

COOPER LIGHTING - METALUX®

DESCRIPTION

The VT2 Series is an energy efficient industrial Vaportite fixture that features rugged and durable construction. The VT2 incorporates a full metal fixture liner inside a reinforced fiberglass housing with a high impact diffuser. This Vaportite series is suitable for interior and exterior applications and can be surface or chain mounted.

The VT2 Series has been designed for maximum operation in commercial institutional and industrial environments where weathering, high temperature, humidity and dust or corrosive fumes are present.

SPECIFICATION FEATURES

A ... Construction

Fiberglass housing is reinforced polyester and self-extinguishing (ASTM-D635-74) plastic of a permanent pearl gray color. Top of housing has nine embossments (4' unit) and thirteen embossments (8' unit), providing mounting flexibility on uneven surfaces. A watertight hub for 1/2" conduit entry is provided at each end of housing (standard) for continuous feed. Polyurethane gasketing is formed in the housing providing a continuous seamless seal for the diffuser. Six sturdy cam latches (4' unit) and twelve (8' and tandem unit) clamp diffuser tightly for a positive seal between housing, gasketing and diffuser.

B ... Electrical*

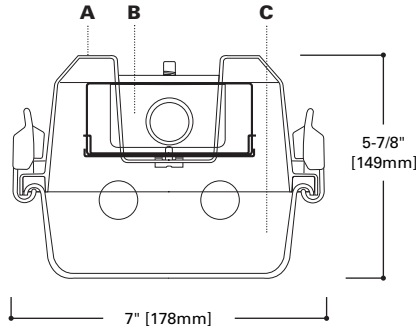
Unit has full metal liner (channel) secured by brass internal/external mounting studs for positive grounding, maximum protection and rigidity. Ballasts are CBM/ETL Class "P" certified suitable to plus 50°F. Spring loaded lampholders. Electrical components and fixtures are UL/CUL listed for Wet Locations.** IP65 approved (4' only).

C ... Lens

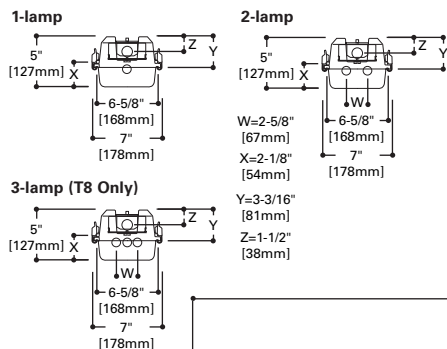
"DR" - Clear low brightness pattern acrylic with 15% high impact additive.
 "DR-100" - Clear low brightness pattern acrylic with 100% high impact additive.
 Example: VT2-296DR-100
 "LEX" - High impact clear low brightness pattern polycarbonate. LEXAN
 Example: VT2-296LEX.

D ... Reflectors

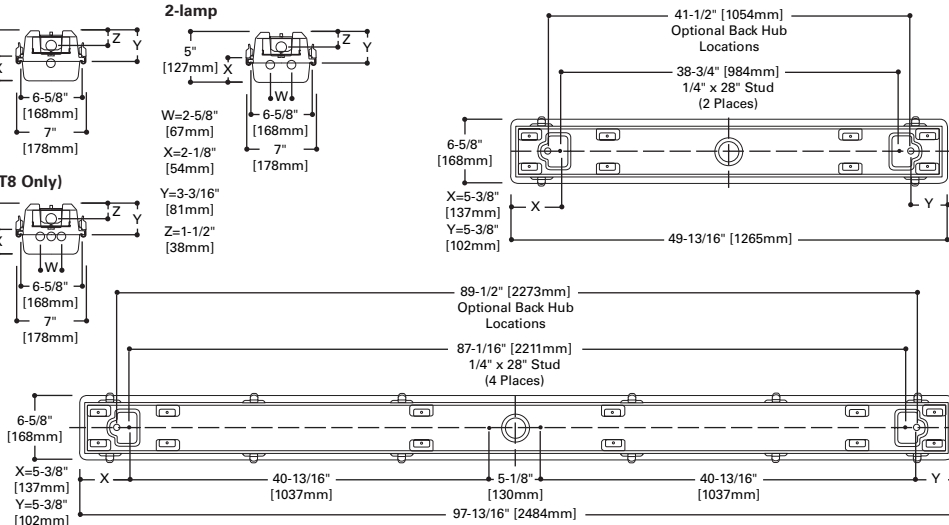
Optional die formed finished or 95% specular miro reflector.



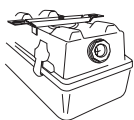
LAMP CONFIGURATIONS



MOUNTING DATA



INSTALLATION DATA



MOUNTING BRACKETS
 Furnished
 Two per 2' and 4' Unit
 Four per 8' Unit



OPTIONAL CHAIN HANGING SET
 (VT2-CHAIN/SET-U)
 Includes 6 ft. of chain, 4 large S-Hooks and 4 small S-Hooks
 Order One (1) Kit for each 2' or 4' Fixture
 Two (2) Kits Recommended For 8' Fixture



VT2
132
232
332
154T5
254T5

4' OR 8' INDUSTRIAL
1, 2 OR 3 LAMP T8
1 OR 2 LAMP T5HO

Vaportight Industrial

ENERGY DATA

Input Watts:
EB Ballast & STD Lamps
 132 (36), 232 (57), 332 (82)
EB Ballast & T5HO Lamps
 254T5 (121), 8T254T5 (242)
EB Ballast & T5HO Lamps
 154T5 (62), 254T5 (117)
EB Plus Ballast & STD Lamps
 132 (46), 232 (73), 332 (108)
 Luminaire Efficacy Rating
LER = FI-73
Catalog Number: VT-232DR
Yearly Cost of 1000 lumens,
3000 hrs at .08 KWH = \$3.29

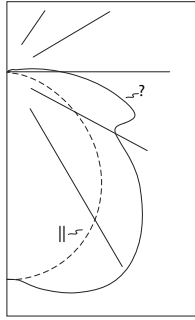
*Reference the lamp/ballast data in the Technical Section for specific lamp/ballast requirements.

**Not Suitable for Wet Locations if EL4 Option is added. Consult Pre Sales Technical Support.

LAMPS CONTAIN MERCURY. DISPOSE ACCORDING TO LOCAL, STATE OR FEDERAL LAWS

LINEAR DISCONNECT
 Safe and convenient means of disconnecting power

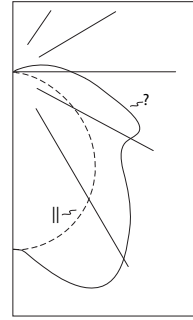




VT2-254DR-UNV-EB81-WL-M4-U
 Electronic Ballast
 (2) F54/T5/835 Lamps
 4460 Lumens each
 Spacing criterion:
 (II) 1.2 x mounting height, (?) 1.6 x mounting height
 Efficiency 74.3%
 Test Report:
 127P111
 LER = FI57
 Yearly Cost of 1000 lumens, 3000 hrs at .08 KWH = \$4.24

Candlepower

Angle	Along II	45°	Across ?
0	1615	1615	1615
5	1613	1632	1648
10	1592	1673	1723
15	1556	1704	1781
20	1504	1717	1820
25	1438	1712	1839
30	1357	1683	1815
35	1262	1625	1743
40	1154	1532	1635
45	1033	1412	1499
50	902	1263	1355
55	762	1101	1180
60	621	944	994
65	485	775	968
70	362	667	1051
75	253	677	992
80	158	612	827
85	74	455	647
90	26	297	463



VT2-232DR-UNV-EB81-WL-M4-U
 Electronic Ballast
 (2) T8 Lamps
 2850 Lumens each
 Spacing criterion:
 (II) 1.3 x mounting height, (?) 1.6 x mounting height
 Efficiency 81.7%
 Test Report:
 127P113
 LER = FI71
 Yearly Cost of 1000 lumens, 3000 hrs at .08 KWH = \$3.39

Candlepower

Angle	Along II	45°	Across ?
0	1036	1036	1036
5	1036	1059	1077
10	1023	1114	1175
15	1000	1175	1275
20	968	1227	1344
25	926	1255	1352
30	876	1245	1284
35	817	1184	1182
40	750	1080	1070
45	674	961	946
50	591	834	833
55	501	706	780
60	408	597	785
65	317	533	816
70	233	520	755
75	160	489	624
80	97	396	518
85	45	302	434
90	16	224	353

Coefficients of Utilization

rc	Effective floor cavity reflectance 20%																	
	80%		70%		50%		30%		10%		0%							
	70	50	30	10	70	50	30	10	50	30	10	0						
RCR																		
0	87	87	87	87	85	85	85	85	80	80	80	76	76	76	72	72	72	70
1	78	73	70	66	75	71	68	65	67	64	62	64	61	59	60	59	57	55
2	70	63	57	52	68	61	56	51	58	53	50	55	51	48	52	49	46	44
3	64	55	48	43	61	53	47	42	51	45	41	48	43	40	45	42	39	37
4	58	48	41	36	56	47	40	35	45	39	34	42	38	34	40	36	33	31
5	53	43	36	31	51	42	35	30	40	34	30	38	33	29	36	32	28	26
6	49	39	32	27	47	38	31	26	36	30	26	34	29	25	33	28	25	23
7	45	35	28	23	44	34	28	23	32	27	23	31	26	22	30	25	22	20
8	42	32	25	21	41	31	25	20	30	24	20	28	23	20	27	23	19	18
9	39	29	23	18	38	28	22	18	27	22	18	26	21	18	25	21	17	16
10	37	27	21	17	36	26	20	16	25	20	16	24	19	16	23	19	16	14

Coefficients of Utilization

rc	Effective floor cavity reflectance 20%																	
	80%		70%		50%		30%		10%		0%							
	70	50	30	10	70	50	30	10	50	30	10	0						
RCR																		
0	96	96	96	96	93	93	93	93	87	87	87	82	82	82	78	78	78	76
1	86	81	77	73	83	78	74	71	74	70	68	69	67	64	65	63	61	59
2	77	69	63	58	74	67	61	57	63	58	54	60	56	52	56	53	50	48
3	70	60	53	47	67	59	52	46	55	49	45	52	47	43	49	45	42	40
4	64	53	45	40	61	52	44	39	49	43	38	46	41	37	44	39	35	33
5	58	47	39	34	56	46	39	33	44	37	32	41	36	31	39	34	31	29
6	54	42	35	29	52	41	34	29	39	33	28	37	32	27	35	30	27	25
7	50	38	31	26	48	37	30	25	35	29	25	34	28	24	32	27	24	22
8	46	35	28	23	45	34	27	22	32	26	22	31	25	21	29	25	21	19
9	43	32	25	20	42	31	25	20	30	24	20	28	23	19	27	22	19	17
10	40	29	23	18	39	29	22	18	27	22	18	26	21	17	25	20	17	15

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	1411	15.8	21.3
0-40	2397	26.9	36.2
0-60	4380	49.1	66.2
0-90	6268	70.3	94.8
0-180	6614	74.2	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	7779	10632	11288
55	7074	10221	10954
65	6110	9764	12196
75	5205	13928	20408
85	4251	27797	39527

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	985	17.3	21.1
0-40	1675	29.4	36.0
0-60	2999	52.6	64.4
0-90	4316	75.7	92.7
0-180	4658	81.7	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	4874	6095	5343
55	4392	5171	4906
65	3669	4791	5995
75	2853	5921	5721
85	1868	5874	5512

ORDERING INFORMATION

SAMPLE NUMBER: 8TVT2-254DR-UNV-EB82-M4-U

<p>Width Blank=4' Length 8T=8' Length</p> <p>Series VT2=Vapor-Tite</p> <p>Number of Lamps⁽³⁾ 1=1 lamp (T5 or T8) 2=2 lamps (T5 or T8) 3=3 lamps (T8 only) (Lamps not included)</p> <p>Lamp Type 32=32W T8 Lamp (4' Long) 54T5=54W T5HO Lamp (4' Long)</p> <p>Lens DR=Internal Prismatic Lens/15% DR High Impact Additive (Standard) DR-100%=100% High Impact Additive LEX=High Impact Clear Polycarbonate LEXAN Lens/Low Brightness Pattern</p>	<p>Voltage⁽¹⁾ 120V=120 Volt 277V=277 Volt 347V=347 Volt 480V=480 Volt UNV=Universal Voltage 120/277V UNC=Universal Voltage 347/480V (T5 Linear Only)</p> <p>Fusing GL=Single Element Fuse GM=Double Element Fuse Emergency=EM Installed, see EM options table⁽³⁾⁽⁴⁾</p>	<p>Ballast Type⁽¹⁾ T8 Systems EB8 =T8 Electronic Instant Start.⁽⁴⁾ Total Harmonic Distortion < 20% No. of Ballast 1 or 2 EB8 /PLUS=T8 Electronic Instant Start. High Ballast Factor >1.13. Total Harmonic Distortion < 20% No. of Ballast 1 or 2 ER8 =T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10% No. of Ballast 1 or 2 ER8 /PLUS=T8 Electronic Program Start. High Ballast Factor >1.13. Total Harmonic Distortion < 10% No. of Ballast 1 or 2 EB8 /L=T8 Electronic Instant Start w/0.80 Ballast Factor. No. of Ballast 1 or 2 T5 Systems EBT =T5HO Electronic Program Start. No. of Ballast 1 or 2</p>	<p>WL=Wet Location Label</p>	<p>Options RIF1=Radio Interference Suppressor TH=(2) Top Watertite Hubs TEH=(2) Top & (2) End Watertite Hubs (all Watertite Hubs have 1/2" Conduit Entry) TILW=Tandem In-Line Wiring Option (Consult TILW Option Catalog Page) PI/CPI=Plug-In Option DD=Deep Diffuser (4' Length) (Available for 4' Fixture Length) To Complement Deep Diffuser Depth of 8' Fixture M4=Specular Reflector SSL=Stainless Steel Latches</p> <p>ACCESSORIES</p> <p>Accessories (order separately) VT2-Chain/Set-U=Chain Hanging Set Includes 6 ft. of chain, 4 large S-Hooks and 4 small S-Hooks Order One (1) Kit for each 2' or 4' Fixture Two (2) Kits Recommended For 8' Fixture VT2-SS-MBK=Stainless Steel Mounting Bracket</p>	<p>Packaging U=Unit Pack PALC=Job Pack in Carton</p>
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NOTES: ⁽¹⁾Ballast type used only if ballast & voltage is chosen ⁽²⁾Not available when specifying emergencies, voltage must be specific. ⁽³⁾T5HO is only available in 1 or 2-lamp versions only. ⁽⁴⁾Emergency option in 3 lamp version must use remote mount test switch.



SHIPPING DATA

Catalog No.	Wt.
VT2-132DR-WL	35 lbs.
VT2-232DR-WL	35 lbs.

COOPER LIGHTING - METALUX®

DESCRIPTION

The VT2 Series is an energy efficient industrial Vaportite fixture that features rugged and durable construction. The VT2 incorporates a full metal fixture liner inside a reinforced fiberglass housing with a high impact diffuser. This Vaportite series is suitable for interior and exterior applications and can be surface or chain mounted.

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Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

A ... Construction

Fiberglass housing is reinforced polyester and self-extinguishing (ASTM-D635-74) plastic of a permanent pearl gray color. Top of housing has nine embossments (4' unit) and thirteen embossments (8' unit), providing mounting flexibility on uneven surfaces. A watertight hub for 1/2" conduit entry is provided at each end of housing (standard) for continuous feed. Polyurethane gasketing is formed in the housing providing a continuous seamless seal for the diffuser. Six sturdy cam latches (4' unit) and twelve (8' and tandem unit) clamp diffuser tightly for a positive seal between housing, gasketing and diffuser.

B ... Electrical*

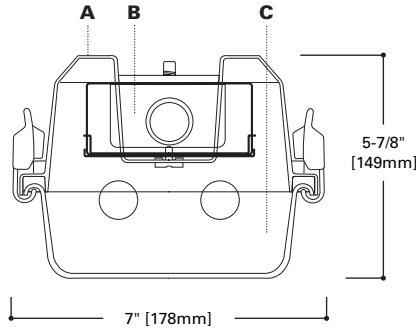
Unit has full metal liner (channel) secured by brass internal/external mounting studs for positive grounding, maximum protection and rigidity. Ballasts are CBM/ETL Class "P" certified suitable to plus 50°F. Spring loaded lampholders. Electrical components and fixtures are UL/CUL listed for Wet Locations.** IP65 approved (4' only).

C ... Lens

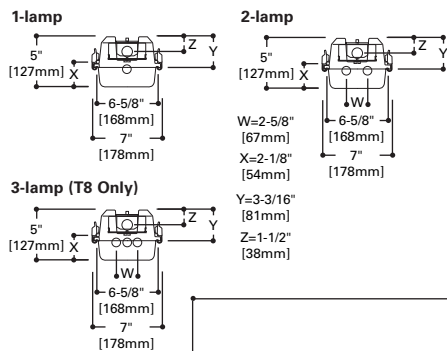
"DR" - Clear low brightness pattern acrylic with 15% high impact additive.
 "DR-100" - Clear low brightness pattern acrylic with 100% high impact additive.
 Example: VT2-296DR-100
 "LEX" - High impact clear low brightness pattern polycarbonate. LEXAN
 Example: VT2-296LEX.

D ... Reflectors

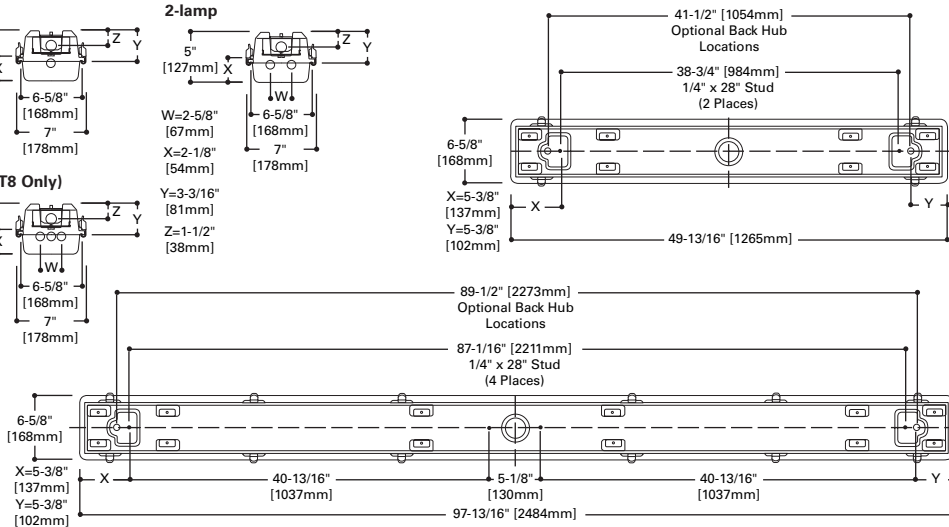
Optional die formed finished or 95% specular miro reflector.



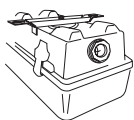
LAMP CONFIGURATIONS



MOUNTING DATA



INSTALLATION DATA



MOUNTING BRACKETS
 Furnished
 Two per 2' and 4' Unit
 Four per 8' Unit



OPTIONAL CHAIN HANGING SET (VT2-CHAIN/SET-U)

Includes 6 ft. of chain, 4 large S-Hooks and 4 small S-Hooks
 Order One (1) Kit for each 2' or 4' Fixture
 Two (2) Kits Recommended For 8' Fixture



VT2
132
232
332
154T5
254T5

4' OR 8' INDUSTRIAL
1, 2 OR 3 LAMP T8
1 OR 2 LAMP T5HO

Vaportight Industrial

ENERGY DATA

Input Watts:
EB Ballast & STD Lamps
 132 (36), 232 (57), 332 (82)
EB Ballast & T5HO Lamps
 254T5 (121), 8T254T5 (242)
EB Ballast & T5HO Lamps
 154T5 (62), 254T5 (117)
EB Plus Ballast & STD Lamps
 132 (46), 232 (73), 332 (108)
 Luminaire Efficacy Rating
LER = FI-73
Catalog Number: VT-232DR
Yearly Cost of 1000 lumens,
3000 hrs at .08 KWH = \$3.29

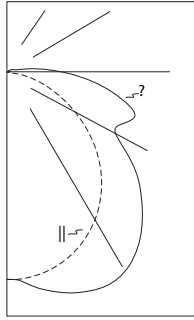
*Reference the lamp/ballast data in the Technical Section for specific lamp/ballast requirements.

**Not Suitable for Wet Locations if EL4 Option is added. Consult Pre Sales Technical Support.

LAMPS CONTAIN MERCURY. DISPOSE ACCORDING TO LOCAL, STATE OR FEDERAL LAWS

LINEAR DISCONNECT
 Safe and convenient means of disconnecting power

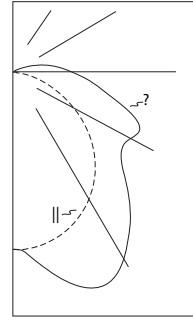




VT2-254DR-UNV-EB81-WL-M4-U
 Electronic Ballast
 (2) F54/T5/835 Lamps
 4460 Lumens each
 Spacing criterion:
 (II) 1.2 x mounting
 height, (?) 1.6 x
 mounting height
 Efficiency 74.3%
 Test Report:
 127P111
 LER = FI57
 Yearly Cost of 1000
 lumens, 3000 hrs at
 .08 KWH = \$4.24

Candlepower

Angle	Along II	45°	Across ?
0	1615	1615	1615
5	1613	1632	1648
10	1592	1673	1723
15	1556	1704	1781
20	1504	1717	1820
25	1438	1712	1839
30	1357	1683	1815
35	1262	1625	1743
40	1154	1532	1635
45	1033	1412	1499
50	902	1263	1355
55	762	1101	1180
60	621	944	994
65	485	775	968
70	362	667	1051
75	253	677	992
80	158	612	827
85	74	455	647
90	26	297	463



VT2-232DR-UNV-EB81-WL-M4-U
 Electronic Ballast
 (2) T8 Lamps
 2850 Lumens each
 Spacing criterion:
 (II) 1.3 x mounting
 height, (?) 1.6 x
 mounting height
 Efficiency 81.7%
 Test Report:
 127P113
 LER = FI71
 Yearly Cost of 1000
 lumens, 3000 hrs at
 .08 KWH = \$3.39

Candlepower

Angle	Along II	45°	Across ?
0	1036	1036	1036
5	1036	1059	1077
10	1023	1114	1175
15	1000	1175	1275
20	968	1227	1344
25	926	1255	1352
30	876	1245	1284
35	817	1184	1182
40	750	1080	1070
45	674	961	946
50	591	834	833
55	501	706	780
60	408	597	785
65	317	533	816
70	233	520	755
75	160	489	624
80	97	396	518
85	45	302	434
90	16	224	353

Coefficients of Utilization

rc	Effective floor cavity reflectance																	
	80%				70%				20%									
	70	50	30	10	70	50	30	10	50	30	10	50	30	10				
0	87	87	87	87	85	85	85	85	80	80	80	76	76	76	72	72	72	70
1	78	73	70	66	75	71	68	65	67	64	62	64	61	59	60	59	57	55
2	70	63	57	52	68	61	56	51	58	53	50	55	51	48	52	49	46	44
3	64	55	48	43	61	53	47	42	51	45	41	48	43	40	45	42	39	37
4	58	48	41	36	56	47	40	35	45	39	34	42	38	34	40	36	33	31
5	53	43	36	31	51	42	35	30	40	34	30	38	33	29	36	32	28	26
6	49	39	32	27	47	38	31	26	36	30	26	34	29	25	33	28	25	23
7	45	35	28	23	44	34	28	23	32	27	23	31	26	22	30	25	22	20
8	42	32	25	21	41	31	25	20	30	24	20	28	23	20	27	23	19	18
9	39	29	23	18	38	28	22	18	27	22	18	26	21	18	25	21	17	16
10	37	27	21	17	36	26	20	16	25	20	16	24	19	16	23	19	16	14

Coefficients of Utilization

rc	Effective floor cavity reflectance																	
	80%				70%				20%									
	70	50	30	10	70	50	30	10	50	30	10	50	30	10				
0	96	96	96	96	93	93	93	93	87	87	87	82	82	82	78	78	78	76
1	86	81	77	73	83	78	74	71	74	70	68	69	67	64	65	63	61	59
2	77	69	63	58	74	67	61	57	63	58	54	60	56	52	56	53	50	48
3	70	60	53	47	67	59	52	46	55	49	45	52	47	43	49	45	42	40
4	64	53	45	40	61	52	44	39	49	43	38	46	41	37	44	39	35	33
5	58	47	39	34	56	46	39	33	44	37	32	41	36	31	39	34	31	29
6	54	42	35	29	52	41	34	29	39	33	28	37	32	27	35	30	27	25
7	50	38	31	26	48	37	30	25	35	29	25	34	28	24	32	27	24	22
8	46	35	28	23	45	34	27	22	32	26	22	31	25	21	29	25	21	19
9	43	32	25	20	42	31	25	20	30	24	20	28	23	19	27	22	19	17
10	40	29	23	18	39	29	22	18	27	22	18	26	21	17	25	20	17	15

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	1411	15.8	21.3
0-40	2397	26.9	36.2
0-60	4380	49.1	66.2
0-90	6268	70.3	94.8
0-180	6614	74.2	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	7779	10632	11288
55	7074	10221	10954
65	6110	9764	12196
75	5205	13928	20408
85	4251	27797	39527

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	985	17.3	21.1
0-40	1675	29.4	36.0
0-60	2999	52.6	64.4
0-90	4316	75.7	92.7
0-180	4658	81.7	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	4874	6095	5343
55	4392	5171	4906
65	3669	4791	5995
75	2853	5921	5721
85	1868	5874	5512

ORDERING INFORMATION

SAMPLE NUMBER: 8TVT2-254DR-UNV-EB82-M4-U

<p>Width Blank=4' Length 8T=8' Length</p> <p>Series VT2=Vapor-Tite</p> <p>Number of Lamps⁽³⁾ 1=1 lamp (T5 or T8) 2=2 lamps (T5 or T8) 3=3 lamps (T8 only) (Lamps not included)</p> <p>Lamp Type 32=32W T8 Lamp (4' Long) 54T5=54WT5HO Lamp (4' Long)</p> <p>Lens DR=Internal Prismatic Lens/15% DR High Impact Additive (Standard) DR-100%=100% High Impact Additive LEX=High Impact Clear Polycarbonate LEXAN Lens/Low Brightness Pattern</p>	<p>Voltage⁽¹⁾ 120V=120 Volt 277V=277 Volt 347V=347 Volt 480V=480 Volt UNV=Universal Voltage 120/277V UNC=Universal Voltage 347/480V (T5 Linear Only)</p> <p>Fusing GL=Single Element Fuse GM=Double Element Fuse Emergency=EM Installed, see EM options table⁽³⁾⁽⁴⁾</p>	<p>Ballast Type⁽¹⁾ T8 Systems EB8 =T8 Electronic Instant Start.⁽⁴⁾ Total Harmonic Distortion < 20% No. of Ballast 1 or 2 EB8 /PLUS=T8 Electronic Instant Start. High Ballast Factor >1.13. Total Harmonic Distortion < 20% No. of Ballast 1 or 2 ER8 =T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10% No. of Ballast 1 or 2 ER8 /PLUS=T8 Electronic Program Start. High Ballast Factor >1.13. Total Harmonic Distortion < 10% No. of Ballast 1 or 2 EB8 /L=T8 Electronic Instant Start w/0.80 Ballast Factor. No. of Ballast 1 or 2 T5 Systems EBT =T5HO Electronic Program Start. No. of Ballast 1 or 2</p>	<p>WL=Wet Location Label</p>	<p>Options RIF1=Radio Interference Suppressor TH=(2) Top Watertite Hubs TEH=(2) Top & (2) End Watertite Hubs (all Watertite Hubs have 1/2" Conduit Entry) TILW=Tandem In-Line Wiring Option (Consult TILW Option Catalog Page) PI/CPI=Plug-In Option DD=Deep Diffuser (4' Length) (Available for 4' Fixture Length) To Complement Deep Diffuser Depth of 8' Fixture M4=Specular Reflector SSL=Stainless Steel Latches</p>	<p>Packaging U=Unit Pack PALC=Job Pack in Carton</p>
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NOTES: ⁽¹⁾Ballast type used only if ballast & voltage is chosen ⁽²⁾Not available when specifying emergencies, voltage must be specific. ⁽³⁾T5HO is only available in 1 or 2-lamp versions only. ⁽⁴⁾Emergency option in 3 lamp version must use remote mount test switch.

ACCESSORIES

Accessories (order separately)
VT2-Chain/Set-U=Chain Hanging Set
 Includes 6 ft. of chain, 4 large S-Hooks and 4 small S-Hooks
 Order One (1) Kit for each 2' or 4' Fixture
 Two (2) Kits Recommended For 8' Fixture
VT2-SS-MBK=Stainless Steel Mounting Bracket



SHIPPING DATA

Catalog No.	Wt.
VT2-132DR-WL	35 lbs.
VT2-232DR-WL	35 lbs.