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ЕДНА ПОСОКА
МНОГО ВЪЗМОЖНОСТИ
Подготвяне на проекти за изпълнение на мерките 2014-2020

„ИНЖПРОЕКТ“ ООД

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ОБЕКТ: „Въвеждане на последващи мерки по енергийна ефективност за СОУ „Христо Смирненски“ в ПИ с идентификатор 18099.401.1408, ул. „Г.С.Раковски“ №19-25, гр.Гулянци, Община Гулянци, Област Плевен

ЧАСТ: ЕЛ. - Светлотехника

ФАЗА: Работен проект

ВЪЗЛОЖИТЕЛ: Община Гулянци

Проектант:

	КАМАРА НА ИНЖЕНЕРИТЕ В ИНВЕСТИЦИОННОТО ПРОЕКТИРАНЕ
	ПЪЛНА ПРОЕКТАНТСКА ПРАВОСПОСОБНОСТ
Секция: ЕАСТ	Регистрационен № 08007
Части на проекта: по удостоверение за ПП	инж. ПАВЛИНКА АСЕНОВА ТАРЛОВА
	Подпис:
	ВАЖИ С ВАЛИДНО УДОСТОВЕРЕНИЕ ЗА ЦЯЛАТА ТЕКУЩА ГОДИНА

/инж. Павлинка Тарлова /

Управител и
гл. проектант



Възложител

/Лъчезар Яков – Кмет/



СОУ „Христо Смирненски“ – 2018г.

камера на инженерите в инвестиционното проектиране



УДОСТОВЕРЕНИЕ

ЗА ПЪЛНА ПРОЕКТАНТСКА ПРАВОСПОСОБНОСТ

Регистрационен номер № 08007

Важи за 2018 година

ИНЖ. ПАВЛИНКА АСЕНОВА ТАРЛОВА

ОБРАЗОВАТЕЛНО-КВАЛИФИКАЦИОННА СТЕПЕН
МАГИСТЪР

ПРОФЕСИОНАЛНА КВАЛИФИКАЦИЯ

ЕЛЕКТРОИНЖЕНЕР

включен в регистъра на КИИП за лицата с пълна проектантска правоспособност
с протоколно решение на УС на КИИП 12/11.01.2005 г. по части:

ЕЛЕКТРИЧЕСКА

Председател на РК

инж. Г. Кордов



Председател на КР

инж. А. Чирван

Председател на УС на КИИП

инж. Н. Каралов



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COY "Христо Смирненски" / Luminaire parts list

6 Pieces PHILIPS BVP506 GC T35 1xECO198-3S/740 DC

Article No.:

Luminous flux (Luminaire): 17680 lm

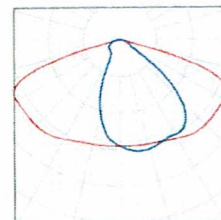
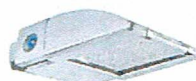
Luminous flux (Lamps): 20800 lm

Luminaire Wattage: 174.0 W

Luminaire classification according to CIE: 100

CIE flux code: 45 81 98 100 85

Fitting: 1 x ECO198-3S/740 (Correction Factor 1.000).



61 Pieces PHILIPS RC480B W30L120 CPC 1xLED35S/830 AC-MLO

Article No.:

Luminous flux (Luminaire): 3500 lm

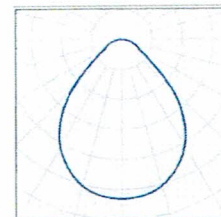
Luminous flux (Lamps): 3500 lm

Luminaire Wattage: 35.0 W

Luminaire classification according to CIE: 100

CIE flux code: 66 90 97 100 100

Fitting: 1 x LED35S/830/- (Correction Factor 1.000).



