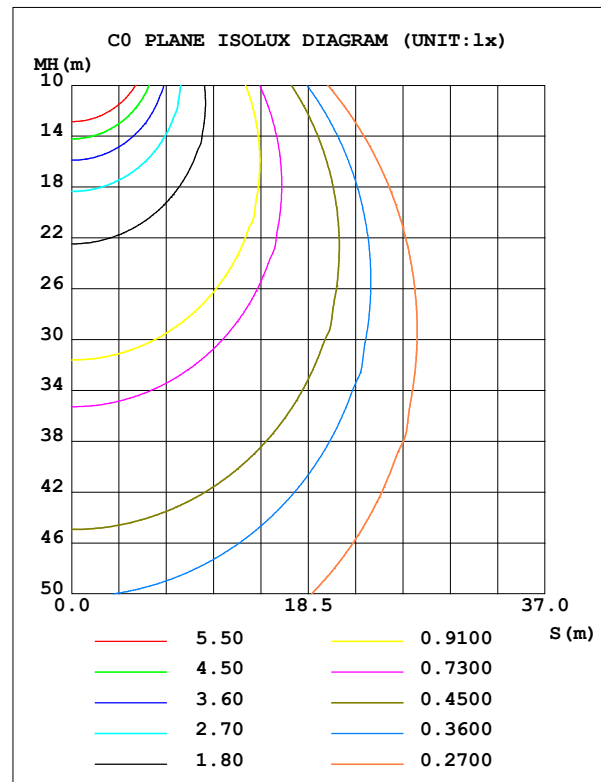
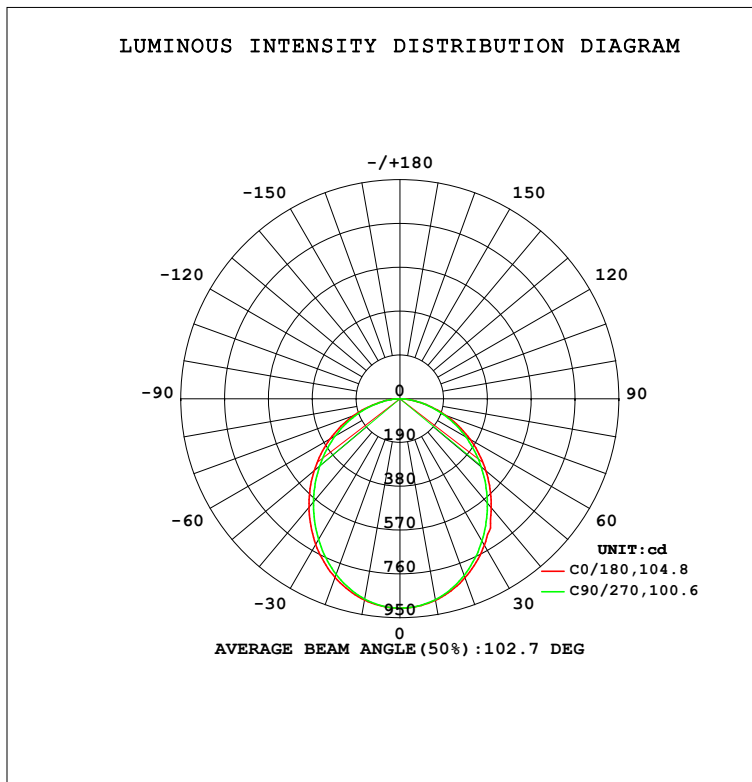


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:239.98V I:0.1136A P:25.515W PF:0.9363 Freq:50.09Hz Lamp Flux:2331.79x1 lm		
NAME: HIP H_1165_SUS 2M_WHT_OV_HE_500mA_4K_INDIRECT	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 91.39 lm/W
IMC024x280mm	650lm 840 HV ADV5	I _{max} (cd)	908.3	S/MH (C0/180)	1.20	
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.17	
RATED VOLTAGE (V)	230.0	TOTAL FLUX (lm)	2331.8	η UP,DN (C0-180)	0.0,50.2	
NOMINAL FLUX (lm)	2331.79	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,49.8	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE (V)	230	η down (%)	100.0	CIBSE SHR MAX	1.35	



