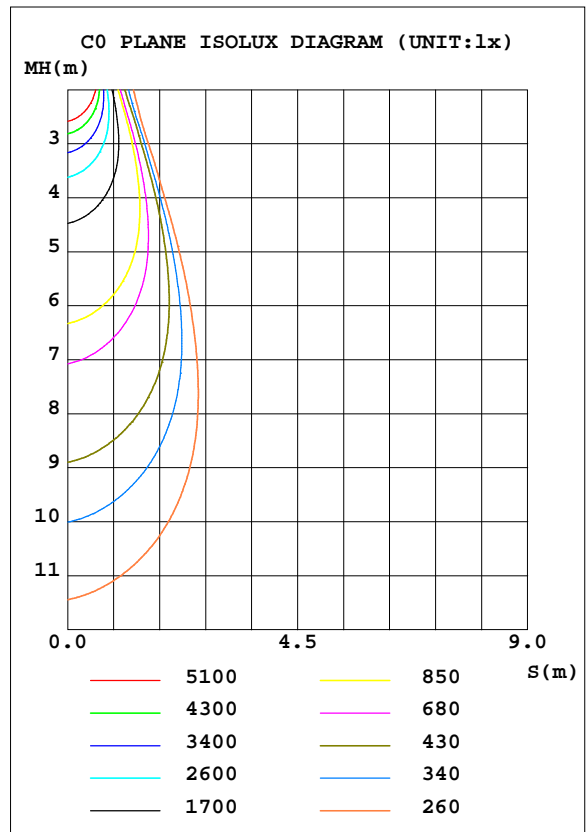
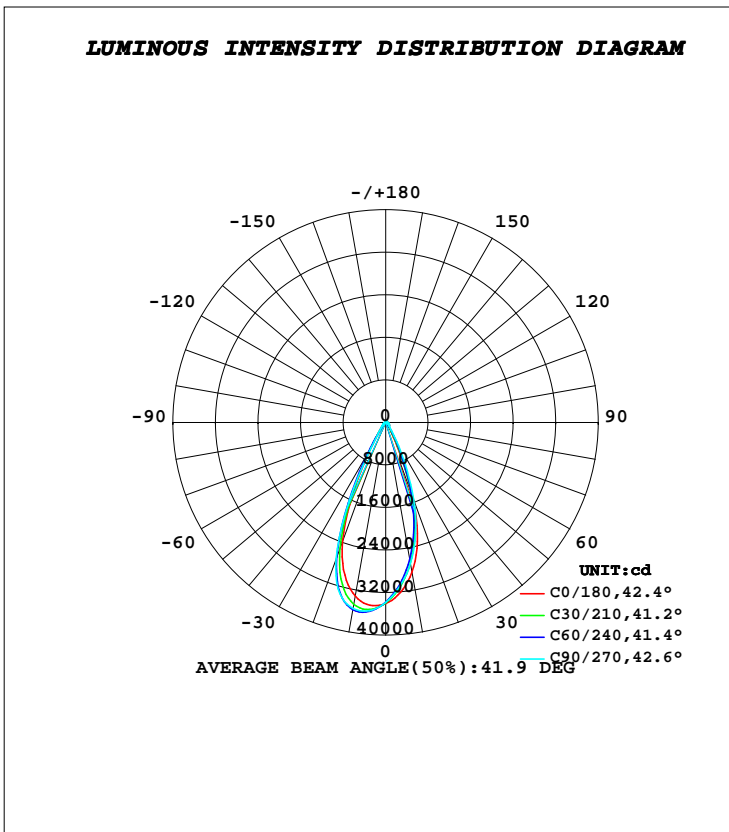


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:221.5V I:0.7150A P:156.1W PF:0.9840 Lamp Flux:19801.2x1 lm		
NAME: JH-Li150W-01	TYPE:LED	
DIM.: 900*135mm	SUR.:850*100MM	
MFR.:		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 126.85 lm/W			
MODEL	JH-Li150W-01	I _{max} (cd)	35960	S/MH(C0/180)	0.58
NOMINAL POWER(W)	150	LOR(%)	100.0	S/MH(C90/270)	0.61
RATED VOLTAGE(V)	222	TOTAL FLUX(lm)	19801	η UP, DN(C0-180)	1.5, 41.3
NOMINAL FLUX(lm)	19801.2	CIE CLASS	DIRECT	η UP, DN(C180-360)	1.6, 55.6
LAMPS INSIDE	1	η up(%)	3.1	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	221.5	η down(%)	96.9	CIBSE SHR MAX	0.65