11 Pieces PHILIPS WL121V LED5S/840

Article No.:

Luminous flux (Luminaire): 0 lm

Luminous flux (Lamps): 0 lm

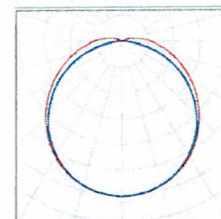
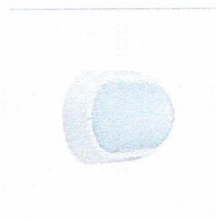
Luminaire Wattage: 0.0 W

Emergency Lighting: 495 lm, 8.0 W

Luminaire classification according to CIE: 96

CIE flux code: 43 73 91 96 99

Fitting: 1 x LED5S/840/- (Correction Factor 1.000).



4 Pieces PHILIPS WT460C L1300 1xLED23S/840 WB

Article No.:

Luminous flux (Luminaire): 2300 lm

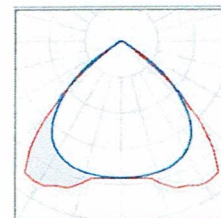
Luminous flux (Lamps): 2300 lm

Luminaire Wattage: 17.4 W

Luminaire classification according to CIE: 100

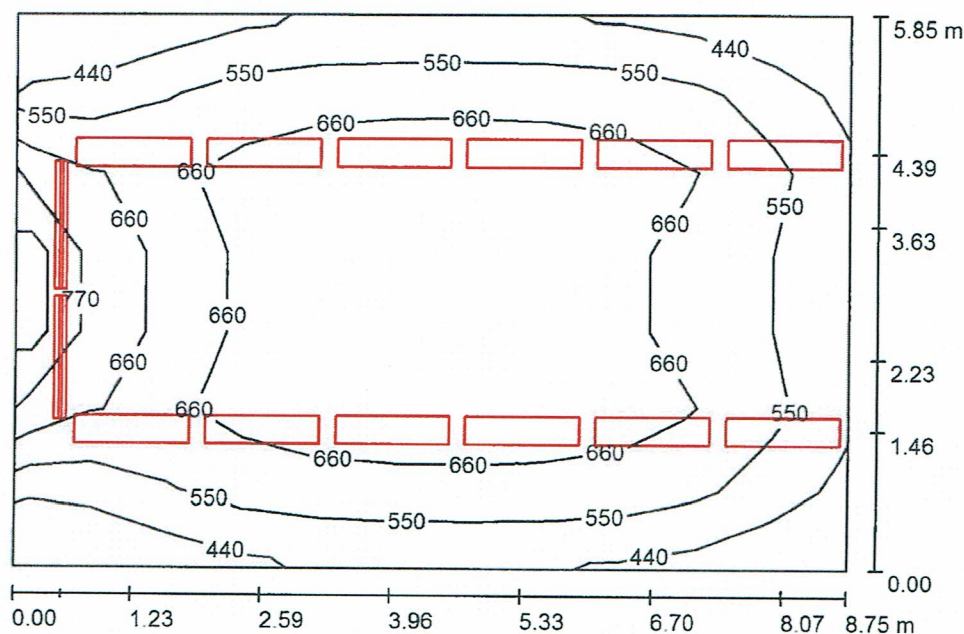
CIE flux code: 63 96 99 100 100

Fitting: 1 x LED23S/840/- (Correction Factor 1.000).



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Класна стая - тип 1 / Summary



Height of Room: 3.300 m, Maintenance factor: 0.80

Values in Lux, Scale 1:76

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	619	359	892	0.580
Floor	20	545	314	690	0.577
Ceiling	70	120	82	150	0.684
Walls (4)	50	266	95	1803	/

Workplane:

Height: 0.850 m
Grid: 11 x 7 Points
Boundary Zone: 0.000 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.433, Ceiling / Working Plane: 0.195.

