


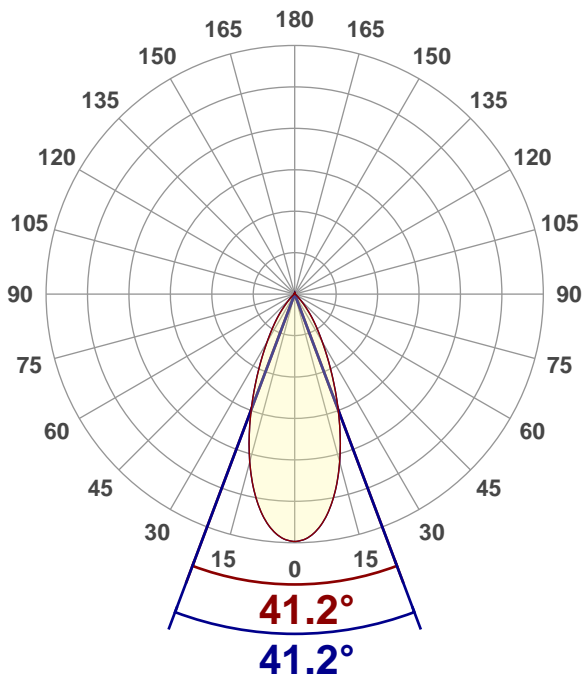
Light efficiency:


66 Lumen/Watt

Light quality:


CRI: 96.4

Color temperature:


5059 K
Output: 1416 lm**Peak: 2448 cd****Power: 21.6 W****Voltage: 120 V****Current: 0.182 A****PF: 0.99****THD: 19.56 %**

Product name:

RA56-20F-90WHWH - 5000K

Driver Used:

SLM-CDVR-20W

Test Date:

2019-05-08

Beam Angle:

41.2°

Field Angle:

75.2°

Cut Off Angle:

92.7°**Beam details**

*measured at center of beam

Mounting Height (feet)/(meter)	Lux*	Footcandles*	Beam width (feet) / (meter)
4 ft / 1.2 m	1647 lx	153 fcd	3 ft / 0.9 m
8 ft / 2.4 m	412 lx	38 fcd	6 ft / 1.8 m
12 ft / 3.7 m	183 lx	17 fcd	9 ft / 2.8 m
16 ft / 4.9m	103 lx	10 fcd	12 ft / 3.7 m
20 ft / 6.1m	66 lx	6 fcd	15 ft / 4.6 m

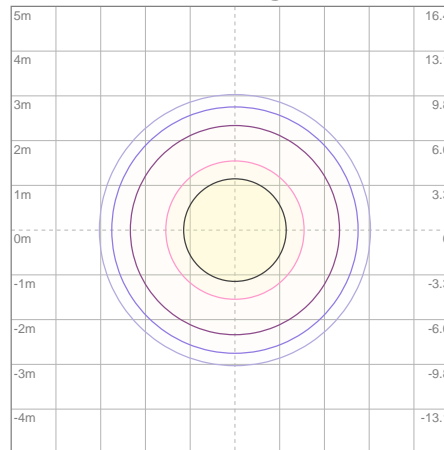
Beam center

Light planning Photometric Testing Report

Zonal Lumen Summary

Zone	Lumen	%Luminaire
0-30	1086	76.69%
0-40	1296	91.53%
0-60	1378	97.32%
60-90	13.0	0.92%
70-100	10.8	0.76%
90-120	10.7	0.76%
0-90	1391	98.23%
90-180	24.6	1.74%
0-180	1416	100.00%

ISO lux diagram



Mounting height: 3.05 meters (10 feet)

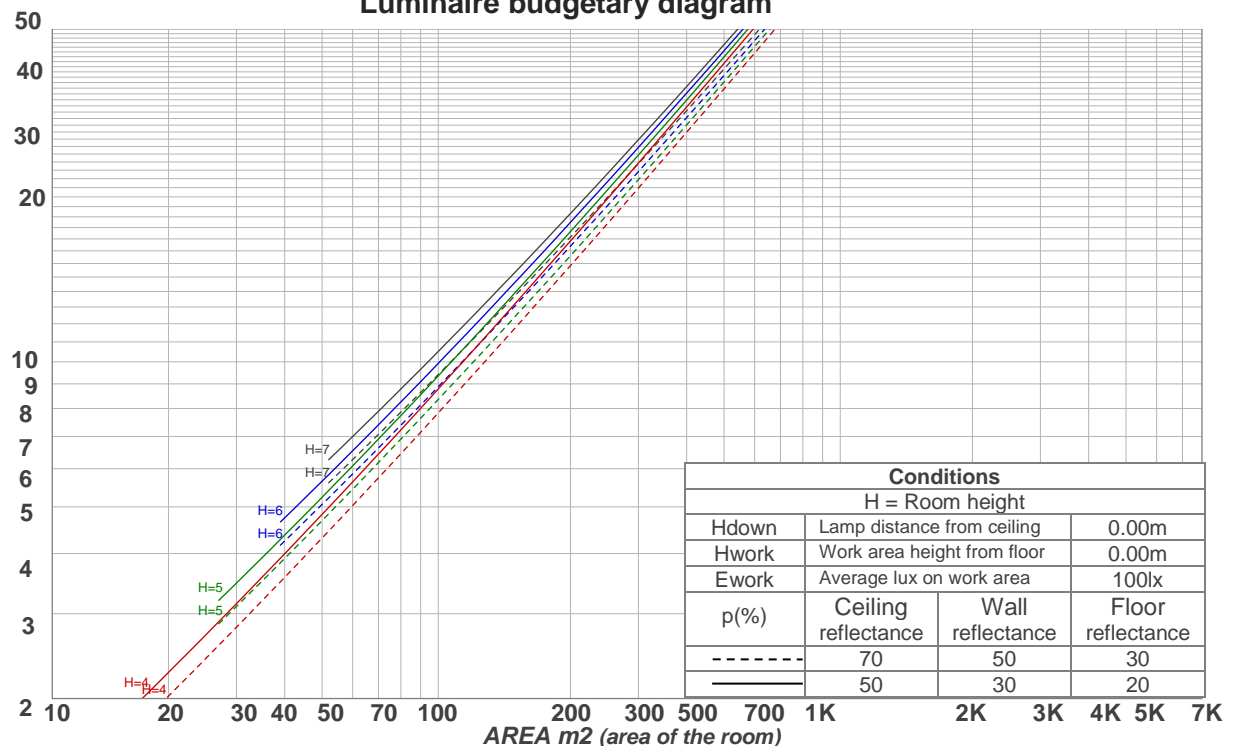
Lux at center:	263 lx
3%	7.89 lx
5%	13.15 lx
10%	26.30 lx
30%	78.90 lx
50%	131.50 lx
Conditions: Number of planes: 8 Lux distribution on a surface when lamp is mounted at 3.05 meters from the surface.	

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	110	110	110	105	105	105	100	100	100	98
1	113	111	108	106	111	108	106	104	104	102	101	100	99	97	96	95	94	92
2	108	103	100	96	106	102	98	95	98	95	93	95	93	91	92	90	88	87
3	103	97	92	88	101	95	91	88	93	89	86	90	87	84	88	85	83	81
4	98	91	86	82	96	90	85	81	88	83	80	85	82	79	83	80	78	77
5	94	86	80	76	92	85	80	76	83	79	75	81	77	74	79	76	74	72
6	90	81	76	72	88	80	75	71	79	74	71	77	73	70	76	72	70	68
7	86	77	71	67	84	76	71	67	75	70	67	74	69	66	72	69	66	64
8	82	73	68	64	81	72	67	64	71	67	63	70	66	63	69	65	62	61
9	78	70	64	60	77	69	64	60	68	63	60	67	63	60	66	62	59	58
10	75	66	61	57	74	66	61	57	65	60	57	64	60	57	63	59	57	55

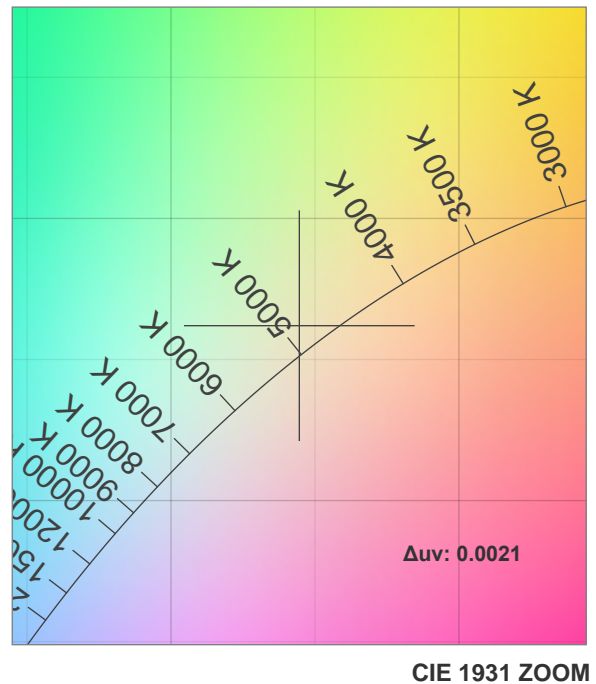
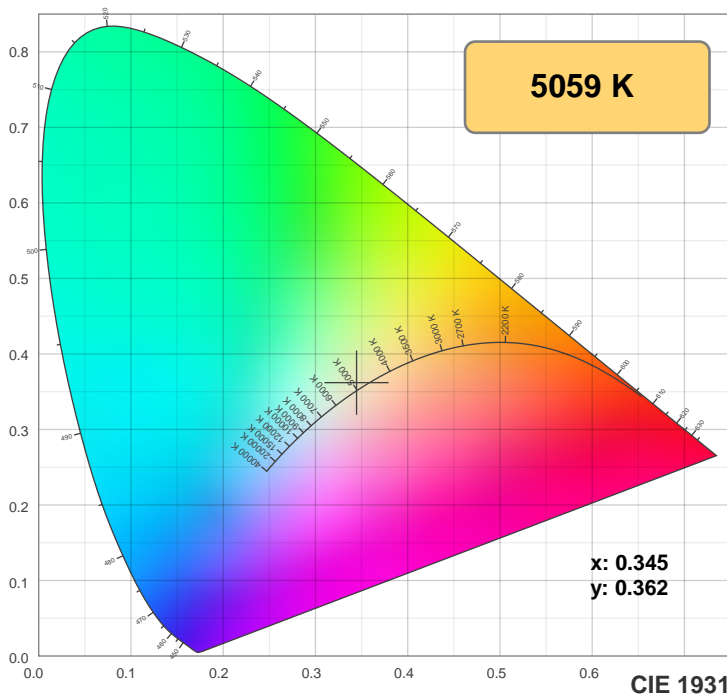
LAMPS (number of lamps)

Luminaire budgetary diagram

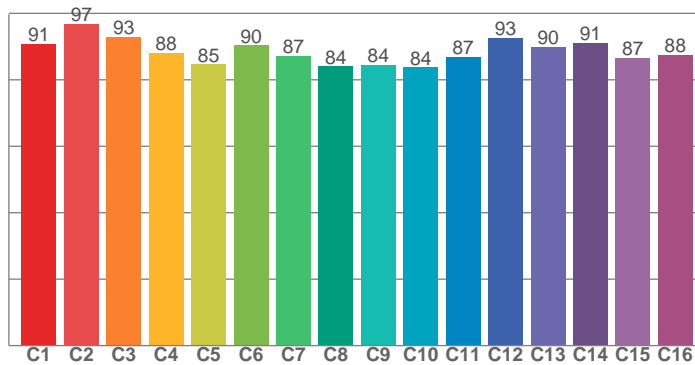


Color details

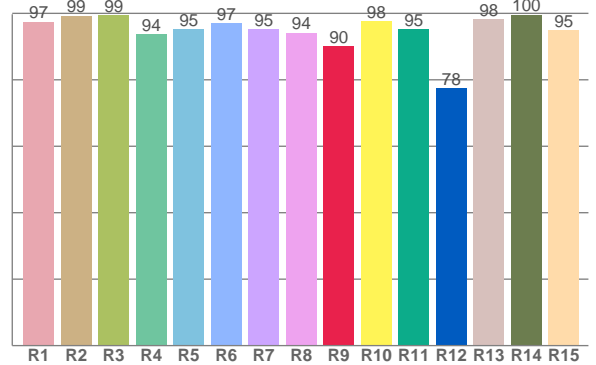
Photometric Testing Report



TM30: 88.5



CRI: 96.4 (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
97.4	99.2	99.4	93.7	95.3	97.1	95.2	94.1	90.1	97.6	95.3	77.5	98.2	99.6	95.0

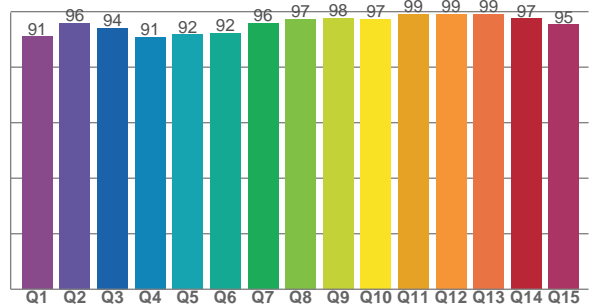
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90.8	96.8	92.9	88.1	84.7	90.4	87.2	84.1	84.5	83.7	86.9	92.7	90.0	91.0	86.7	87.5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
91.0	96.0	94.2	90.8	91.7	92.3	95.8	97.4	97.7	97.3	99.2	99.2	99.2	97.5	95.4

CQS: 94.8



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 deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
5059 K	96.4	90.1	88.5	95.9	94.8	0.345	0.362	0.207	0.326	0.0021

UGR Photometric Testing Report

Glare Evaluation According to UGR

p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	17.1	17.8	17.3	18.0	18.2	17.1	17.8	17.3	18.0	18.2
	3H	17.0	17.6	17.3	17.8	18.1	17.0	17.6	17.3	17.8	18.1
	4H	16.9	17.5	17.2	17.8	18.1	16.9	17.5	17.2	17.8	18.1
	6H	16.9	17.4	17.2	17.7	18.1	16.9	17.4	17.2	17.7	18.1
	8H	16.9	17.4	17.3	17.7	18.1	16.9	17.4	17.3	17.7	18.1
	12H	16.9	17.4	17.3	17.8	18.1	16.9	17.4	17.3	17.8	18.1
4H	2H	16.9	17.5	17.2	17.8	18.1	16.9	17.5	17.2	17.8	18.1
	3H	16.8	17.3	17.2	17.6	18.0	16.8	17.3	17.2	17.6	18.0
	4H	16.8	17.2	17.2	17.5	17.9	16.8	17.2	17.2	17.5	17.9
	6H	16.8	17.1	17.2	17.5	17.9	16.8	17.1	17.2	17.5	17.9
	8H	16.8	17.1	17.3	17.6	18.0	16.8	17.1	17.3	17.6	18.0
	12H	16.9	17.2	17.4	17.6	18.1	16.9	17.2	17.4	17.6	18.1
8H	4H	16.7	17.0	17.1	17.4	17.8	16.7	17.0	17.1	17.4	17.8
	6H	16.7	17.0	17.2	17.4	17.9	16.7	17.0	17.2	17.4	17.9
	8H	16.8	17.0	17.3	17.5	18.0	16.8	17.0	17.3	17.5	18.0
	12H	17.0	17.2	17.5	17.7	18.2	17.0	17.2	17.5	17.7	18.2
12H	4H	16.6	16.9	17.1	17.4	17.8	16.6	16.9	17.1	17.4	17.8
	6H	16.7	16.9	17.2	17.4	17.9	16.7	16.9	17.2	17.4	17.9
	8H	16.9	17.0	17.4	17.5	18.0	16.9	17.0	17.4	17.5	18.0
Variation of the observer position for the luminaire distance S											
S = 1.0H		+3.9 / -4.6					+3.9 / -4.6				
S = 1.5H		+6.5 / -5.7					+6.5 / -5.7				
S = 2.0H		+8.5 / -6.5					+8.5 / -6.5				
Standard table		BK01					BK01				
Correction summand		-1.0					-1.0				
Corrected glare indices referring to 1416 lm total luminous flux											

Due to our continued efforts to improve our products, product specifications are subject to change without notice. Please refer to our website for the latest test results.