

## Comparison Chart



### HID to **RUUD LED** Equivalent Data Assumptions

HID: 70% optical efficiency, standard rated lamp life

LED: 85% NanoOptic™ efficiency\*, 93% driver efficiency, 100,000 hour life

Scotopic/Photopic lumen adjustment multipliers\*\*

MH/PS x 1.49; HPS x .62; 6500K LED x 2.14

HID				LED				
HID Lamp	Scotopic Initial Delivered Lumens	Scotopic Average Delivered Lumens**	System Watts	Number of Light Bars	Scotopic Initial Delivered Lumens	Scotopic Average Delivered Lumens** Over 50,000 hours	System Watts	Energy Savings %
PS 70 (H)	5,215	3,278	90	1	3,424	3,253	27	70%
PS 100 (H)	8,419	5,290	127	2	6,848	6,506	54	57%
PS 150 (V)	14,602	10,728	190	3	10,272	9,758	81	57%
MH 175 (V)	14,602	9,387	210	3	10,272	9,758	81	61%
MH 250 (H)	19,743	12,367	289	4	13,696	13,011	108	63%
PS 320 (H)	31,290	23,095	368	7	23,968	22,770	189	49%
MH 400 (H)	33,823	21,605	455	7	23,968	22,770	189	58%
PS 400 (H)	41,720	32,780	450	10	34,240	32,528	270	40%
HPS 70	2,759	2,418	105	1	3,424	3,253	27	74%
HPS 100	4,123	3,751	130	1	3,424	3,253	27	79%
HPS 150	6,913	6,262	188	2	6,848	6,506	54	71%
HPS 250	13,020	11,780	300	4	13,696	13,011	108	64%
HPS 400	21,700	19,840	460	6	20,544	19,517	162	65%

Specify by Initial Delivered Lumens

### Scotopic Light Bar Output and System Watts

Number of Light Bars	Scotopic Initial Delivered Lumens	Scotopic Average Delivered Lumens**	System Watts	"A" Dimension***	Number of Light Bars	Scotopic Initial Delivered Lumens	Scotopic Average Delivered Lumens**	System Watts	"A" Dimension***
Single LED	171	163	1.3	n/a	7	23,968	22,770	189	22
1	3,424	3,253	27	10	8	27,392	26,022	216	24
2	6,848	6,506	54	12	9	30,816	29,275	243	26
3	10,272	9,758	81	14	10	34,240	32,528	270	28
4	13,696	13,011	108	16	11	37,664	35,781	297	30
5	17,120	16,264	135	18	12	41,088	39,034	324	32
6	20,544	19,517	162	20					

\* Representative optical efficiency. For exact photometric performance data consult product specification sheet and/or IES photometric file.

\*\* "Energy Efficiency Consequences of Scotopic Sensitivity" S.M. Berman, Journal of the IES, Vol 21, No. 1, Dec. 1992.

\*\*\* See Spec sheet for "A" dimension



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# Photopic

# Comparison Chart



## HID to **RUUD LED** Equivalent Data Assumptions

HID: 70% optical efficiency, standard rated lamp life

LED: 85% NanoOptic™ efficiency\*, 93% driver efficiency, 100,000 hour life

HID				LED				
HID Lamp	Photopic Initial Delivered Lumens	Photopic Average Delivered Lumens	System Watts	Number of Light Bars	Photopic Initial Delivered Lumens	Photopic Average Delivered Lumens Over 50,000 hours	System Watts	Energy Savings %
PS 70 (H)	3,500	2,200	90	2	3,200	3,040	54	-40%
PS 100 (H)	5,650	3,550	127	2	3,200	3,040	54	-57%
PS 150 (V)	9,800	7,200	190	5	8,000	7,600	135	-29%
MH 175 (V)	9,800	6,300	210	4	6,400	6,080	108	-49%
MH 250 (H)	13,250	8,300	289	6	9,600	9,120	162	-44%
PS 320 (H)	21,000	15,500	368	10	16,000	15,200	270	-27%
MH 400 (H)	22,700	14,500	455	10	16,000	15,200	270	-41%
PS 400 (H)	28,000	22,000	450	7 + 8	24,000	22,800	405	-10%
HPS 70	4,450	3,900	105	3	4,800	4,560	81	-23%
HPS 100	6,650	6,050	130	4	6,400	6,080	108	-17%
HPS 150	11,150	10,100	188	7	11,200	10,640	189	1%
HPS 250	21,000	19,000	300	12	19,200	18,240	324	8%
HPS 400	35,000	32,000	460	2 x 11	35,200	33,440	594	29%

Specify by Initial Delivered Lumens

### Photopic Light Bar Output and System Watts

Number of Light Bars	Photopic Initial Delivered Lumens	Photopic Average Delivered Lumens	System Watts	"A" Dimension**	Number of Light Bars	Photopic Initial Delivered Lumens	Photopic Average Delivered Lumens	System Watts	"A" Dimension**
Single LED	80	76	1.3	n/a	7	11,200	10,640	189	22
1	1,600	1,520	27	10	8	12,800	12,160	216	24
2	3,200	3,040	54	12	9	14,400	13,680	243	26
3	4,800	4,560	81	14	10	16,000	15,200	270	28
4	6,400	6,080	108	16	11	17,600	16,720	297	30
5	8,000	7,600	135	18	12	19,200	18,240	324	32
6	9,600	9,120	162	20					

\* Representative optical efficiency. For exact photometric performance data consult product specification sheet and/or IES photometric file.

\*\* See Spec sheet for "A" dimension