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2016-08-21

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	2858	2648	2692	2925	3316	3522	3549	3272	0- 10	3099	3099	15.7,15.7
20	1508	1392	1536	1836	2378	2607	2732	2221	10- 20	7322	10421	52.6,52.6
30	234.2	303.7	424.7	493.6	577.8	664.8	561.8	423.5	20- 30	5240	15662	79.1,79.1
40	103.7	98.93	131.9	111.9	132.5	126.0	144.9	110.3	30- 40	1376	17038	86,86
50	66.52	64.08	77.77	66.13	73.98	70.25	79.40	67.77	40- 50	679.8	17718	89.5,89.5
60	48.83	48.93	56.17	49.95	52.33	49.56	50.96	48.26	50- 60	525.9	18244	92.1,92.1
70	36.95	38.52	42.57	39.92	42.21	37.70	33.85	36.77	60- 70	438.9	18683	94.4,94.4
80	24.68	26.54	21.97	26.58	27.63	24.53	15.29	26.04	70- 80	332.1	19015	96,96
90	2.672	4.119	2.503	6.580	9.640	6.346	4.507	5.245	80- 90	166.5	19181	96.9,96.9
100	2.418	2.490	2.752	2.212	4.965	5.037	5.126	5.168	90-100	40.07	19221	97.1,97.1
110	4.347	4.464	4.482	3.886	6.038	5.908	6.118	6.167	100-110	46.16	19268	97.3,97.3
120	7.574	7.750	7.630	6.887	7.549	7.528	7.826	8.008	110-120	62.14	19330	97.6,97.6
130	12.04	12.10	11.43	11.02	10.40	10.31	10.43	11.02	120-130	82.80	19413	98,98
140	16.97	16.76	15.35	15.64	14.40	14.01	13.64	14.73	130-140	101.3	19514	98.5,98.5
150	21.80	20.44	18.72	19.89	19.19	18.07	16.96	18.22	140-150	107.9	19622	99.1,99.1
160	23.49	21.54	21.31	22.38	22.53	21.23	19.96	20.24	150-160	94.50	19716	99.6,99.6
170	23.62	22.54	23.47	23.13	23.00	22.90	22.62	22.09	160-170	62.69	19779	99.9,99.9
180	24.77	23.73	24.42	23.62	24.88	23.72	24.36	23.63	170-180	22.22	19801	100,100
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

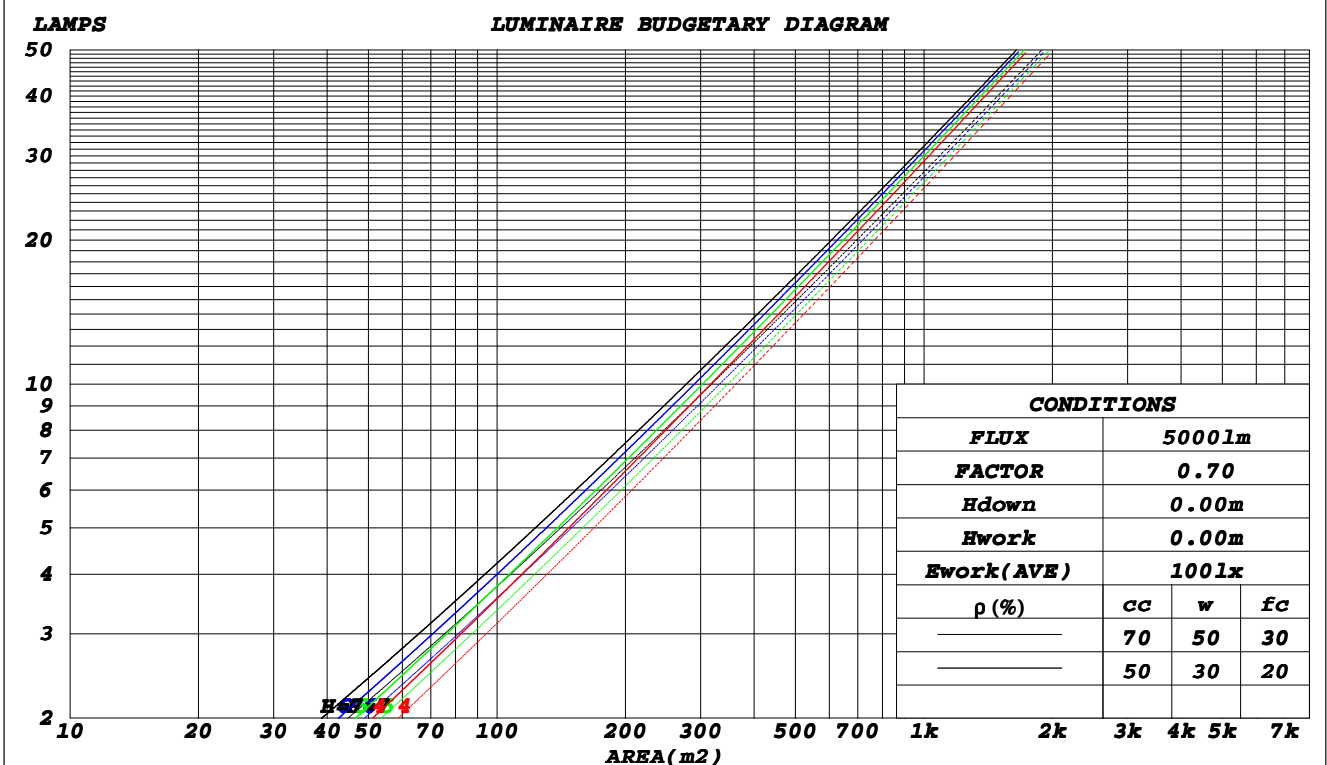
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2016-08-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.000m [K=0.7063]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:221.5V I:0.7150A P:156.1W PF:0.9840 Lamp Flux:19801.2x1 lm		
NAME: JH-Li150W-01	TYPE:LED	
DIM.: 900*135mm	SUR.:850*100MM	
MFR.:		

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.18	1.18	1.18	1.15	1.15	1.15	1.09	1.09	1.09	1.04	1.04	1.04	.99	.99	.99	.97
1.0	1.09	1.07	1.04	1.07	1.05	1.02	1.02	1.00	.99	.98	.97	.95	.94	.93	.92	.90
2.0	1.02	.98	.94	.90	.96	.93	.96	.93	.90	.93	.90	.88	.89	.87	.86	.84
3.0	.95	.90	.86	.94	.89	.85	.91	.87	.84	.88	.85	.82	.85	.83	.80	.79
4.0	.90	.84	.80	.88	.83	.79	.86	.82	.78	.83	.80	.77	.81	.78	.76	.74
5.0	.85	.79	.75	.84	.78	.74	.81	.77	.73	.79	.76	.73	.78	.74	.72	.70
6.0	.80	.75	.70	.79	.74	.70	.77	.73	.69	.76	.72	.69	.74	.71	.68	.67
7.0	.76	.71	.67	.75	.70	.66	.74	.69	.66	.72	.68	.65	.71	.67	.65	.63
8.0	.73	.67	.63	.72	.67	.63	.71	.66	.63	.69	.65	.62	.68	.64	.62	.60
9.0	.69	.64	.60	.69	.64	.60	.68	.63	.60	.67	.62	.59	.65	.62	.59	.58
10.0	.66	.61	.57	.66	.61	.57	.65	.60	.57	.64	.60	.57	.63	.59	.56	.55



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2016-08-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity:65.0%
 Test Distance:8.000m [K=0.7063]
 Remarks:

WEC AND CCEC

Test:U:221.5V I:0.7150A P:156.1W PF:0.9840 Lamp Flux:19801.2x1 lm		
NAME: JH-Li150W-01	TYPE:LED	
DIM.: 900*135mm	SUR.:850*100MM	
MFR.:		

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.190	.108	.034	.182	.104	.033	.167	.096	.031	.154	.089	.029	.142	.082	.027	
2.0	.175	.096	.029	.169	.093	.029	.156	.087	.027	.145	.081	.025	.135	.076	.024	
3.0	.163	.087	.026	.157	.084	.025	.147	.079	.024	.137	.075	.023	.128	.071	.022	
4.0	.152	.079	.023	.147	.077	.023	.138	.073	.022	.130	.070	.021	.122	.066	.020	
5.0	.143	.073	.021	.139	.071	.021	.130	.068	.020	.123	.065	.019	.116	.062	.019	
6.0	.135	.068	.019	.131	.066	.019	.124	.063	.018	.117	.061	.018	.111	.058	.017	
7.0	.127	.063	.018	.124	.062	.018	.118	.060	.017	.112	.057	.017	.106	.055	.016	
8.0	.121	.059	.017	.118	.058	.016	.112	.056	.016	.107	.054	.016	.102	.052	.015	
9.0	.115	.056	.016	.113	.055	.015	.107	.053	.015	.103	.051	.015	.098	.050	.014	
10.0	.110	.053	.015	.108	.052	.015	.103	.050	.014	.099	.049	.014	.094	.047	.014	

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0																
1.0	.214	.214	.214	.183	.183	.183	.125	.125	.125	.072	.072	.072	.023	.023	.023	
2.0	.196	.181	.168	.168	.156	.145	.115	.107	.100	.066	.062	.058	.021	.020	.019	
3.0	.181	.157	.136	.155	.135	.118	.106	.093	.082	.061	.054	.048	.020	.018	.016	
4.0	.168	.138	.114	.144	.119	.099	.099	.083	.069	.057	.048	.041	.018	.016	.013	
5.0	.157	.123	.097	.135	.107	.084	.093	.074	.059	.054	.043	.035	.017	.014	.012	
6.0	.148	.112	.085	.127	.097	.074	.088	.067	.052	.051	.040	.031	.016	.013	.010	
7.0	.140	.102	.075	.120	.089	.065	.083	.062	.046	.048	.036	.028	.016	.012	.009	
8.0	.133	.095	.068	.115	.082	.059	.079	.057	.042	.046	.034	.025	.015	.011	.008	
9.0	.127	.088	.062	.109	.077	.054	.076	.054	.038	.044	.032	.023	.014	.010	.008	
10.0	.122	.083	.057	.105	.072	.050	.073	.051	.035	.042	.030	.021	.014	.010	.007	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2016-08-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.000m [K=0.7063]
Remarks:

