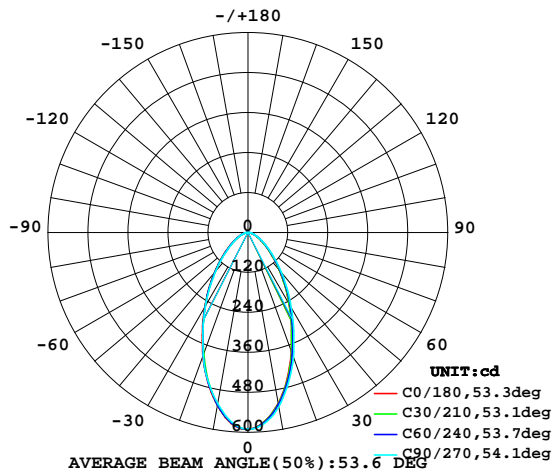


LUMINAIRE PHOTOMETRIC TEST REPORT

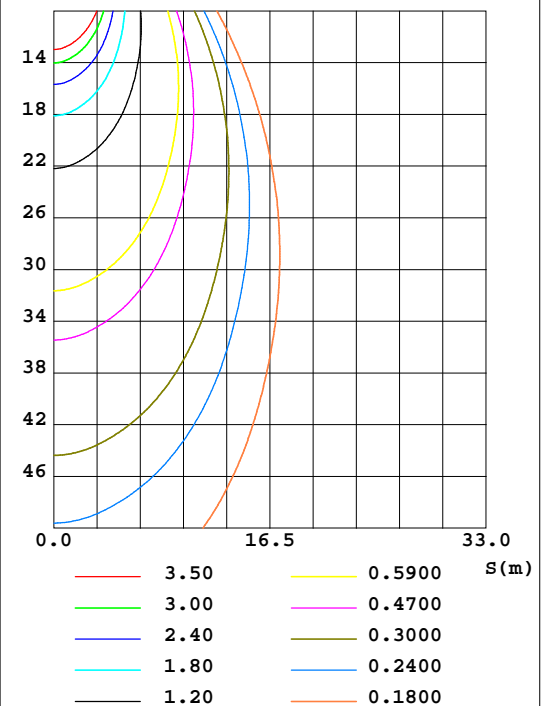
NAME: 5RS128	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:002
MFR.: Lediant	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 100.26 lm/W			
MODEL	3100K	Imax(cd)	590.5	S/MH(C0/180)	0.78
NOMINAL POWER(W)	7	LOR(%)	100.0	S/MH(C90/270)	0.80
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	646.12	h UP,DN(C0-180)	0.1,50.0
NOMINAL FLUX(lm)	646.115	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.1,49.7
LAMPS INSIDE	1	h up(%)	0.2	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	230.4	h down(%)	99.8	CIBSE SHR MAX	0.90

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2019-06-03

g Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.279
Humidity:65.0%
Test Distance:8.989m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	521.0	523.9	531.6	531.0	527.8	526.5	522.5	520.6	0- 10	53.13	53.13	8.22,8.22
20	380.2	385.8	400.0	398.0	396.8	392.0	393.0	383.8	10- 20	128.7	181.8	28.1,28.1
30	247.0	251.0	261.0	261.3	261.0	258.6	256.1	249.9	20- 30	146.2	328.0	50.8,50.8
40	145.8	149.0	156.4	156.6	156.7	155.0	150.2	146.6	30- 40	125.0	453.0	70.1,70.1
50	79.13	81.56	86.86	85.99	86.30	83.87	81.16	78.24	40- 50	87.91	540.9	83.7,83.7
60	41.36	42.78	45.78	44.80	44.98	43.29	42.40	40.50	50- 60	54.34	595.3	92.1,92.1
70	20.51	21.06	22.05	21.82	21.93	21.26	20.81	20.22	60- 70	30.69	626.0	96.9,96.9
80	7.913	8.111	8.240	8.358	8.446	8.181	7.892	7.821	70- 80	14.90	640.9	99.2,99.2
90	0.0449	0.0383	0.0318	0.0384	0.0381	0.0383	0.0450	0.0352	80- 90	3.628	644.5	99.8,99.8
100	0.0572	0.0509	0.0572	0.0509	0.0446	0.0509	0.0572	0.0573	90-100	0.0428	644.5	99.8,99.8
110	0.0827	0.0896	0.0929	0.0764	0.0890	0.0891	0.0827	0.0859	100-110	0.0737	644.6	99.8,99.8
120	0.1271	0.1367	0.1527	0.1331	0.1590	0.1336	0.1145	0.1432	110-120	0.1047	644.7	99.8,99.8
130	0.2288	0.2480	0.2481	0.2322	0.2481	0.2353	0.2288	0.2513	120-130	0.1666	644.9	99.8,99.8
140	0.3942	0.4007	0.4199	0.3882	0.4008	0.3943	0.3689	0.4042	130-140	0.2435	645.1	99.8,99.8
150	0.5850	0.6009	0.6106	0.5823	0.5852	0.5977	0.5725	0.6046	140-150	0.3081	645.4	99.9,99.9
160	0.8013	0.8140	0.8270	0.8019	0.8079	0.7982	0.7950	0.8178	150-160	0.3221	645.8	99.9,99.9
170	0.9793	0.9952	0.9986	0.9863	0.9921	0.9824	0.9794	0.9896	160-170	0.2541	646.0	100,100
180	1.075	1.062	1.062	1.060	1.068	1.068	1.056	1.066	170-180	0.0973	646.1	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