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:05 August 2019

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	887.5	886.3	884.7	885.9	886.3	884.2	882.1	884.6	0- 10	85.61	85.61	3.67,3.67
20	826.4	821.2	815.3	820.6	824.4	817.1	810.3	818.0	10- 20	241.5	327.1	14,14
30	732.8	722.8	712.2	722.4	730.4	717.9	706.1	718.8	20- 30	355.9	683.0	29.3,29.3
40	616.5	603.4	590.2	603.3	614.4	598.6	584.0	599.4	30- 40	414.5	1098	47.1,47.1
50	486.9	473.6	460.9	474.2	485.8	469.8	455.2	470.0	40- 50	414.7	1512	64.9,64.9
60	350.7	339.9	330.3	341.4	350.8	337.6	325.4	336.8	50- 60	362.8	1875	80.4,80.4
70	211.6	205.9	201.3	208.2	213.1	205.3	197.6	203.4	60- 70	269.4	2144	92,92
80	79.89	81.38	82.55	83.97	82.33	82.24	80.08	79.68	70- 80	149.8	2294	98.4,98.4
90	1.342	3.207	4.595	3.538	1.432	3.689	4.648	3.448	80- 90	37.53	2332	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 1308.3 lm

%lum = 56.1%

%lamp = 56.1%

Conical surface Flux(120deg): 1875 lm

%lum = 80.4%

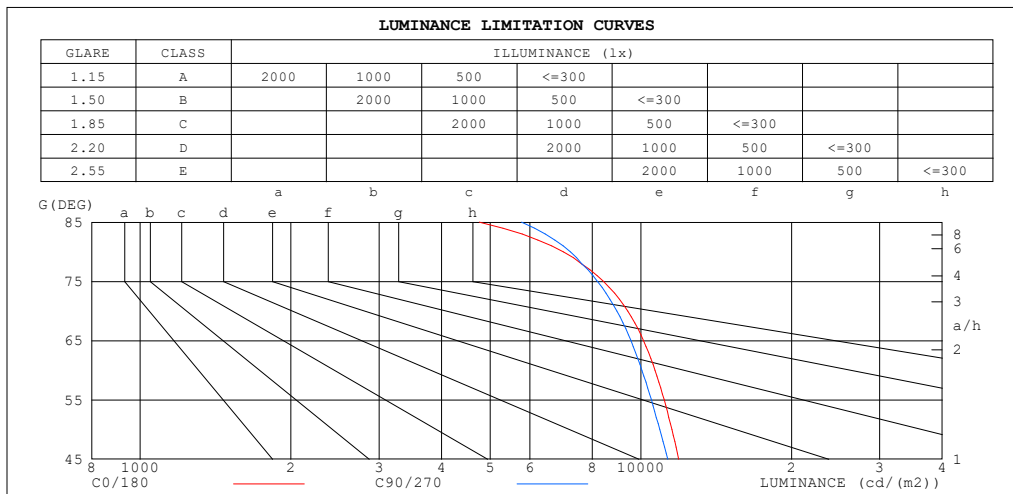
%lamp = 80.4%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:05 August 2019

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:239.98V I:0.1136A P:25.515W PF:0.9363 Freq:50.09Hz Lamp Flux:2331.79x1 lm		
NAME: HIP H_1165_SUS 2M_WHT_OV_HE_500mA_4K_INDIRECT	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	4755	5775
80	7005	7234
75	8418	8192
70	9420	8958
65	10130	9554
60	10680	10053
55	11135	10497
50	11534	10911
45	11906	11320