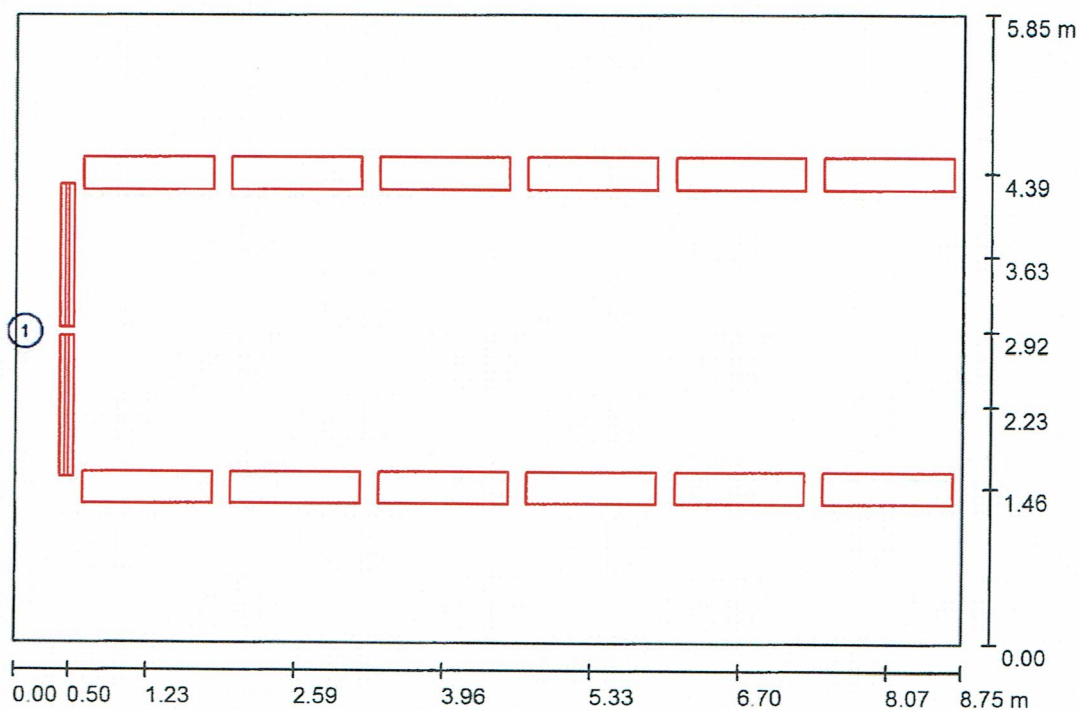
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	12	PHILIPS RC480B W30L120 CPC 1xLED35S/830 AC-MLO (1.000)	3500	3500	35.0
2	2	PHILIPS WT460C L1300 1xLED23S/840 WB (1.000)	2300	2300	17.4
Total:			46600	46600	454.8

Specific connected load: $8.88 \text{ W/m}^2 = 1.44 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 51.19 m^2)

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Класна стая - тип 1 / Calculation points (results overview)



Scale 1 : 67

Calculation Points List

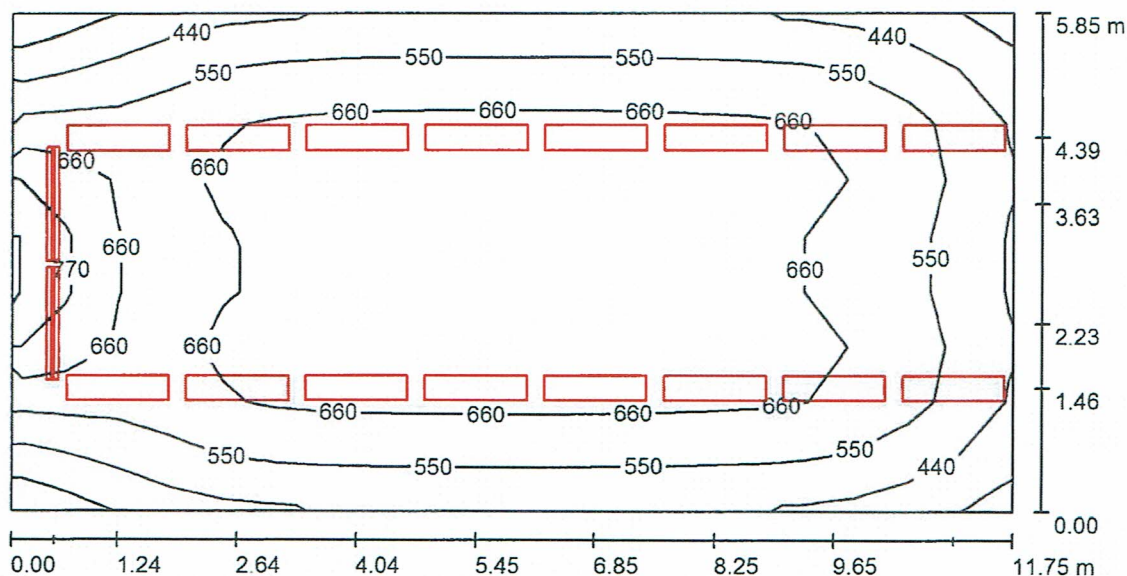
No.	Designation	Type	Position [m]			Rotation [°]			Value [lx]
			X	Y	Z	X	Y	Z	
1	Vertical Calculation Point 1	vertical, normal	0.000	2.925	1.500	0.0	0.0	0.0	532

Summary of Results

Calculation Point Types	Quantity	Average [lx]	Min [lx]	Max [lx]	u0	E_{min} / E_{max}
Vertical, normal	1	532	532	532	1.00	1.00

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Класна стая - тип 2 / Summary



Height of Room: 3.300 m, Maintenance factor: 0.80

Values in Lux, Scale 1:85

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	608	318	852	0.524
Floor	20	545	304	678	0.557
Ceiling	70	121	95	185	0.781
Walls (4)	50	269	107	1815	/

Workplane:

Height: 0.850 m
Grid: 19 x 9 Points
Boundary Zone: 0.000 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.445, Ceiling / Working Plane: 0.199.

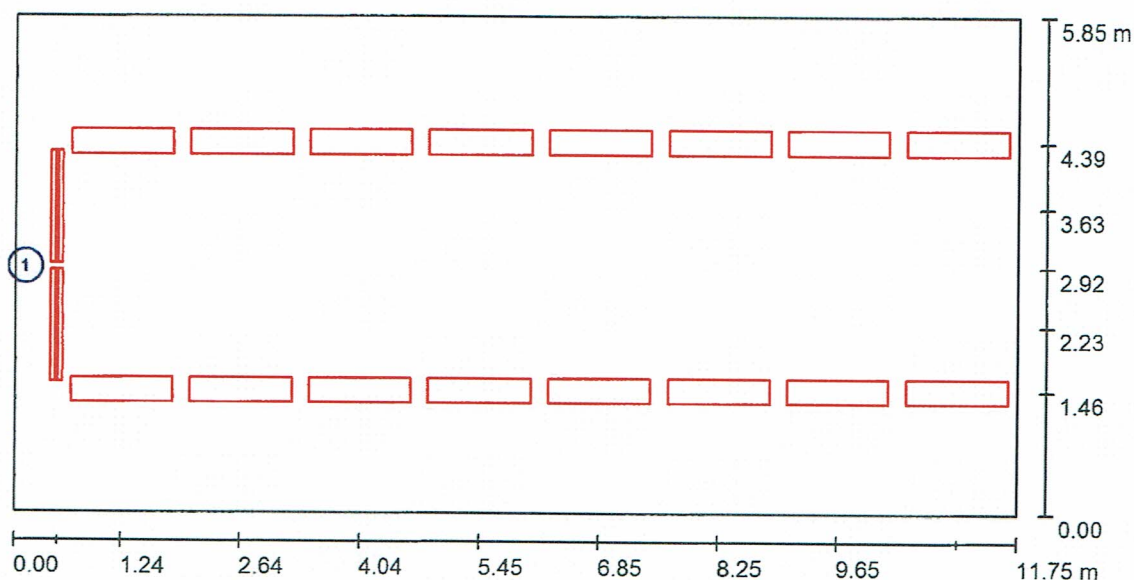
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	16	PHILIPS RC480B W30L120 CPC 1xLED35S/830 AC-MLO (1.000)	3500	3500	35.0
2	2	PHILIPS WT460C L1300 1xLED23S/840 WB (1.000)	2300	2300	17.4
Total:			60600	60600	594.8

Specific connected load: $8.65 \text{ W/m}^2 = 1.42 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 68.74 m^2)

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Класна стая - тип 2 / Calculation points (results overview)



Scale 1 : 85

Calculation Points List

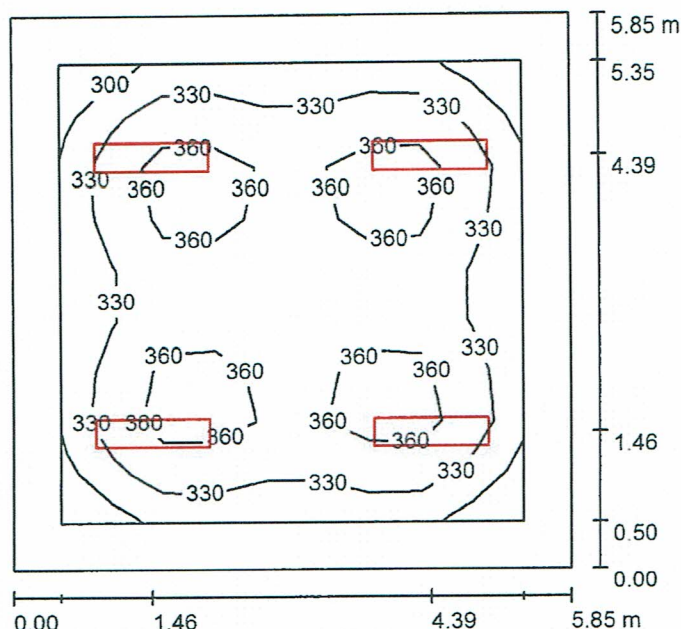
No.	Designation	Type	Position [m]			Rotation [°]			Value [lx]
			X	Y	Z	X	Y	Z	
1	Vertical Calculation Point 1	vertical, normal	0.000	2.925	1.500	0.0	0.0	0.0	540

Summary of Results

Calculation Point Types	Quantity	Average [lx]	Min [lx]	Max [lx]	u0	E_{min} / E_{max}
Vertical, normal	1	540	540	540	1.00	1.00

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Кабинет - тип 1 / Summary



Height of Room: 3.300 m, Mounting Height: 3.436 m, Maintenance factor: 0.80

Values in Lux, Scale 1:76

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	342	281	383	0.823
Floor	50	278	173	335	0.621
Ceiling	70	114	83	126	0.723
Walls (4)	60	170	96	232	/

Workplane:

Height: 0.850 m
Grid: 9 x 9 Points
Boundary Zone: 0.500 m

UGR

Left Wall
Lower Wall
(CIE, SHR = 1.00.)

Lengthways-

14
14

Across

14
14

to luminaire axis

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.487, Ceiling / Working Plane: 0.334.

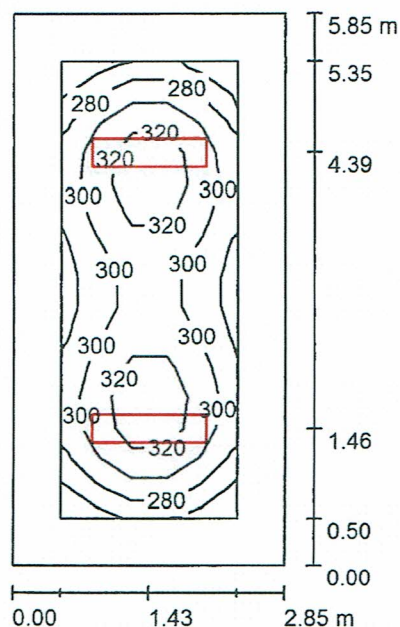
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	PHILIPS RC480B W30L120 CPC 1xLED35S/830 AC-MLO (1.000)	3500	3500	35.0
Total:			14000	14000	140.0

Specific connected load: $4.09 \text{ W/m}^2 = 1.20 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 34.22 m^2)

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Кабинет - тип 2 / Summary



Height of Room: 3.300 m, Mounting Height: 3.436 m, Maintenance factor: 0.80

Values in Lux, Scale 1:76

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	302	258	339	0.855
Floor	50	221	149	259	0.674
Ceiling	70	89	67	100	0.753
Walls (4)	60	144	72	211	/

Workplane:

Height: 0.850 m
Grid: 15 x 5 Points
Boundary Zone: 0.500 m

UGR

Left Wall
Lower Wall
(CIE, SHR = 1.00.)

Lengthways-

12
14

Across

12
14

to luminaire axis

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.476, Ceiling / Working Plane: 0.296.

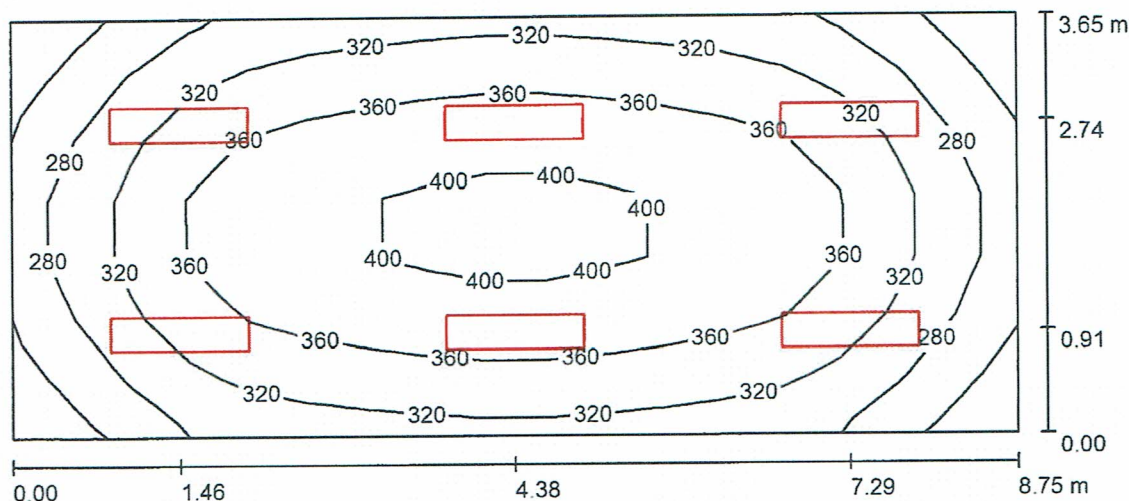
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	PHILIPS RC480B W30L120 CPC 1xLED35S/830 AC-MLO (1.000)	3500	3500	35.0
Total:			7000	7000	70.0

Specific connected load: $4.20 \text{ W/m}^2 = 1.39 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 16.67 m^2)

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Фойе - главен вход / Summary



Height of Room: 3.300 m, Mounting Height: 3.436 m, Maintenance factor: 0.80

Values in Lux, Scale 1:63

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	335	219	415	0.654
Floor	20	336	203	415	0.604
Ceiling	70	80	62	88	0.777
Walls (4)	50	178	72	334	/

Workplane:

Height: 0.000 m
Grid: 17 x 7 Points
Boundary Zone: 0.000 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.534, Ceiling / Working Plane: 0.239.

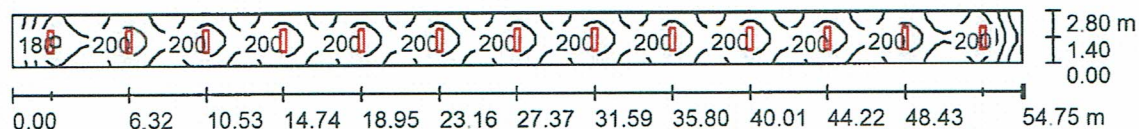
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	6	PHILIPS RC480B W30L120 CPC 1xLED35S/830 AC-MLO (1.000)	3500	3500	35.0
Total:			21000	21000	210.0

Specific connected load: $6.58 \text{ W/m}^2 = 1.96 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 31.94 m^2)

Operator
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Коридор - главен / Summary



Height of Room: 3.300 m, Mounting Height: 3.436 m, Maintenance factor: 0.80

Values in Lux, Scale 1:392

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	188	120	220	0.640
Floor	50	188	122	220	0.650
Ceiling	70	78	54	95	0.701
Walls (4)	60	120	61	199	/

Workplane:

Height: 0.000 m
Grid: 117 x 7 Points
Boundary Zone: 0.000 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.645, Ceiling / Working Plane: 0.413.

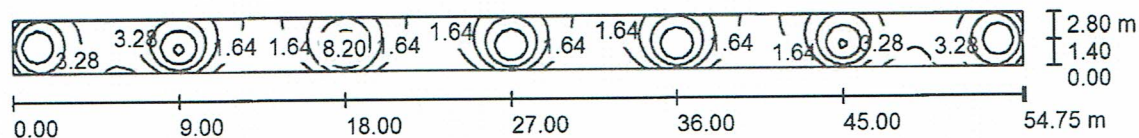
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	13	PHILIPS RC480B W30L120 CPC 1xLED35S/830 AC-MLO (1.000)	3500	3500	35.0
Total:			45500	45500	455.0

Specific connected load: $2.97 \text{ W/m}^2 = 1.59 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 153.30 m^2)

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Коридор - главен /Евакуационно осв./ / Light scene 1 / Summary



Height of Room: 3.300 m, Mounting Height: 2.200 m, Maintenance factor: 0.80

Values in Lux, Scale 1:392

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0
Workplane	/	3.44	0.36	8.54	0.105
Floor	50	3.44	0.36	8.53	0.105
Ceiling	70	5.57	0.14	33	0.025
Walls (4)	60	3.71	0.03	24	/

Workplane:

Height: 0.000 m
Grid: 128 x 32 Points
Boundary Zone: 0.000 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

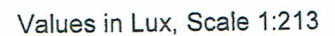
Illuminance Quotient (according to LG7): Walls / Working Plane: 1.086, Ceiling / Working Plane: 1.614.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	7	PHILIPS WL121V LED5S/840 (1.000)	495	500	8.0
Total:			3465	3500	56.0

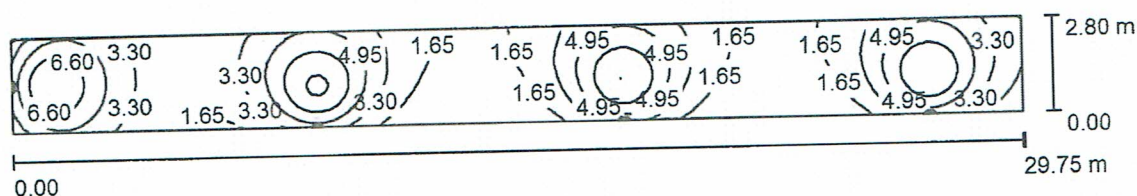
Specific connected load: $0.37 \text{ W/m}^2 = 10.62 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 153.30 m^2)

Коридор 2 / Summary



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Коридор 2 / Евакуационно осв. / Light scene 1 / Summary



Height of Room: 3.300 m, Mounting Height: 2.200 m, Maintenance factor:
0.80

Values in Lux, Scale 1:213

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	3.58	0.35	8.61	0.097
Floor	50	3.58	0.35	8.62	0.097
Ceiling	70	5.77	0.13	33	0.023
Walls (4)	60	3.78	0.01	24	/

Workplane:

Height: 0.000 m
Grid: 128 x 16 Points
Boundary Zone: 0.000 m

Emergency lighting scene (EN 1838):

Only direct light is calculated. Contributions of reflected light are ignored.

Illuminance Quotient (according to LG7): Walls / Working Plane: 1.068, Ceiling / Working Plane: 1.637.

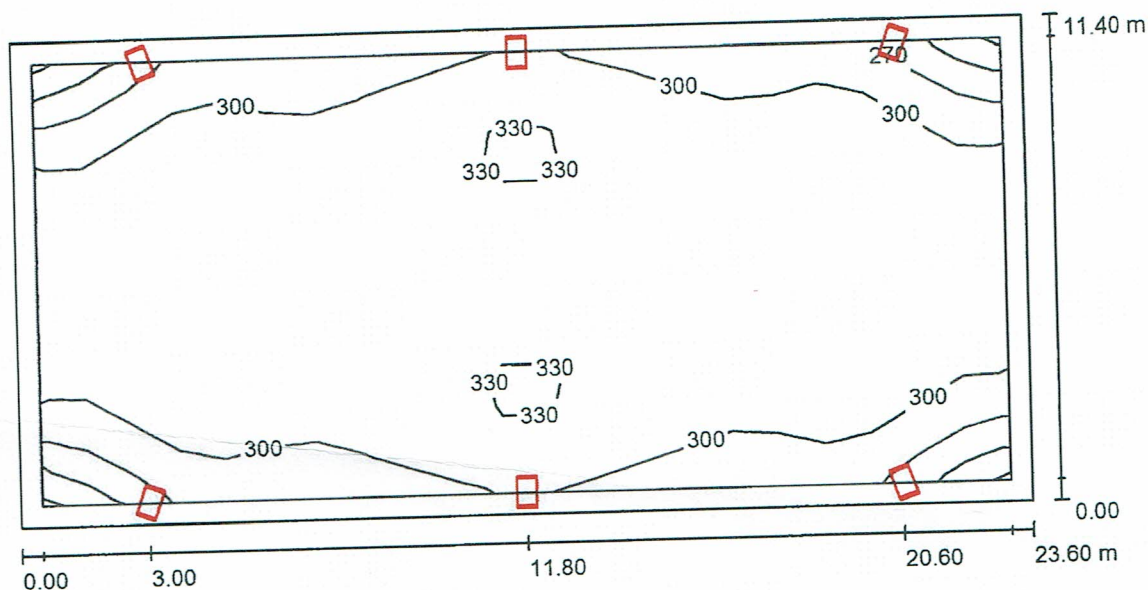
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	PHILIPS WL121V LED5S/840 (1.000)	495	500	8.0
Total:			1980	2000	32.0

Specific connected load: $0.38 \text{ W/m}^2 = 10.72 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 83.30 m^2)

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e-Mail

Физкультурен салон / Summary



Height of Room: 6.100 m, Maintenance factor: 0.80

Values in Lux, Scale 1:169

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$
Workplane	/	306	197	337	0.645
Floor	50	297	169	341	0.568
Ceiling	70	134	97	149	0.725
Walls (4)	60	197	93	684	/

Workplane:

Height: 0.000 m
Grid: 21 x 11 Points
Boundary Zone: 0.500 m

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.643, Ceiling / Working Plane: 0.437.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	6	PHILIPS BVP506 GC T35 1xEco198-3S/740 DC (1.000)	17680	20800	174.0
Total:			106080	124800	1044.0

Specific connected load: $3.88 \text{ W/m}^2 = 1.27 \text{ W/m}^2/100 \text{ lx}$ (Ground area: 269.04 m^2)