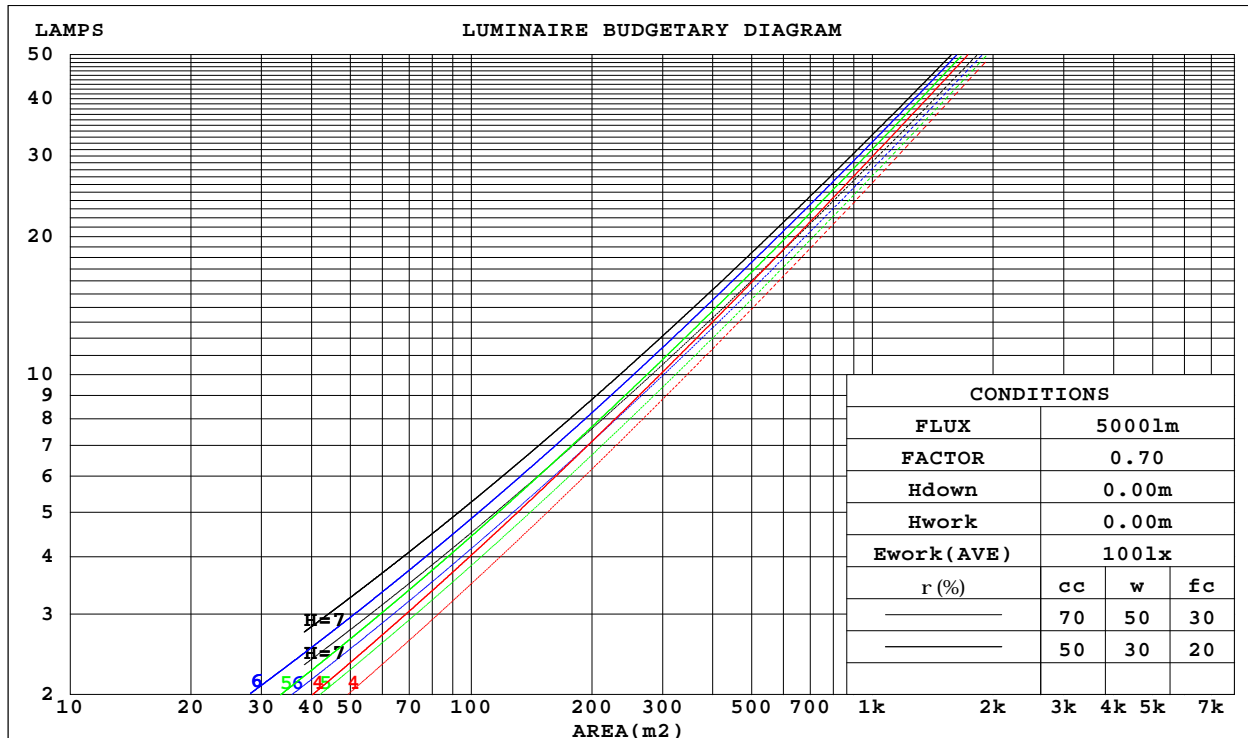
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-06-03

