Back-Vey High (80-90) UL - Uplight-Low (90-100) UL - Uplight-High (100-180)	Lumens 2848.0 23723.8 10711.6 35.3 1193.4 2330.8 1149.6 7.4 0.0	% Lamp N.A. N.A. N.A. N.A. N.A. N.A. N.A. N.A	% Luminaire 6.8 56.5 25.5 0.1 2.8 5.5 2.7 0.0 0.0
Total	41999.9	N.A.	100.0

B3-U0-G4

Photometric Toolbax Professional Edition - Copyright 2002-2015 by Lighting Analysis, Inc. Calculators based on published IEB Methods and recommendators, values rounded for display purposes. Results derived from content of manufactures photometric file.

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Parking Lot Fixture

LUMINAIRE CLASSIFICATION SYSTEM (LCS)

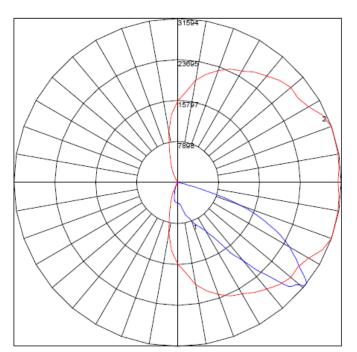
	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	2848.0	N.A.	6.8
FM - Front-Medium (30-60)	23723.8	N.A.	56.5
FH - Front-High (60-80)	10711.6	N.A.	25.5
FVH - Front-Very High (80-90)	35.3	N.A.	0.1
BL - Back-Low (0-30)	1193.4	N.A.	2.8
BM - Back-Medium (30-60)	2330.8	N.A.	5.5
BH - Back-High (60-80)	1149.6	N.A.	2.7
BVH - Back-Very High (80-90)	7.4	N.A.	0.0
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	41999.9	N.A.	100.0



Parking Lot Fixture

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POLAR GRAPH

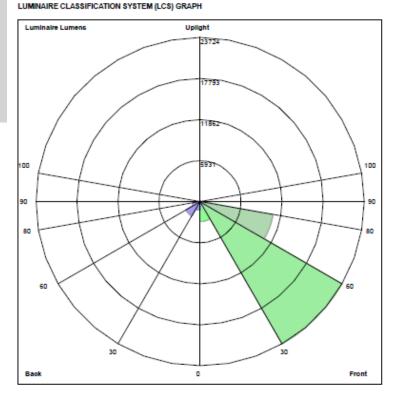


Maximum Candela = 31593.574 Located At Horizontal Angle = 20, Vertical Angle = 51

#1 - Vertical Plane Through Horizontal Angles (20 - 200) (Through Max. Cd.)

#2 - Horizontal Cone Through Vertical Angle (51) (Through Max. Cd.)

IES ROAD REPORT PHOTOMETRIC FILENAME : U-ARAL-300-50-T3-SHIELD.IES



Luminaire Lumens: Front Low= 2848.0, Medium=23723.8, High=10711.6, Very High=35.3 Back: Low=1193.4, Medium=2330.8, High=1149.6, Very High=7.4 Upilght: Low=0.0, High=0.0



Questions/ Comments?