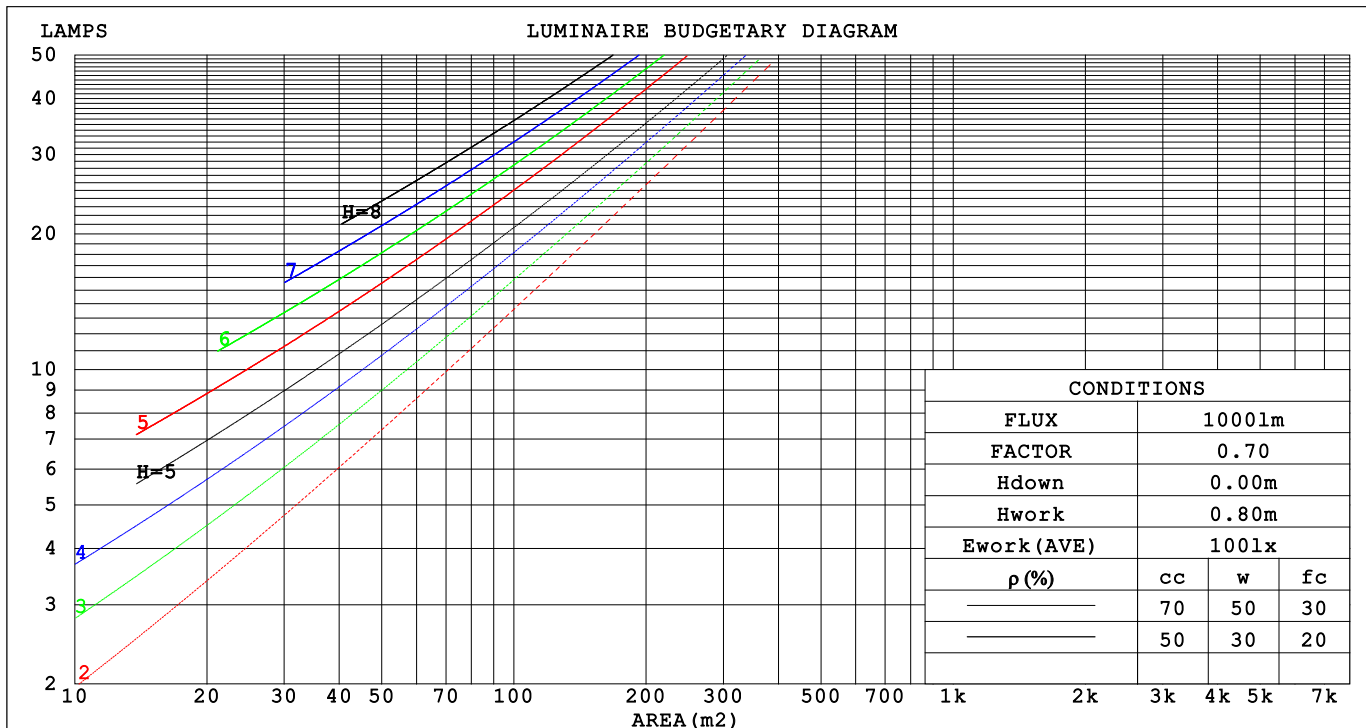
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:05 August 2019

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:239.98V I:0.1136A P:25.515W PF:0.9363 Freq:50.09Hz Lamp Flux:2331.79x1 lm		
NAME: HIP H_1165_SUS 2M_WHT_OV_HE_500mA_4K_INDIRECT	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:05 August 2019

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:239.98V I:0.1136A P:25.515W PF:0.9363 Freq:50.09Hz Lamp Flux:2331.79x1 lm		
NAME: HIP H_1165_SUS 2M_WHT_OV_HE_500mA_4K_INDIRECT	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.300	.171	.054	.293	.167	.053	.280	.161	.051	.268	.154	.050	.256	.149	.048	
2.0	.284	.156	.048	.278	.153	.047	.266	.148	.046	.255	.143	.045	.245	.139	.044	
3.0	.263	.140	.042	.258	.138	.042	.248	.134	.041	.238	.131	.040	.229	.127	.039	
4.0	.244	.127	.037	.239	.125	.037	.230	.122	.036	.221	.119	.036	.213	.116	.035	
5.0	.226	.115	.033	.221	.114	.033	.213	.111	.033	.206	.109	.032	.199	.106	.032	
6.0	.210	.105	.030	.206	.104	.030	.199	.102	.030	.192	.100	.029	.186	.098	.029	
7.0	.195	.097	.027	.192	.096	.027	.186	.094	.027	.180	.092	.027	.174	.090	.027	
8.0	.183	.089	.025	.180	.089	.025	.174	.087	.025	.169	.085	.025	.164	.084	.024	
9.0	.171	.083	.023	.169	.082	.023	.164	.081	.023	.159	.080	.023	.154	.078	.023	
10.0	.161	.077	.021	.159	.077	.021	.154	.076	.021	.150	.074	.021	.146	.073	.021	

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.180	.156	.135	.154	.134	.116	.105	.092	.080	.061	.053	.047	.019	.017	.015	
2.0	.171	.132	.099	.147	.114	.086	.100	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.163	.114	.075	.140	.099	.065	.096	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.156	.101	.059	.133	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.042	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.035	.084	.050	.024	.048	.029	.015	.016	.010	.005	
7.0	.134	.075	.034	.115	.065	.029	.080	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.069	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:05 August 2019

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:239.98V I:0.1136A P:25.515W PF:0.9363 Freq:50.09Hz Lamp Flux:2331.79x1 lm											
NAME: HIP H_1165_SUS 2M_WHT_OV_HE_500mA_4K_INDIRECT					TYPE:LED			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:1			
MFR.: DARKON					SUR.:			Shielding 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		18.2	19.7	18.5	19.9	20.1	18.0	19.5	18.2	19.7	19.9
	3H	19.7	21.1	20.0	21.3	21.5	19.4	20.8	19.7	21.0	21.2
	4H	20.2	21.5	20.5	21.8	22.0	19.9	21.2	20.2	21.5	21.8
	6H	20.6	21.8	20.9	22.1	22.3	20.3	21.6	20.7	21.8	22.1
	8H	20.6	21.8	21.0	22.1	22.4	20.4	21.6	20.8	21.9	22.2
	12H	20.7	21.8	21.0	22.1	22.4	20.5	21.6	20.8	21.9	22.2
4H	2H	18.8	20.1	19.1	20.3	20.6	18.6	19.9	18.9	20.1	20.4
	3H	20.4	21.6	20.8	21.8	22.1	20.2	21.3	20.5	21.6	21.9
	4H	21.1	22.1	21.4	22.4	22.8	20.8	21.9	21.2	22.2	22.5
	6H	21.5	22.5	21.9	22.8	23.2	21.3	22.3	21.7	22.6	23.0
	8H	21.7	22.5	22.1	22.9	23.3	21.5	22.4	21.9	22.7	23.1
	12H	21.7	22.5	22.1	22.9	23.3	21.6	22.4	22.0	22.8	23.2
8H	4H	21.3	22.2	21.7	22.5	22.9	21.1	22.0	21.5	22.3	22.7
	6H	21.9	22.6	22.3	23.0	23.4	21.7	22.5	22.2	22.9	23.3
	8H	22.1	22.7	22.5	23.1	23.6	22.0	22.6	22.4	23.0	23.5
	12H	22.2	22.7	22.7	23.2	23.7	22.1	22.7	22.6	23.1	23.6
12H	4H	21.3	22.1	21.7	22.5	22.9	21.1	21.9	21.5	22.3	22.7
	6H	21.9	22.6	22.4	23.0	23.4	21.8	22.4	22.2	22.8	23.3
	8H	22.2	22.7	22.6	23.1	23.6	22.0	22.6	22.5	23.0	23.5
Variations with the observer position at spacings:											
S = 1.0H		+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H		+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H		+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117, 2332 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.9)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:05 August 2019

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:239.98V I:0.1136A P:25.515W PF:0.9363 Freq:50.09Hz Lamp Flux:2331.79x1 lm		
NAME: HIP H_1165_SUS 2M_WHT_OV_HE_500mA_4K_INDIRECT	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

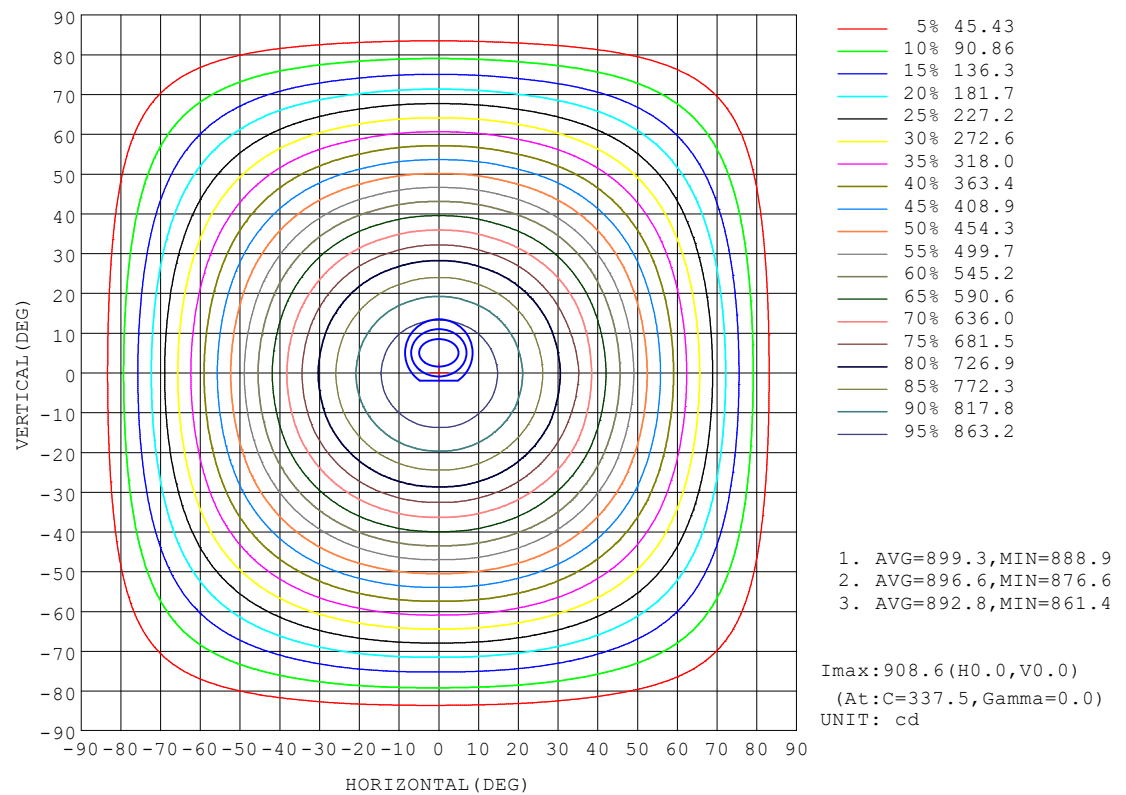
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	59	48	41	58	47	41	57	47	40	34
0.80	69	58	50	68	57	50	66	56	50	43
1.00	77	66	59	76	66	59	74	67	59	52
1.25	84	74	67	83	73	67	80	72	66	59
1.50	89	80	73	87	79	72	85	77	71	64
2.00	96	88	81	94	86	80	91	84	79	71
2.50	100	92	86	98	91	85	94	88	83	75
3.00	103	96	91	101	95	90	97	92	88	79
4.00	107	101	97	104	99	95	100	96	93	84
5.00	109	104	100	107	102	99	102	99	96	87
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:05 August 2019

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:239.98V I:0.1136A P:25.515W PF:0.9363 Freq:50.09Hz Lamp Flux:2331.79x1 lm		
NAME: HIP H_1165_SUS 2M_WHT_OV_HE_500mA_4K_INDIRECT	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

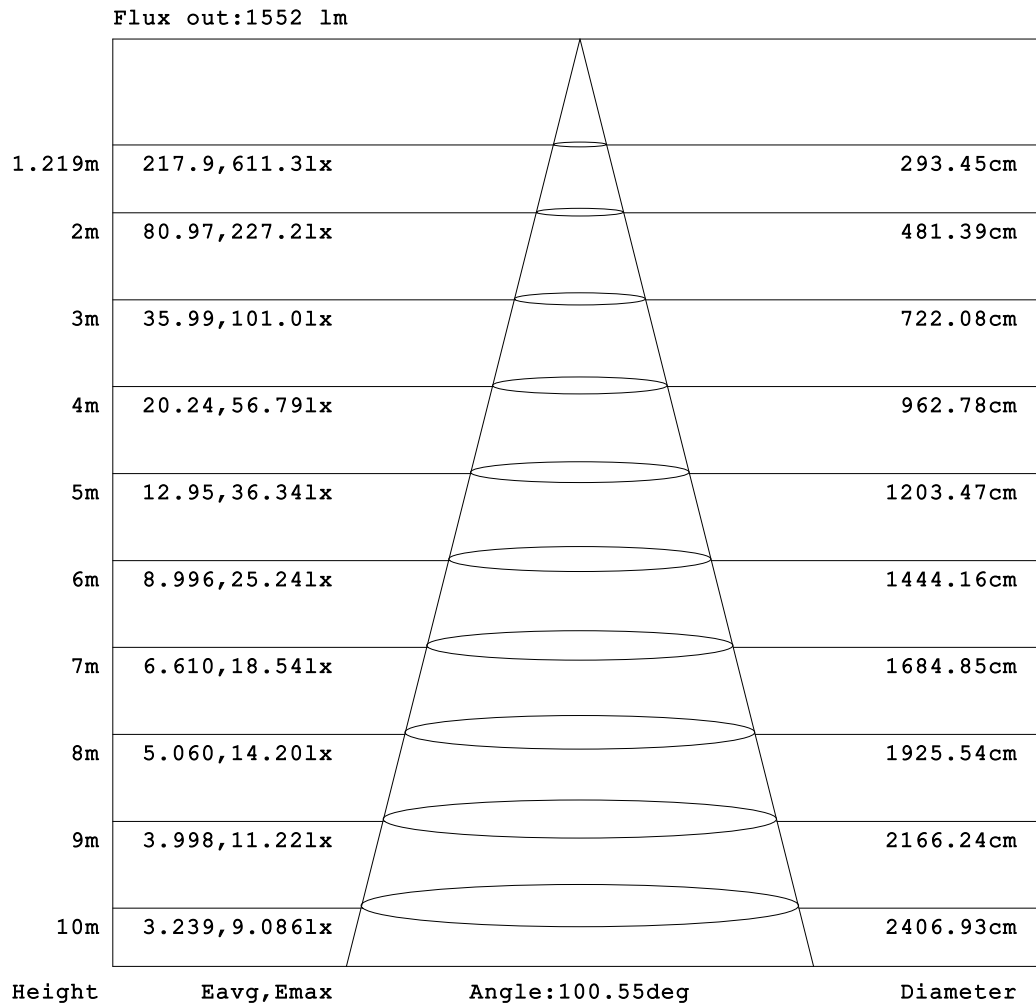


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JEFF
Test Date: 05 August 2019

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity: 65.0%
Test Distance: 7.220m [K=1.0000]
Remarks:

AAI Figure

Test:U:239.98V I:0.1136A P:25.515W PF:0.9363 Freq:50.09Hz Lamp Flux:2331.79x1 lm		
NAME: HIP H_1165_SUS 2M_WHT_OV_HE_500mA_4K_INDIRECT	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



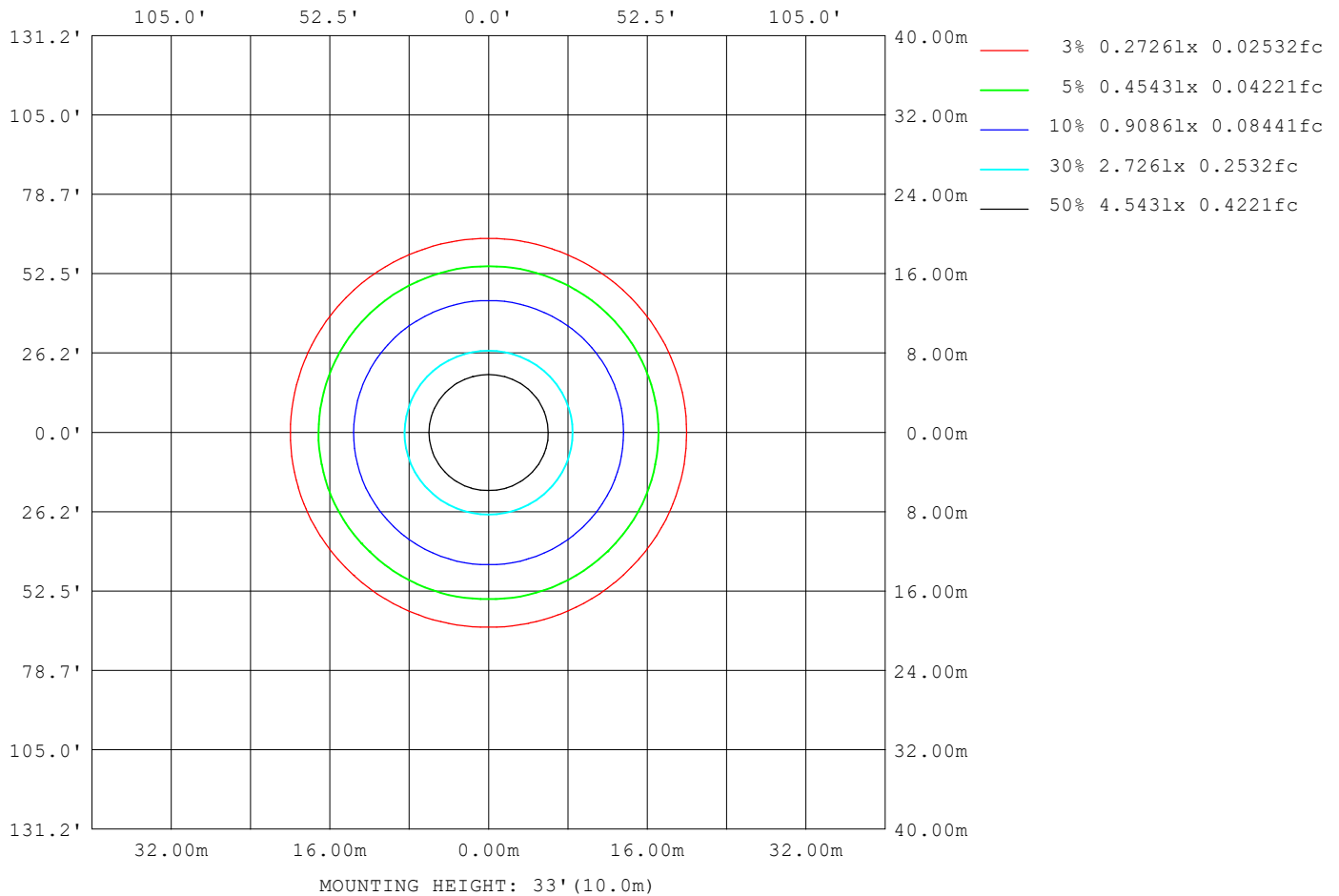
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:05 August 2019

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:239.98V I:0.1136A P:25.515W PF:0.9363 Freq:50.09Hz Lamp Flux:2331.79x1 lm		
NAME: HIP H_1165_SUS 2M_WHT_OV_HE_500mA_4K_INDIRECT	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JEFF
 Test Date:05 August 2019

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:7.220m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:239.98V I:0.1136A P:25.515W PF:0.9363 Freq:50.09Hz Lamp Flux:2331.79x1 lm		
NAME: HIP H_1165_SUS 2M_WHT_OV_HE_500mA_4K_INDIRECT	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

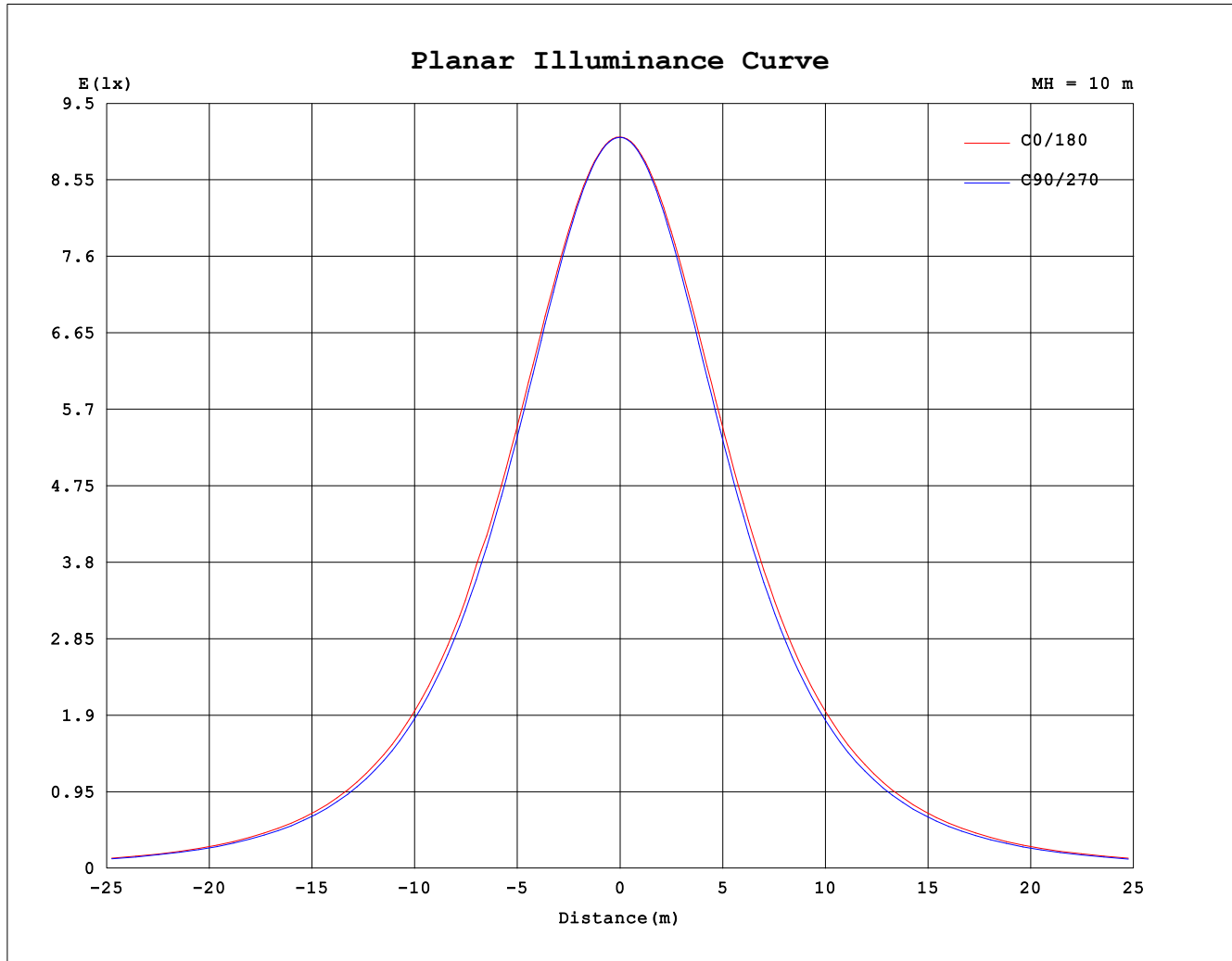
AvgL	cd/m2
L_0~180(65)av	10140
L_0~180(75)av	8496
L_0~180(85)av	4934
L_90~270(65)av	9474
L_90~270(75)av	8116
L_90~270(85)av	5646
L_45(65)av	9799
L_45(75)av	8313
L_45(85)av	5428

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:05 August 2019

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JEFF
Test Date: 05 August 2019

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity: 65.0%
Test Distance: 7.220m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

```