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.279
 Humidity:65.0%
 Test Distance:8.989m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: 5RS128	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:002
MFR.: Lediant	SUR.:	PROTECTION ANGLE:

r _{cc}	80%			70%			50%			30%			10%			0
r _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.08	1.05	1.02	1.06	1.03	1.00	1.02	.99	.97	.98	.96	.94	.94	.93	.91	.90
2.0	.98	.93	.89	.96	.91	.87	.93	.89	.85	.90	.86	.84	.87	.84	.82	.80
3.0	.89	.83	.78	.88	.82	.77	.85	.80	.76	.82	.78	.75	.80	.76	.73	.72
4.0	.82	.75	.70	.80	.74	.69	.78	.73	.68	.76	.71	.67	.74	.70	.66	.65
5.0	.75	.68	.63	.74	.67	.62	.72	.66	.62	.70	.65	.61	.69	.64	.60	.59
6.0	.69	.62	.57	.68	.62	.57	.67	.61	.56	.65	.60	.56	.64	.59	.55	.54
7.0	.64	.57	.52	.64	.57	.52	.62	.56	.52	.61	.55	.51	.60	.55	.51	.49
8.0	.60	.53	.48	.59	.53	.48	.58	.52	.48	.57	.51	.47	.56	.51	.47	.46
9.0	.56	.49	.44	.55	.49	.44	.54	.48	.44	.53	.48	.44	.53	.47	.44	.42
10.0	.53	.46	.41	.52	.46	.41	.51	.45	.41	.50	.45	.41	.49	.44	.41	.39



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2019-06-03

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.279
Humidity:65.0%
Test Distance:8.989m [K=1.0000]
Remarks:

WEC AND CCEC

NAME: 5RS128	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:002
MFR.: Lediand	SUR.:	PROTECTION ANGLE:

rcc	80%	70%	50%	30%	10%	0
rw	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
rfe	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio Wall Exitance Coefficients(WEC)					
0.0						
1.0	.228 .130 .041	.221 .126 .040	.208 .119 .038	.196 .113 .036	.185 .107 .035	
2.0	.219 .120 .037	.213 .117 .036	.201 .112 .035	.191 .107 .034	.182 .103 .032	
3.0	.206 .110 .033	.201 .108 .032	.191 .104 .032	.182 .100 .031	.174 .096 .030	
4.0	.194 .101 .030	.189 .099 .029	.181 .096 .029	.173 .093 .028	.166 .090 .027	
5.0	.182 .093 .027	.178 .092 .027	.171 .089 .026	.164 .087 .026	.158 .084 .025	
6.0	.172 .086 .025	.168 .085 .024	.162 .083 .024	.156 .081 .024	.150 .079 .023	
7.0	.162 .080 .023	.159 .079 .023	.153 .077 .022	.148 .076 .022	.142 .074 .022	
8.0	.153 .075 .021	.151 .074 .021	.145 .073 .021	.140 .071 .021	.136 .070 .020	
9.0	.145 .070 .020	.143 .070 .020	.138 .068 .019	.134 .067 .019	.129 .066 .019	
10.0	.138 .066 .018	.136 .066 .018	.132 .064 .018	.128 .063 .018	.124 .062 .018	

rcc	80%	70%	50%	30%	10%	0
rw	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
rfe	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio Ceiling Cavity Exitance Coefficients(CCEC)					
0.0	.192 .192 .192	.164 .164 .164	.112 .112 .112	.064 .064 .064	.021 .021 .021	
1.0	.177 .159 .143	.151 .136 .123	.103 .094 .085	.059 .054 .049	.019 .017 .016	
2.0	.164 .134 .109	.141 .116 .094	.096 .080 .066	.056 .046 .038	.018 .015 .013	
3.0	.154 .116 .085	.132 .100 .074	.091 .069 .052	.052 .041 .031	.017 .013 .010	
4.0	.145 .102 .068	.125 .088 .059	.086 .061 .042	.050 .036 .025	.016 .012 .008	
5.0	.137 .091 .056	.118 .078 .049	.081 .055 .035	.047 .032 .020	.015 .010 .007	
6.0	.130 .082 .047	.112 .071 .041	.077 .050 .029	.045 .029 .017	.014 .010 .006	
7.0	.124 .075 .040	.106 .065 .035	.073 .045 .025	.043 .027 .015	.014 .009 .005	
8.0	.118 .069 .035	.101 .059 .030	.070 .042 .022	.041 .025 .013	.013 .008 .004	
9.0	.112 .063 .031	.097 .055 .027	.067 .039 .019	.039 .023 .011	.013 .008 .004	
10.0	.107 .059 .027	.092 .051 .024	.064 .036 .017	.037 .021 .010	.012 .007 .003	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2019-06-03

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.279
Humidity:65.0%
Test Distance:8.989m [K=1.0000]
Remarks:

Uncorrected UGR Table

NAME: 5RS128					TYPE:					WEIGHT:				
SPEC.:					DIM.:					SERIAL No.:002				
MFR.: Lediant					SUR.:					PROTECTION ANGLE:				
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3				
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3				
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2				
Room dimensions					Viewed crosswise					Viewed endwise				
x = 2H y = 2H	2H	26.5	27.7	26.7	27.9	28.1	26.9	28.1	27.2	28.3	28.5			
	3H	27.1	28.2	27.4	28.4	28.6	27.5	28.6	27.8	28.8	29.0			
	4H	27.3	28.4	27.6	28.6	28.8	27.7	28.8	28.0	29.0	29.2			
	6H	27.5	28.4	27.8	28.7	29.0	27.9	28.8	28.2	29.1	29.4			
	8H	27.5	28.4	27.8	28.7	29.0	27.9	28.8	28.2	29.1	29.4			
	12H	27.5	28.4	27.9	28.7	29.0	27.9	28.8	28.3	29.1	29.4			
4H	2H	26.7	27.8	27.0	28.0	28.3	27.1	28.1	27.4	28.4	28.6			
	3H	27.5	28.4	27.8	28.7	29.0	27.8	28.7	28.2	29.0	29.3			
	4H	27.8	28.6	28.2	29.0	29.3	28.2	29.0	28.5	29.3	29.6			
	6H	28.1	28.8	28.5	29.1	29.5	28.4	29.1	28.8	29.5	29.8			
	8H	28.2	28.8	28.6	29.2	29.6	28.5	29.2	28.9	29.5	29.9			
	12H	28.2	28.8	28.6	29.2	29.6	28.5	29.1	29.0	29.5	29.9			
8H	4H	27.9	28.6	28.3	29.0	29.3	28.2	28.9	28.6	29.3	29.6			
	6H	28.3	28.8	28.7	29.2	29.7	28.6	29.1	29.0	29.5	30.0			
	8H	28.4	28.9	28.9	29.3	29.8	28.7	29.2	29.2	29.6	30.1			
	12H	28.5	28.9	29.0	29.4	29.9	28.8	29.2	29.3	29.7	30.1			
12H	4H	27.9	28.5	28.3	28.9	29.3	28.2	28.8	28.6	29.2	29.6			
	6H	28.3	28.8	28.7	29.2	29.7	28.6	29.1	29.0	29.5	29.9			
	8H	28.5	28.9	28.9	29.3	29.8	28.7	29.2	29.2	29.6	30.1			
Variations with the observer position at spacings:														
S = 1.0H		+ 0.6 / - 0.8					+ 0.6 / - 0.7							
1.5H		+ 0.6 / - 0.5					+ 0.5 / - 0.4							
2.0H		+ 1.2 / - 0.9					+ 1.2 / - 1.0							

CIE Pub.117 Corrected 646.1 lm Total Lamp Luminous Flux.(8log(F/F0) = -1.5)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2019-06-03

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.279
Humidity:65.0%
Test Distance:8.989m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

NAME: 5RS128	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:002
MFR.: Lediant	SUR.:	PROTECTION ANGLE:

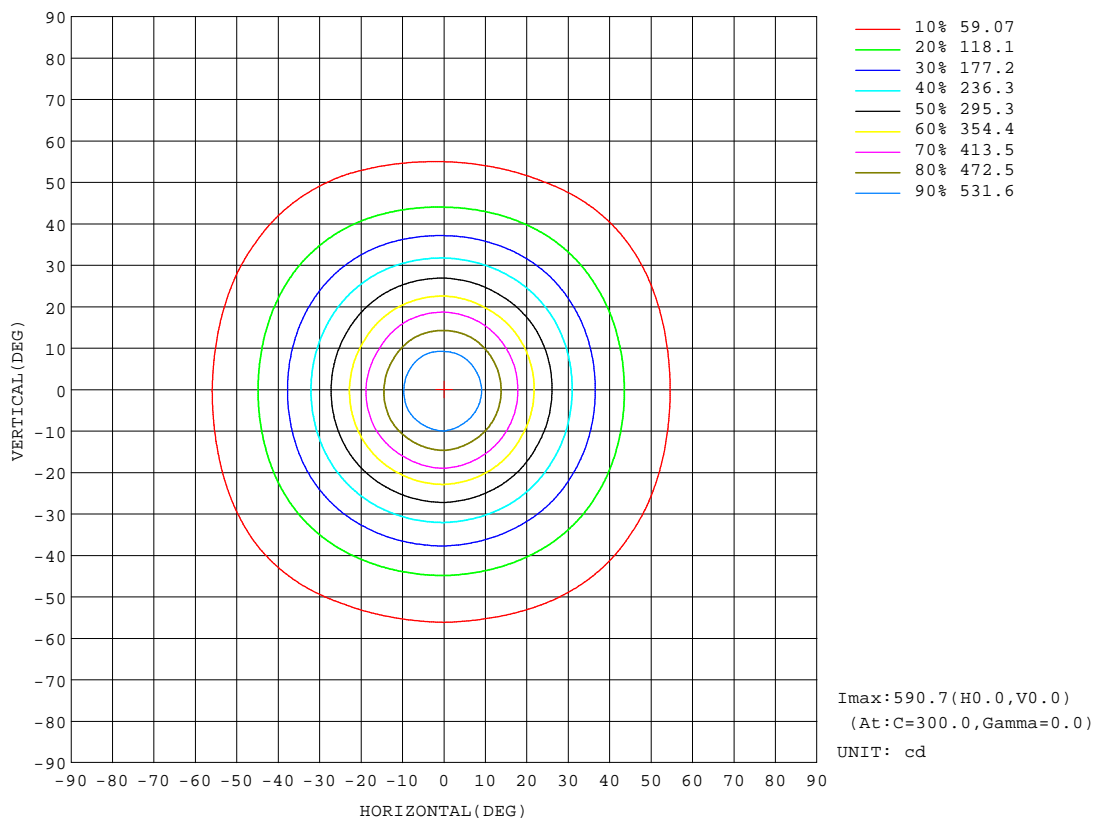
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	73	64	59	72	64	58	71	63	58	53
0.80	82	73	68	81	73	68	80	72	67	62
1.00	89	81	75	88	80	75	86	81	74	69
1.25	94	87	82	93	86	81	91	85	80	75
1.50	98	91	86	97	90	86	94	89	85	79
2.00	103	97	92	101	96	91	98	94	90	84
2.50	105	100	96	104	99	95	100	96	93	86
3.00	108	103	99	106	101	98	102	99	96	88
4.00	111	107	103	108	105	102	104	102	99	91
5.00	112	109	106	110	107	104	106	103	101	93
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-06-03

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.279
 Humidity:65.0%
 Test Distance:8.989m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

NAME: 5RS128	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:002
MFR.: Lediand	SUR.:	PROTECTION ANGLE:

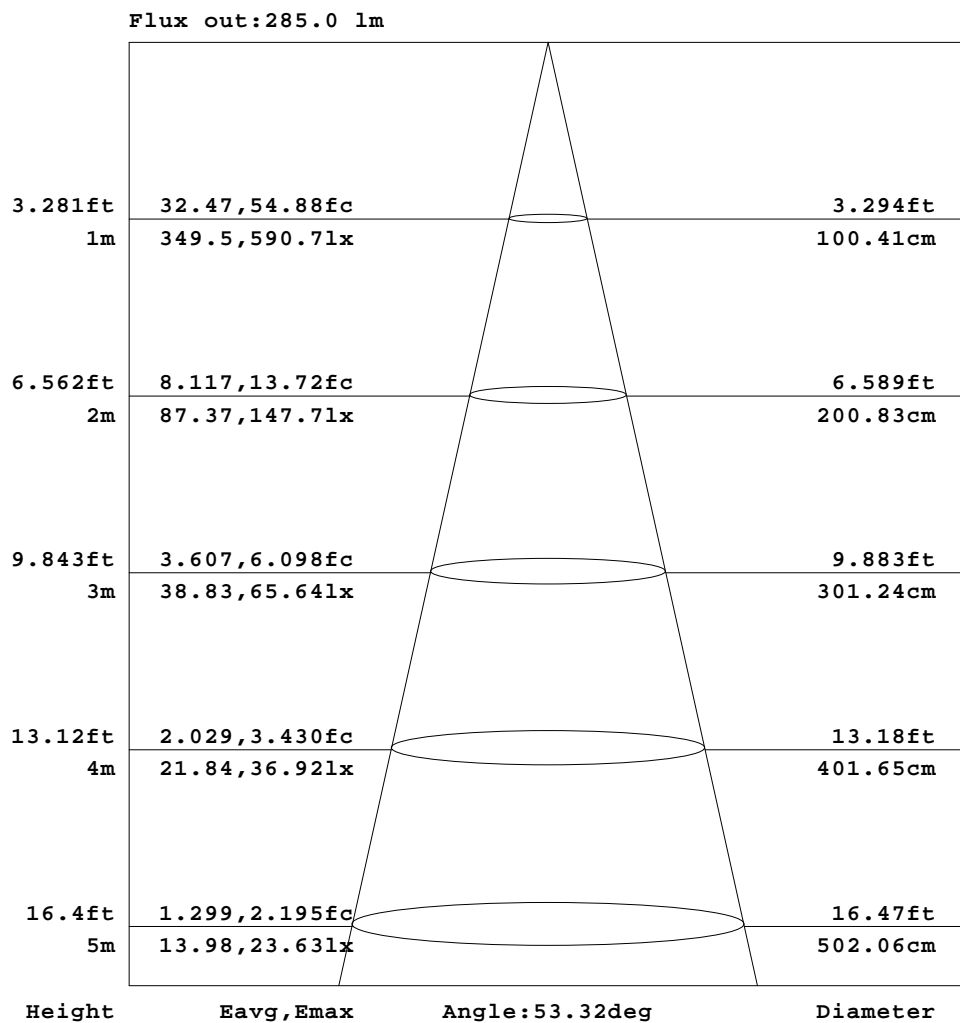


C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2019-06-03

deg Range: 0 - 180DEG
Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.279
Humidity: 65.0%
Test Distance: 8.989m [K=1.0000]
Remarks:

AAI Figure

NAME: 5RS128	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:002
MFR.: Lediand	SUR.:	PROTECTION ANGLE:



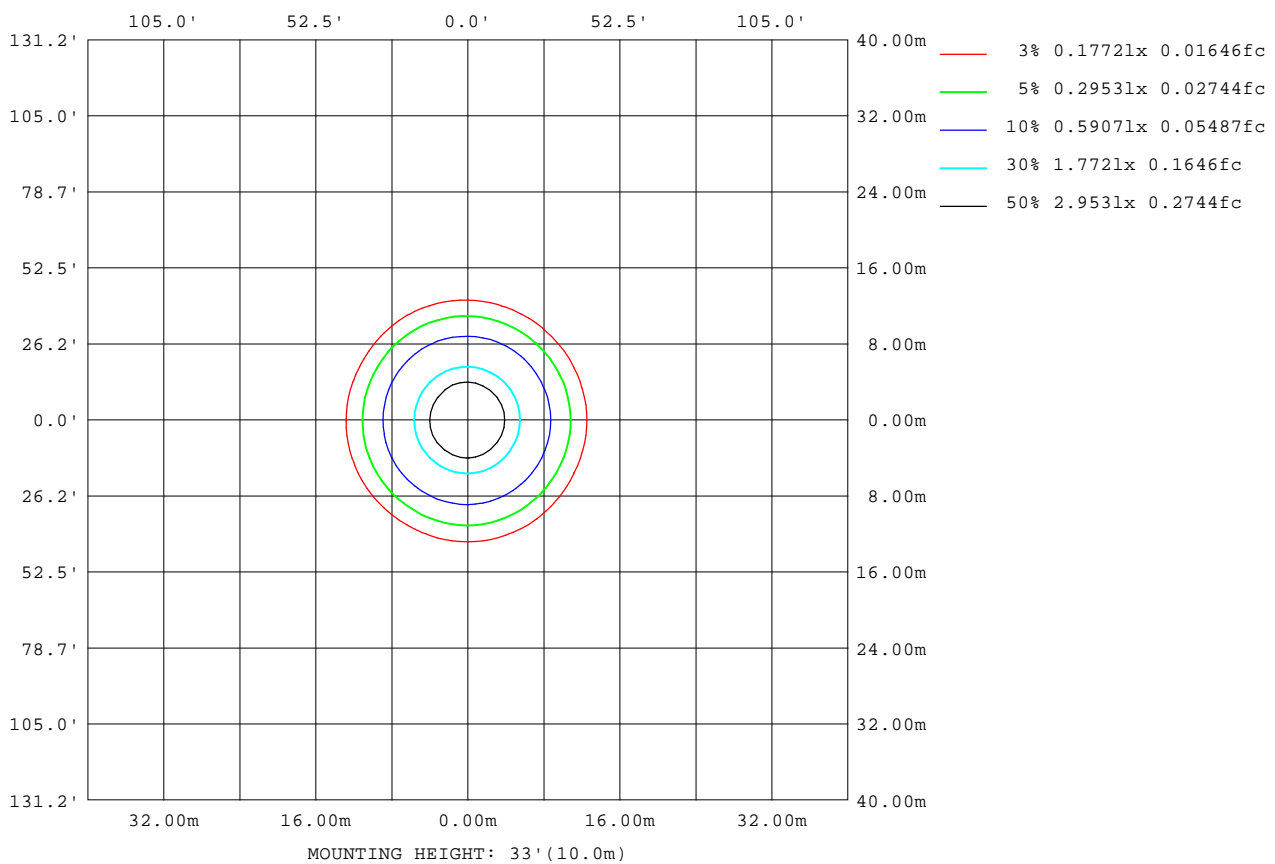
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2019-06-03

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.279
Humidity:65.0%
Test Distance:8.989m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

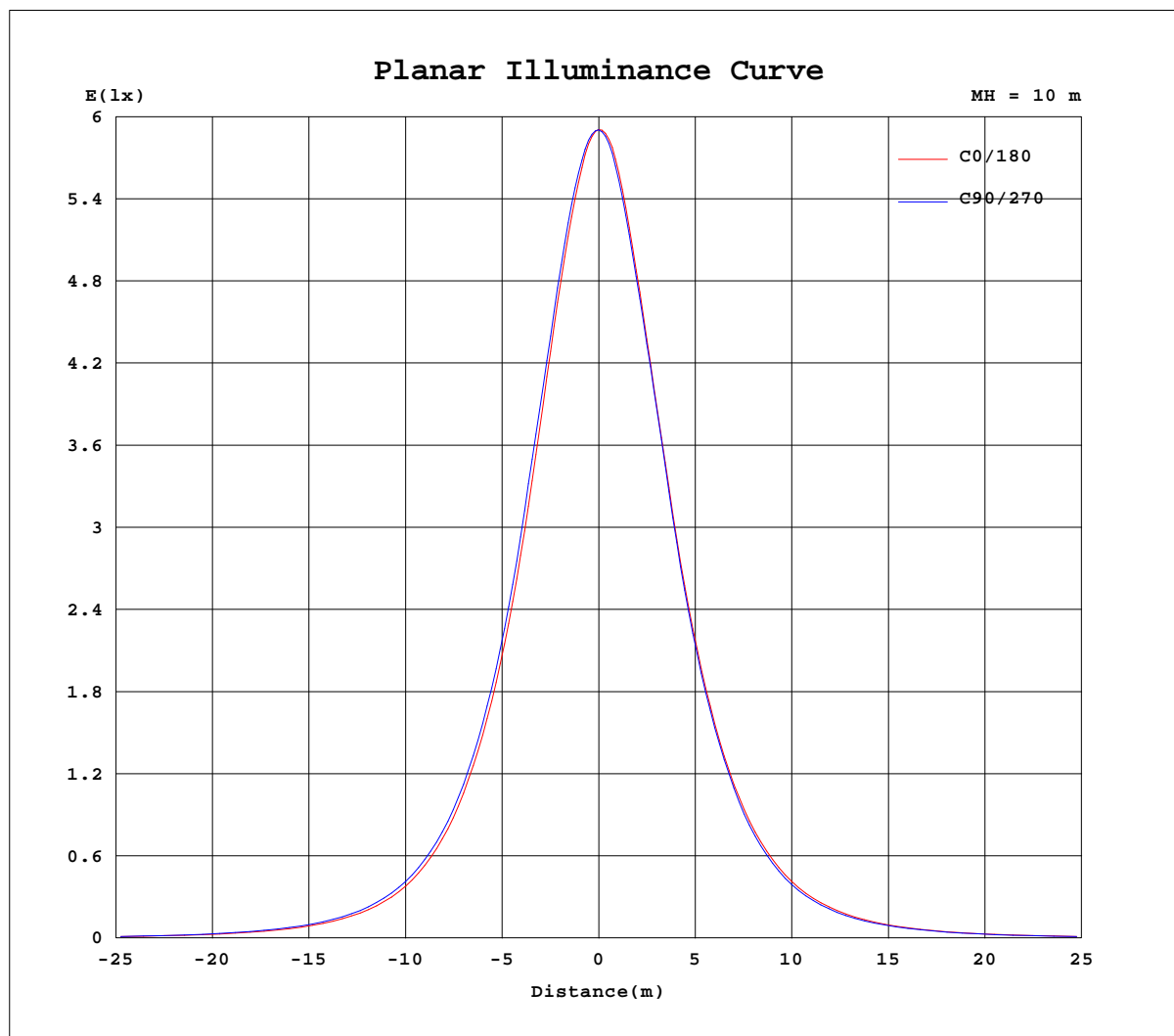
NAME: 5RS128	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:002
MFR.: Lediand	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2019-06-03