Uncorrected UGR Table

Test:U:221.5V I:0.7150A P:156.1W PF:0.9840 Lamp Flux:19801.2x1 lm		
NAME: JH-Li150W-01	TYPE:LED	
DIM.: 900*135mm	SUR.:850*100MM	
MFR.:		

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	16.9	17.8	17.2	18.0	18.3	17.7	18.6	18.0	18.8	19.0
3H	18.9	19.7	19.2	19.9	20.2	19.6	20.4	19.9	20.7	20.9
4H	19.7	20.5	20.1	20.8	21.1	20.5	21.3	20.8	21.6	21.8
6H	20.9	21.6	21.2	21.9	22.2	21.3	22.0	21.6	22.3	22.6
8H	21.3	22.0	21.6	22.3	22.6	21.6	22.3	22.0	22.6	22.9
12H	21.5	22.2	21.9	22.5	22.9	21.8	22.5	22.2	22.8	23.2
4H 2H	17.7	18.5	18.0	18.7	19.0	18.2	19.0	18.6	19.3	19.6
3H	19.8	20.5	20.2	20.8	21.2	20.4	21.1	20.8	21.4	21.8
4H	20.9	21.5	21.3	21.9	22.2	21.5	22.1	21.9	22.5	22.9
6H	22.2	22.7	22.6	23.1	23.5	22.5	23.0	22.9	23.4	23.8
8H	22.7	23.2	23.1	23.6	24.0	22.9	23.4	23.3	23.8	24.2
12H	23.0	23.5	23.5	23.9	24.4	23.2	23.7	23.6	24.1	24.5
8H 4H	21.4	21.9	21.8	22.3	22.7	21.9	22.4	22.4	22.8	23.3
6H	23.0	23.4	23.5	23.9	24.3	23.1	23.6	23.6	24.0	24.5
8H	23.6	24.0	24.1	24.5	25.0	23.7	24.1	24.2	24.5	25.0
12H	24.1	24.4	24.6	24.9	25.4	24.1	24.5	24.7	25.0	25.5
12H 4H	21.5	21.9	21.9	22.4	22.8	22.0	22.5	22.5	22.9	23.4
6H	23.2	23.5	23.7	24.0	24.5	23.3	23.7	23.8	24.2	24.7
8H	23.9	24.2	24.4	24.7	25.2	23.9	24.3	24.5	24.8	25.3
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
2.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				

CIE Pub.117 Corrected 19801 lm Total Lamp Luminous Flux.(8log(F/F0) = 10.4)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2016-08-21

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.000m [K=0.7063]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:221.5V I:0.7150A P:156.1W PF:0.9840 Lamp Flux:19801.2x1 lm		
NAME: JH-Li150W-01	TYPE:LED	
DIM.: 900*135mm	SUR.:850*100MM	
MFR.:		

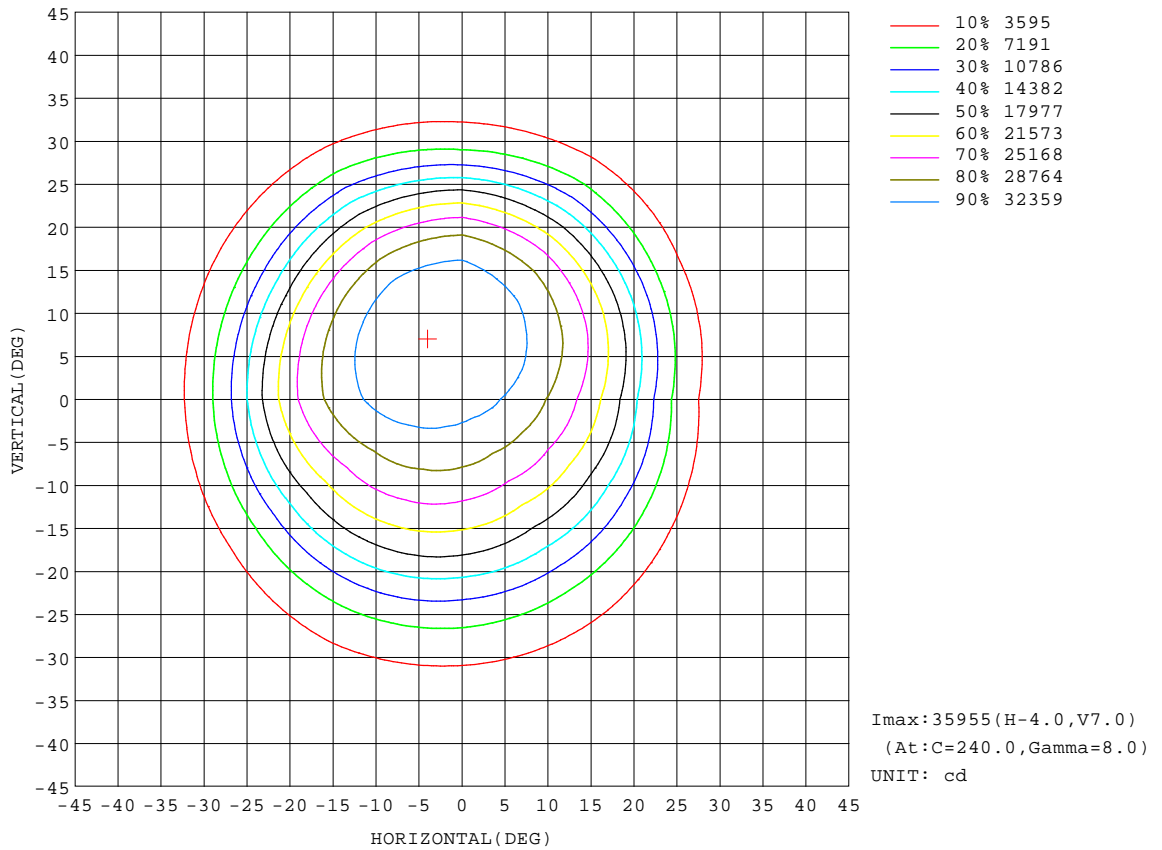
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	83	76	72	82	76	72	81	75	72	68
0.80	91	84	80	90	84	80	88	83	79	75
1.00	95	89	85	94	88	84	92	88	84	79
1.25	99	93	89	98	93	89	96	91	88	83
1.50	102	97	93	101	96	92	98	94	91	85
2.00	105	101	97	104	99	96	100	97	94	88
2.50	107	103	99	106	101	98	102	99	96	89
3.00	109	105	102	107	104	101	103	100	98	91
4.00	112	108	106	109	106	104	105	103	101	93
5.00	113	110	108	111	108	106	106	104	103	94
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:2016-08-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.000m [K=0.7063]
Remarks:

ISOCANDELA DIAGRAM

Test:U:221.5V I:0.7150A P:156.1W PF:0.9840 Lamp Flux:19801.2x1 lm		
NAME: JH-Li150W-01	TYPE:LED	
DIM.: 900*135mm	SUR.:850*100MM	
MFR.:		



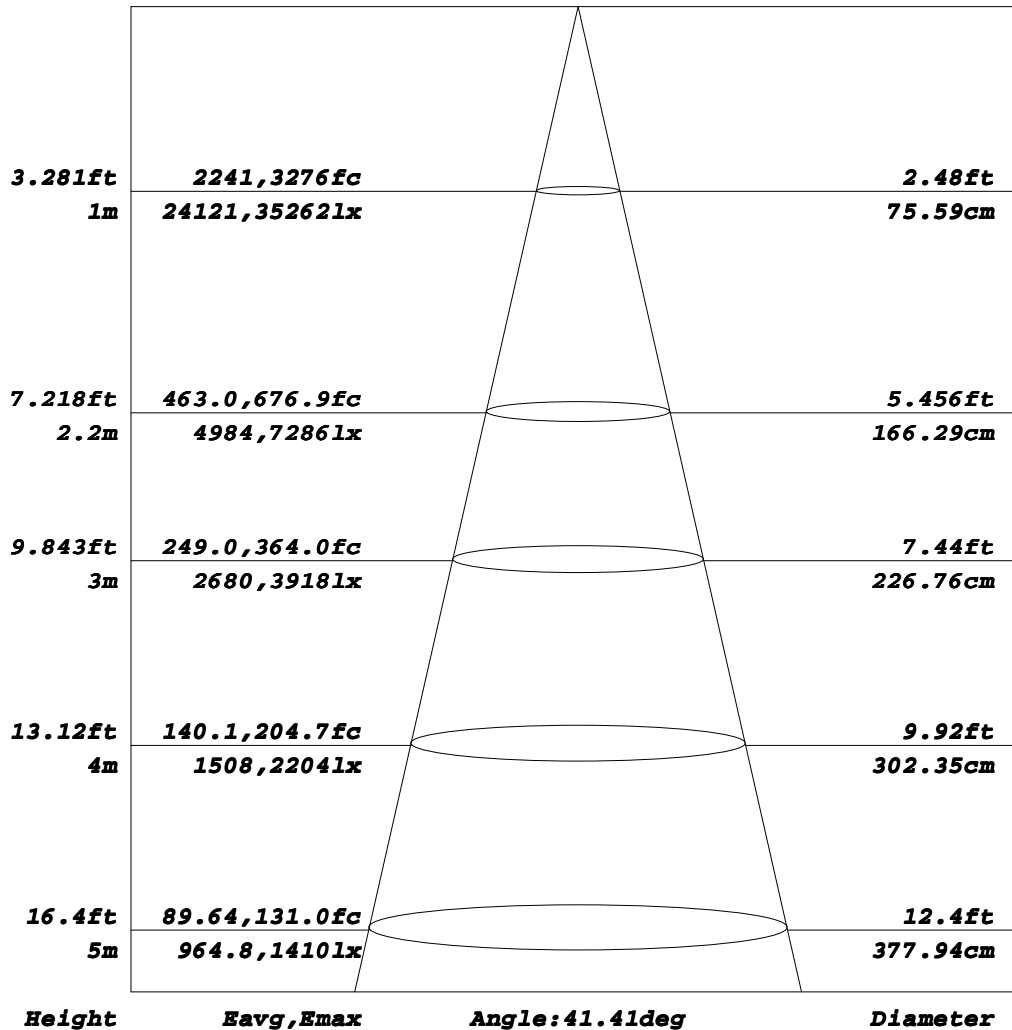
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2016-08-21

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

AAI Figure

Test:U:221.5V I:0.7150A P:156.1W PF:0.9840 Lamp Flux:19801.2x1 lm		
NAME: JH-Li150W-01	TYPE:LED	
DIM.: 900*135mm	SUR.:850*100MM	
MFR.:		

Flux out:11166 lm



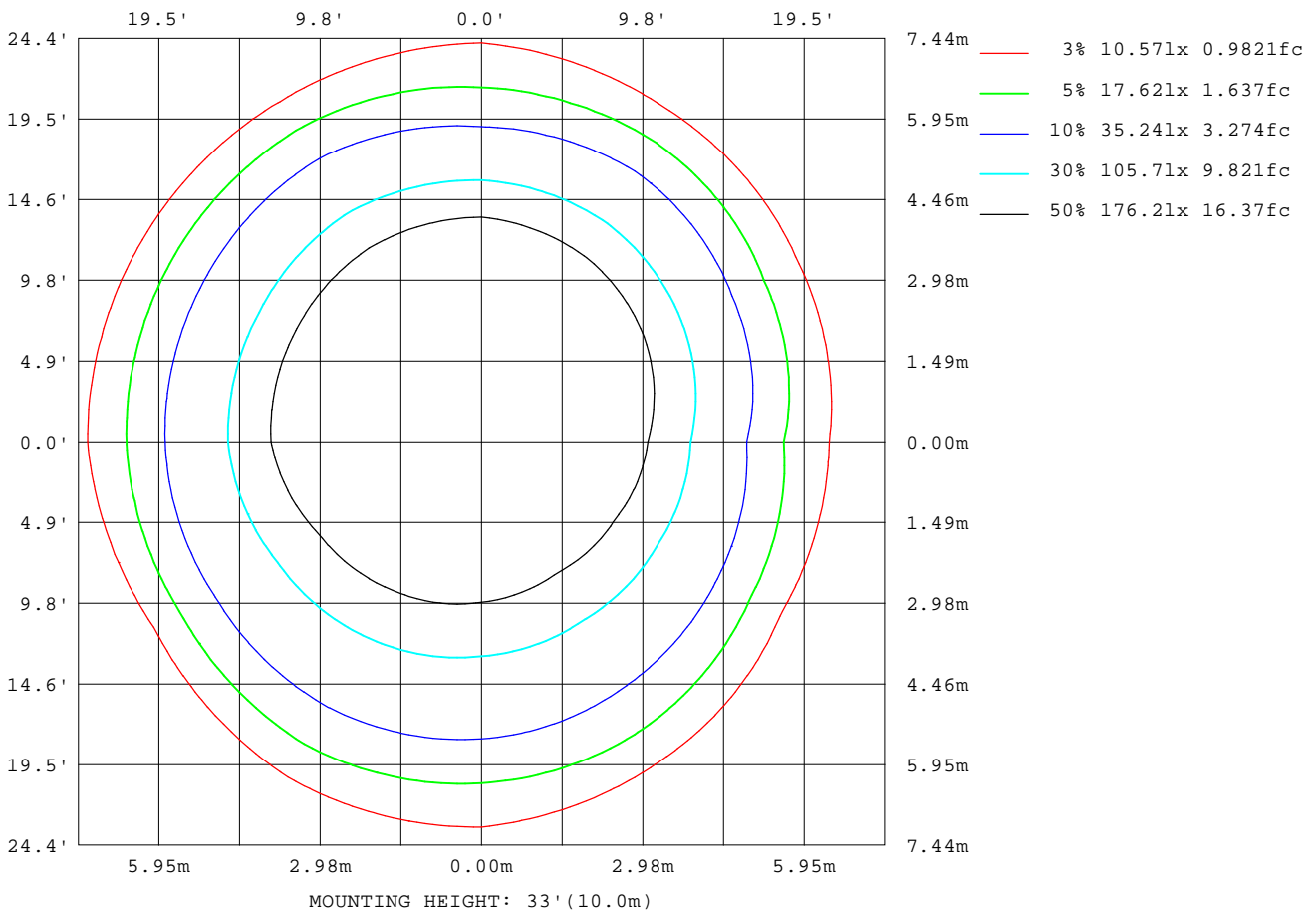
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2016-08-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity: 65.0%
 Test Distance: 8.000m [K=0.7063]
 Remarks:

ISOLUX DIAGRAM

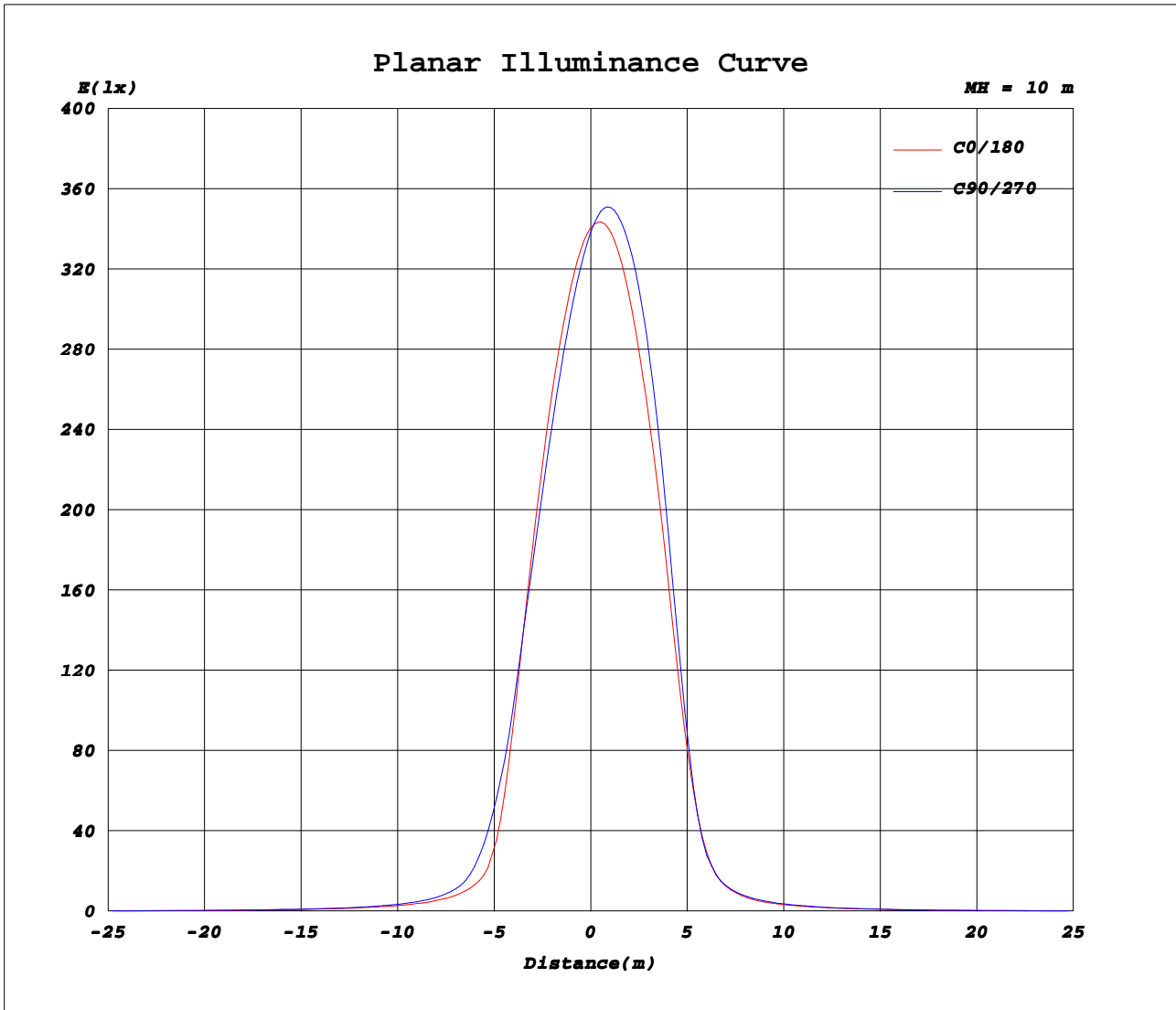
Test:U:221.5V I:0.7150A P:156.1W PF:0.9840 Lamp Flux:19801.2x1 lm		
NAME: JH-Li150W-01	TYPE:LED	
DIM.: 900*135mm	SUR.:850*100MM	
MFR.:		



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2016-08-21

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2016-08-21

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:221.5V I:0.7150A P:156.1W PF:0.9840 Lamp Flux:19801.2x1 lm		
NAME: JH-Li150W-01	TYPE:LED	
DIM.: 900*135mm	SUR.:850*100MM	
MFR.:		

Table--1

UNIT: x10cd

C (DEG) \ γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	3405	3394	3379	3382	3383	3397	3405	3394	3379	3382	3383	3397							
5	3210	3109	3058	3092	3165	3289	3448	3531	3567	3551	3473	3359							
10	2858	2683	2613	2692	2827	3022	3316	3470	3574	3549	3393	3150							
15	2317	2112	2051	2178	2356	2579	2974	3156	3322	3334	3089	2732							
20	1508	1386	1398	1536	1733	1939	2378	2523	2691	2732	2434	2009							
25	618	677	754	884	1020	1152	1433	1510	1678	1630	1395	1015							
30	234	261	346	425	489	498	578	627	703	562	513	334							
35	145	135	162	203	210	182	227	234	239	234	193	163							
40	104	95.8	102	132	122	102	133	127	125	145	114	106							
45	81.0	75.5	77.3	97.6	85.7	76.3	94.1	88.0	88.3	103	85.3	80.4							
50	66.5	63.5	64.7	77.8	68.4	63.9	74.0	69.7	70.8	79.4	69.6	66.0							
55	55.7	54.7	56.3	65.3	58.3	55.7	61.3	58.3	59.0	62.7	57.2	55.4							
60	48.8	48.2	49.6	56.2	51.0	48.9	52.3	49.8	49.3	51.0	48.4	48.1							
65	42.9	43.3	44.4	49.5	45.7	43.8	47.1	44.0	42.5	42.8	42.2	43.0							
70	36.9	37.6	39.4	42.6	41.0	38.8	42.2	38.9	36.5	33.8	36.0	37.5							
75	28.0	31.1	32.8	32.4	34.7	33.3	35.7	33.0	30.2	24.5	29.5	31.0							
80	24.7	27.8	25.3	22.0	27.3	25.9	27.6	25.7	23.3	15.3	22.6	29.5							
85	10.7	16.1	16.4	11.2	16.9	21.0	22.7	20.5	15.9	5.56	13.7	16.8							
90	2.67	3.93	4.31	2.50	6.50	6.66	9.64	7.73	4.96	4.51	4.80	5.69							
95	1.91	1.90	2.17	2.20	2.13	1.72	4.76	4.63	4.75	4.76	4.86	4.74							
100	2.42	2.43	2.55	2.75	2.42	2.01	4.96	4.99	5.09	5.13	5.17	5.17							
105	3.22	3.24	3.31	3.34	3.01	2.71	5.44	5.38	5.45	5.56	5.61	5.59							
110	4.35	4.40	4.53	4.48	4.13	3.65	6.04	5.85	5.97	6.12	6.19	6.15							
115	5.81	5.93	6.01	5.94	5.51	4.98	6.68	6.51	6.67	6.86	6.96	6.94							
120	7.57	7.73	7.77	7.63	7.17	6.61	7.55	7.43	7.62	7.83	8.00	8.02							
125	9.71	9.78	9.87	9.48	9.17	8.52	8.80	8.69	8.86	9.06	9.32	9.47							
130	12.0	12.1	12.1	11.4	11.4	10.7	10.4	10.3	10.4	10.4	10.9	11.2							
135	14.5	14.5	14.4	13.4	13.6	13.0	12.3	12.1	12.1	12.0	12.6	13.1							
140	17.0	17.0	16.5	15.4	15.8	15.4	14.4	14.1	13.9	13.6	14.3	15.2							
145	19.5	19.5	18.2	17.1	17.8	18.0	16.7	16.4	15.7	15.3	15.9	17.3							
150	21.8	21.4	19.5	18.7	19.5	20.3	19.2	18.6	17.5	17.0	17.3	19.1							
155	23.1	22.3	20.2	20.1	20.9	22.0	21.3	20.5	19.2	18.5	18.5	20.3							
160	23.5	22.4	20.6	21.3	21.9	22.8	22.5	21.9	20.6	20.0	19.6	20.9							
165	23.4	22.3	21.4	22.5	22.8	23.0	23.0	22.7	21.8	21.4	20.7	21.5							
170	23.6	22.7	22.4	23.5	23.4	22.9	23.0	22.9	22.9	22.6	21.9	22.2							
175	24.3	23.3	23.3	24.2	23.8	23.1	23.7	23.1	23.6	23.7	23.0	23.0							
180	24.8	23.6	23.9	24.4	23.8	23.4	24.9	23.5	24.0	24.4	23.9	23.4							

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2016-08-21

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.000m [K=0.7063]
Remarks: