Light efficiency:

142 Lumen/Watt

Light quality:

CRI: 73.4

Color temperature:

5425 K

Output: 11353 lm

Peak: 9316 cd

Power: 80.1 W

PF: 0.99

Beam angle **65.7°**

CIE 1931
x: 0.334
y: 0.335

Product name:
WPR2-50K80-WST1-BRP

Light Head Aiming:
both in default position, facing straight down

Date and time:
3/9/2021 10:41:34 AM

Spectra

Power

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Color Specifications

TM30: 69.0

CRI: 73.4 (R1-R8)

CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
72.6	77.9	80.1	74.9	73.0	68.7	80.2	59.9	-22.1	45.9	72.7	44.0	73.0	88.6	67.6

TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
64.1	70.7	56.9	65.3	71.1	84.8	85.6	77.5	75.2	53.3	48.1	69.0	78.3	74.8	66.4	74.4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
78.9	91.9	57.9	53.1	66.3	72.0	76.5	85.4	88.4	70.0	63.6	64.0	67.5	58.5	66.8

CQS: 68.7

Color parameters

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color diviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
5425 K	73.4	-22.1	69.0	95.1	68.7	0.334	0.335	0.210	0.317	-0.0070

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WPR2-50K80-WST1-BRP

TM30 Report

Rf 69.0

Fidelity index Rf

Rg 95.1

Gammut index Rg

		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	64	-17%	-2%
2	71	-13%	10%
3	57	-6%	21%
4	65	4%	19%
5	71	10%	12%
6	85	9%	0%
7	86	-1%	-8%
8	77	-10%	-6%
9	75	-18%	8%
10	53	-13%	22%
11	48	-3%	29%
12	69	6%	18%
13	78	14%	5%
14	75	11%	-6%
15	66	9%	-25%
16	74	-5%	-13%

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Illumination

*measured at center of beam

Beam intensities from 1-20m

1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
9300lx	2325lx	1033lx	581lx	372lx	258lx	190lx	145lx	115lx	93lx	77lx	65lx	55lx	47lx	41lx	36lx	32lx	29lx	26lx	23lx
864fcd	216fcd	96fcd	54fcd	34.6fcd	24fcd	17.6fcd	13.5fcd	10.7fcd	8.6fcd	7.1fcd	6fcd	5.1fcd	4.4fcd	3.8fcd	3.4fcd	3fcd	2.7fcd	2.4fcd	2.2fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
65.7°	**104.5°**	**122°**	**97.2%**	**85.9%**

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ISO Diagrams

ISO candela diagram

10%	930 cd
20%	1860 cd
30%	2790 cd
40%	3720 cd
50%	4650 cd
60%	5580 cd
70%	6510 cd
80%	7440 cd
90%	8370 cd

Conditions:

Number of c-planes: 16

Candela at center: 9300 cd

ISO lux diagram

Mounting height: 10 meters (33 feet)

3%	2.79 lx
5%	4.65 lx
10%	9.30 lx
30%	27.9 lx
50%	46.5 lx

Conditions:

Number of c-planes: 16

Lux at center: 93.0 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

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Light Planning

Coefficients of Utilization

Ceiling reflectance	80				70				50			30			10			0
Wall reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Floor reflectance	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	0
RCR	(RCR: Room Cavity Ratio)				Room Values are expressed as percentage of Lumens delivered to the task surface													
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	104	110	107	104	102	103	101	99	99	97	96	95	94	93	91
2	106	100	95	92	103	98	94	90	95	91	88	92	89	86	89	87	85	83
3	99	92	86	82	97	90	85	81	88	83	79	85	81	78	83	80	77	75
4	93	85	78	73	91	83	77	73	81	76	72	79	75	71	77	73	70	68
5	88	78	71	66	86	77	71	66	75	70	65	73	68	65	72	67	64	62
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	57
7	78	67	60	55	76	66	60	55	65	59	55	64	58	55	62	58	54	53
8	73	62	56	51	72	62	55	51	61	55	51	59	54	50	58	54	50	49
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45
10	66	55	48	44	64	54	48	44	53	48	44	52	47	43	52	47	43	42

Luminaire budgetary diagram

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
868 lm	2324 lm	2961 lm	2597 lm	1733 lm	554 lm	168 lm	76.2 lm	16.5 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
3.62 lm	4.03 lm	5.16 lm	7.19 lm	8.81 lm	9.42 lm	8.45 lm	5.90 lm	2.12 lm

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Road Report

LCS table

BUG rating:	B4 U3 G0	
Forward light	Lumens	Lumens %
Low(0-30):	3074.4	27.1%
Medium(30-60):	2443.3	21.5%
High(60-80):	122.6	1.1%
Very high(80-90):	8.4	0.1%
Back light		
Low(0-30):	3074.4	27.1%
Medium(30-60):	2443.3	21.5%
High(60-80):	122.6	1.1%
Very high(80-90):	8.4	0.1%
Uplight		
Low(90-100):	3.7	0%
High(100-180):	51.1	0.5%

LCS graph

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Stabilization

Warmup curve

Warmup result

Warmup time:	**19 min 33 sec**
Warmup variation	**-3.9%**

Warmup conditions

Stable period:	**15 min**
Stable change max:	**2.0%**
Minimum time:	**15 min**

Color temperature change

CCT start	CCT change	CCT end
5354 K	+71 K	5425 K

Output change

Output start	Output change	Output end
11795 lm	-442 lm	11353 lm

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Flicker

Flicker curve (complete sampled flicker signal)

Flicker frame (frame of one flicker period)

Flicker FFT (frequency scope of flicker curve)

Flicker results:

Flicker frequency:	**119.76 Hz**
Flicker index:	**0.07**
Flicker percentage:	**21.31 %**
SVM: (Visual flicker)	**0.76**

Flicker conditions:

Sample rate:	**40000 samples/second**

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