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.279
Humidity: 65.0%
Test Distance: 8.989m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2019-06-03

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.279
Humidity: 65.0%
Test Distance: 8.989m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 5RS128	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:002
MFR.: Lediant	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(°) g (°)	0	30	60	90	120	150	180	210	240	270	300	330						
0	591	591	591	591	591	591	591	591	591	591	591	591						
5	569	570	572	575	575	577	576	574	574	571	569	568						
10	521	523	525	532	530	532	528	527	526	522	522	519						
15	455	458	462	468	467	470	466	462	464	463	461	456						
20	380	382	390	400	396	400	397	389	395	393	386	382						
25	309	309	317	325	324	326	324	320	322	320	312	311						
30	247	248	254	261	261	262	261	258	259	256	251	249						
35	193	193	199	205	206	206	205	204	203	200	195	194						
40	146	147	151	156	156	157	157	155	155	150	148	146						
45	108	109	113	117	117	118	117	116	115	111	109	107						
50	79.1	79.1	84.0	86.9	85.5	86.5	86.3	83.6	84.2	81.2	78.5	78.0						
55	57.6	57.5	61.2	63.6	61.5	63.0	62.7	59.5	61.0	58.9	55.8	56.6						
60	41.4	41.7	43.9	45.8	44.3	45.3	45.0	42.6	43.9	42.4	40.4	40.6						
65	29.4	29.7	31.0	32.1	31.3	31.8	31.8	30.3	31.2	30.0	28.9	28.9						
70	20.5	20.7	21.4	22.0	21.7	22.0	21.9	21.0	21.5	20.8	20.3	20.2						
75	13.5	13.7	13.9	14.2	14.1	14.4	14.4	13.8	14.1	13.6	13.4	13.3						
80	7.91	8.12	8.10	8.24	8.30	8.42	8.45	8.14	8.22	7.89	7.89	7.75						
85	3.04	3.20	3.09	3.31	3.35	3.54	3.59	3.28	3.39	3.10	3.12	2.97						
90	0.04	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.03	0.05	0.03	0.04						
95	0.03	0.04	0.04	0.03	0.03	0.03	0.04	0.03	0.04	0.04	0.04	0.04						
100	0.06	0.05	0.05	0.06	0.05	0.05	0.04	0.05	0.05	0.06	0.06	0.06						
105	0.06	0.07	0.08	0.07	0.06	0.06	0.06	0.07	0.07	0.06	0.06	0.07						
110	0.08	0.09	0.09	0.09	0.07	0.08	0.09	0.09	0.09	0.08	0.09	0.08						
115	0.08	0.12	0.09	0.11	0.08	0.12	0.12	0.09	0.11	0.08	0.12	0.09						
120	0.13	0.17	0.11	0.15	0.11	0.16	0.16	0.11	0.15	0.11	0.16	0.13						
125	0.17	0.20	0.18	0.20	0.16	0.20	0.20	0.17	0.19	0.17	0.21	0.17						
130	0.23	0.27	0.23	0.25	0.22	0.25	0.25	0.21	0.26	0.23	0.26	0.24						
135	0.30	0.34	0.29	0.33	0.29	0.32	0.31	0.27	0.33	0.29	0.34	0.31						
140	0.39	0.43	0.38	0.42	0.38	0.40	0.40	0.37	0.42	0.37	0.42	0.39						
145	0.48	0.52	0.48	0.50	0.48	0.50	0.49	0.46	0.51	0.48	0.53	0.48						
150	0.59	0.62	0.58	0.61	0.57	0.60	0.59	0.58	0.62	0.57	0.62	0.59						
155	0.69	0.73	0.69	0.73	0.67	0.71	0.70	0.67	0.72	0.68	0.73	0.70						
160	0.80	0.83	0.79	0.83	0.78	0.82	0.81	0.78	0.82	0.80	0.84	0.80						
165	0.89	0.92	0.90	0.93	0.89	0.91	0.92	0.89	0.92	0.90	0.93	0.90						
170	0.98	1.00	0.99	1.00	0.97	1.00	0.99	0.97	0.99	0.98	1.00	0.98						
175	1.02	1.06	1.02	1.05	1.02	1.06	1.04	1.02	1.04	1.02	1.06	1.02						
180	1.07	1.07	1.05	1.06	1.06	1.06	1.07	1.06	1.07	1.06	1.07	1.06						

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2019-06-03

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.279
Humidity:65.0%
Test Distance:8.989m [K=1.0000]
Remarks: