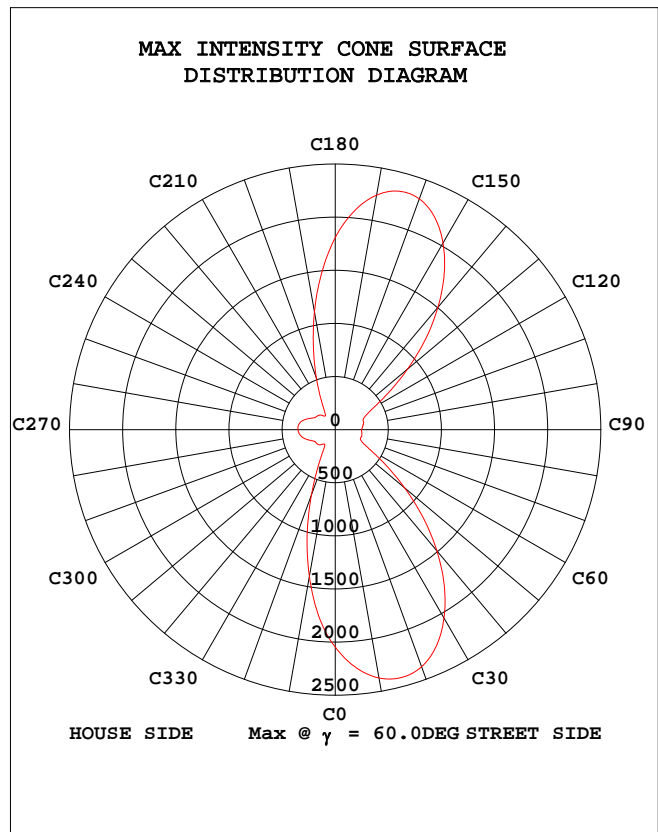
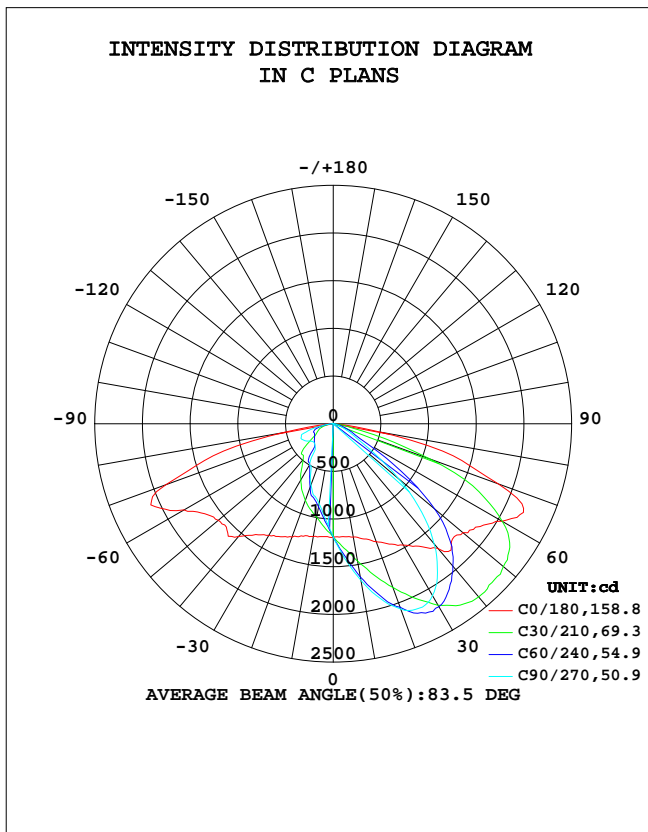


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:230.10V I:0.2118A P:39.640W PF:0.8137 Freq:50.01Hz Lamp Flux:4961.15x1 lm		
NAME: D-20HLED40-16	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 125.16 lm/W			
MODEL	5050 40K RA70 T2A L	I _{max} (cd)	2414	η street_up(%)	0.1
NOMINAL POWER(W)	40	LOR(%)	100.0	η street_down(%)	71.4
RATED VOLTAGE(V)	220.0	TOTAL FLUX(lm)	4961	η house_up(%)	0.2
NOMINAL FLUX(lm)	4961.15	MAXIMUM @(C,γ)	15,60.0	η house_down(%)	28.3
LAMPS INSIDE	1	η up(%)	0.3	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)	230.0	η down(%)	99.7	SLI	20.482



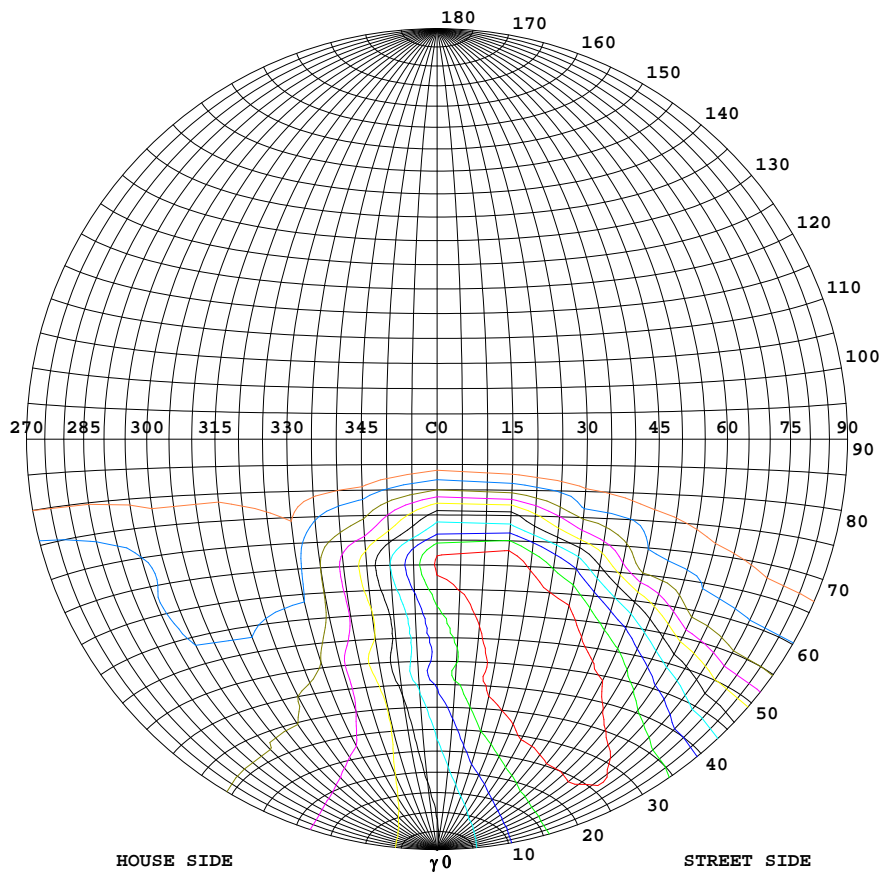
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
Operators:CS01
Test Date:2021-07-17

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 0.0%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED40-16(5050 40K RA70 T2A)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT ISOCANDELA DIAGRAM

Test:U:230.10V I:0.2118A P:39.640W PF:0.8137 Freq:50.01Hz Lamp Flux:4961.15x1 lm		
NAME: D-20HLED40-16	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



Classification:

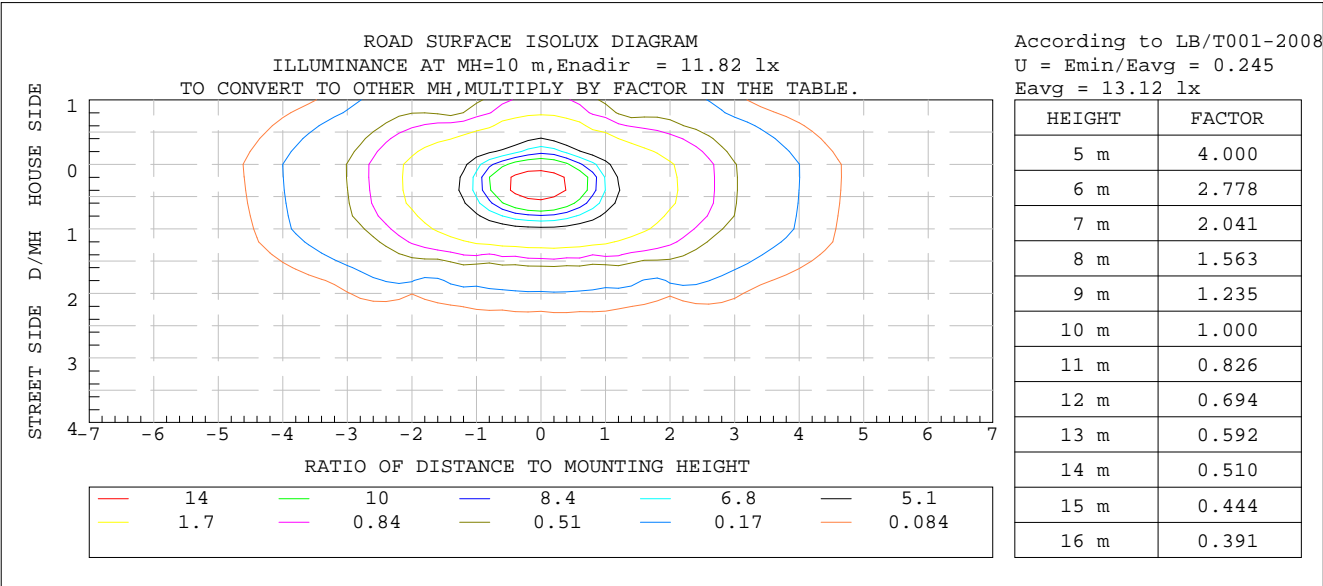
IES:Type II - Short
 CIE:Narrow - Intermediate
 IES:Semi cut-off
 CIE:Non-cut-off
 Max.At80:104.7cd/klm
 Max.At90:0.8101cd/klm
 Max.80-90:104.7cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	2414
90%	2173
80%	1931
70%	1690
60%	1448
50%	1207
40%	966
30%	724
20%	483
10%	241
5%	121

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 0.0DEG
 Operators:CS01
 Test Date:2021-07-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 0.0%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED40-16(5050 40K RA70 T2A)L

COEFFICIENT OF UTILIZATION CURVE
AND ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
Operators:CS01
Test Date:2021-07-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 0.0%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED40-16(5050 40K RA70 T2A)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

Test:U:230.10V I:0.2118A P:39.640W PF:0.8137 Freq:50.01Hz Lamp Flux:4961.15x1 lm		
NAME: D-20HLED40-16	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum,lamp
10	1208	1553	1666	1534	1200	927.4	851.4	926.0	0- 10	115.5	115.5	2.33,2.33
20	1317	1988	2066	1878	1265	772.0	685.1	760.4	10- 20	366.8	482.3	9.72,9.72
30	1469	2268	2081	2120	1352	543.7	497.0	567.4	20- 30	627.7	1110	22.4,22.4
40	1707	2231	1647	2121	1544	444.7	299.5	462.6	30- 40	831.7	1942	39.1,39.1
50	1775	1964	895.5	1932	1574	253.8	289.2	264.5	40- 50	930.8	2873	57.9,57.9
60	2045	1170	246.5	1199	1808	197.3	351.1	203.1	50- 60	876.2	3749	75.6,75.6
70	1834	236.7	84.18	247.9	1864	177.2	357.0	190.0	60- 70	752.6	4501	90.7,90.7
80	478.7	71.00	18.01	80.36	519.3	85.66	120.1	99.85	70- 80	399.4	4901	98.8,98.8
90	1.357	0.5554	0.5068	0.5614	1.309	0.4529	0.8109	0.5086	80- 90	46.63	4947	99.7,99.7
100	2.663	0.5241	0.4559	0.4936	2.717	0.8092	0.4058	0.8177	90-100	1.013	4948	99.7,99.7
110	3.566	0.4929	0.4559	0.5475	3.472	2.122	0.6790	1.838	100-110	1.409	4950	99.8,99.8
120	3.709	0.4617	0.4559	0.5215	3.795	3.184	1.419	2.758	110-120	1.829	4952	99.8,99.8
130	3.693	0.6056	0.5569	0.6129	3.750	4.243	3.293	3.929	120-130	2.129	4954	99.9,99.9
140	3.677	1.041	1.064	1.128	3.635	4.903	4.712	4.693	130-140	2.279	4956	99.9,99.9
150	3.375	1.613	1.267	1.530	3.525	5.203	5.212	4.709	140-150	2.055	4958	99.9,99.9
160	3.746	2.177	1.822	2.039	4.093	4.598	5.087	4.725	150-160	1.561	4960	100,100
170	3.873	3.325	2.933	3.004	4.421	4.478	5.116	4.740	160-170	1.028	4961	100,100
180	4.076	4.293	4.203	3.672	4.478	3.835	4.152	4.029	170-180	0.3843	4961	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

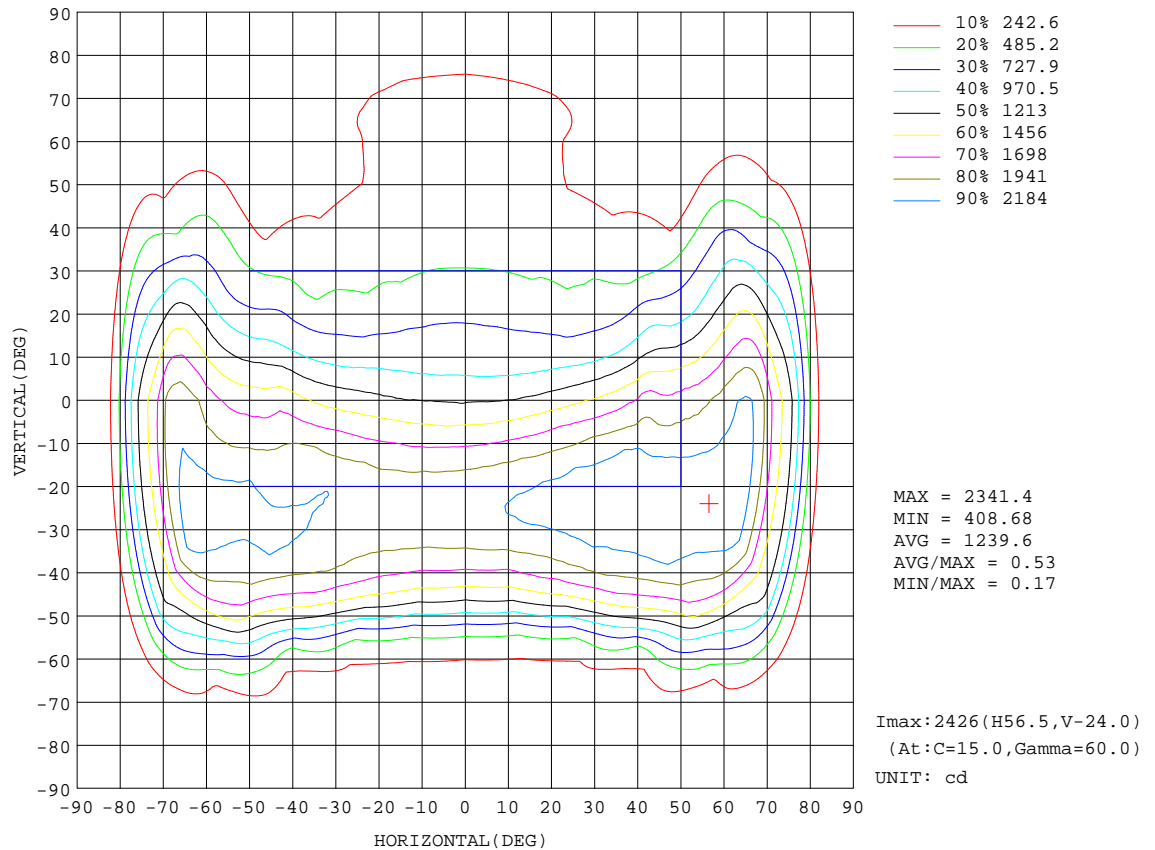
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 0.0DEG
 Operators:CS01
 Test Date:2021-07-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 0.0%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED40-16(5050 40K RA70 T2A)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

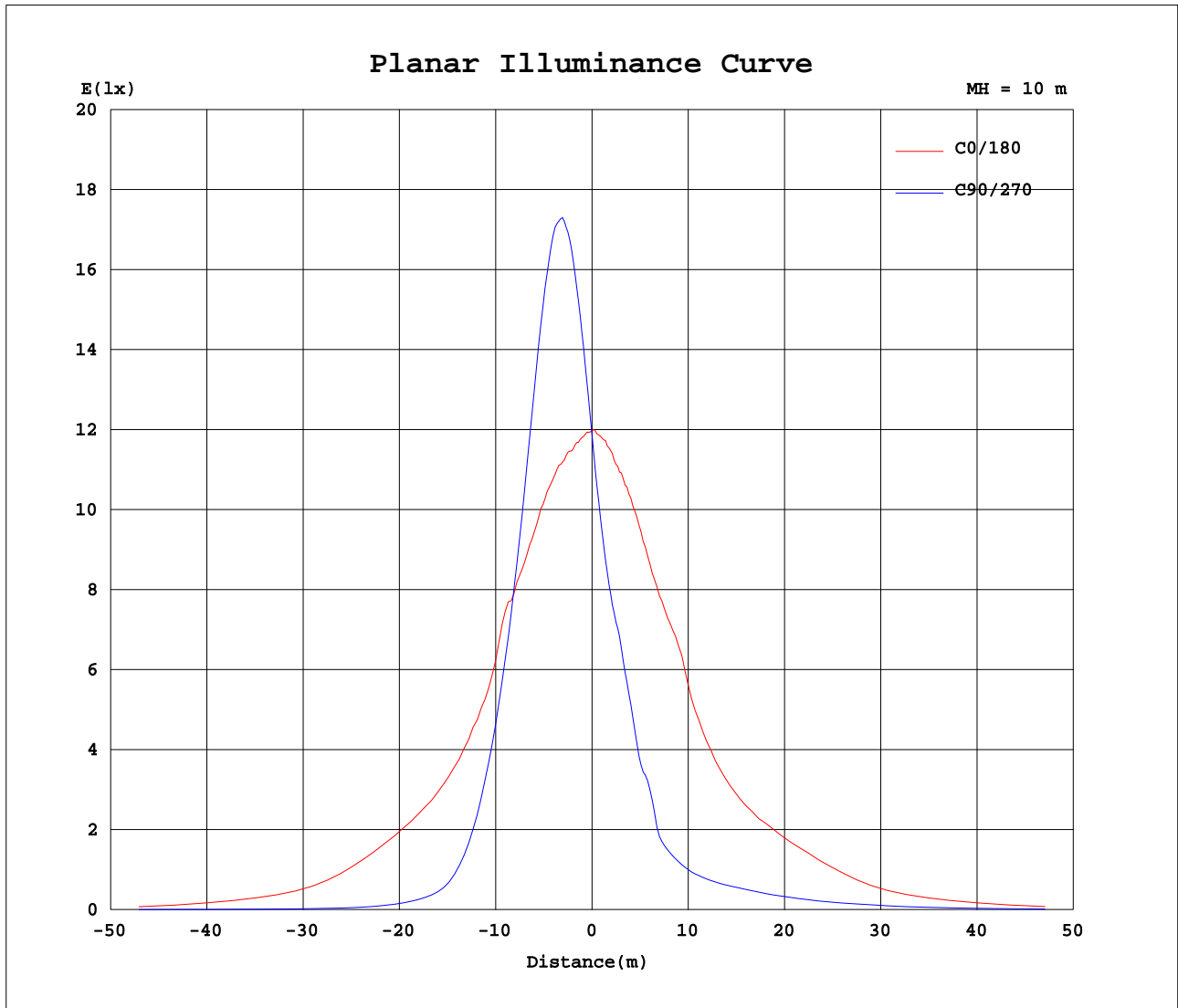
Test:U:230.10V I:0.2118A P:39.640W PF:0.8137 Freq:50.01Hz Lamp Flux:4961.15x1 lm		
NAME: D-20HLED40-16	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
Operators: CS01
Test Date: 2021-07-17

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 0.0%
Test Distance: 26.000m [K=1.0000]
Remarks: D-20HLED40-16(5050 40K RA70 T2A)L

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 0.0DEG
 Operators: CS01
 Test Date: 2021-07-17

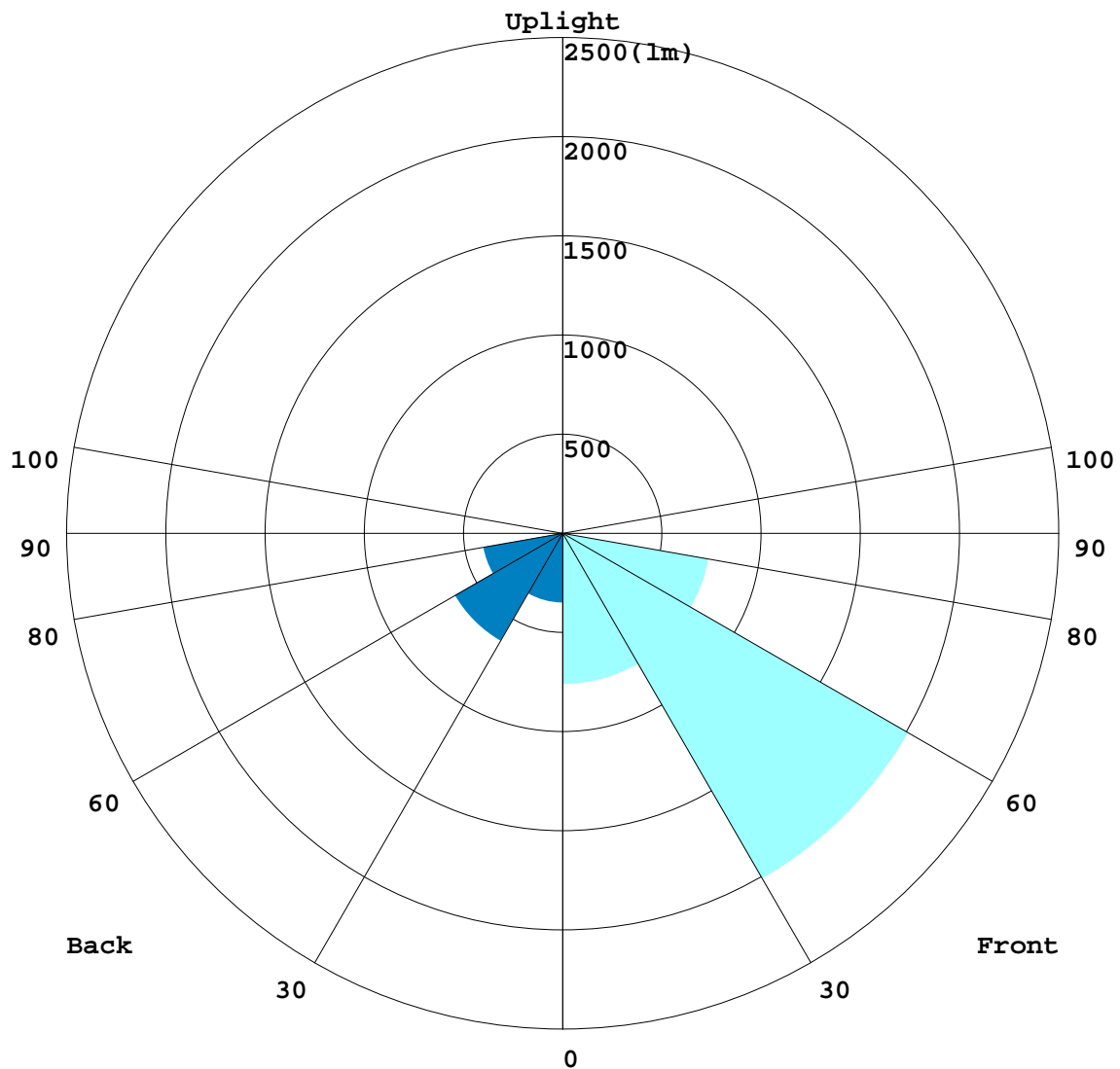
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 0.0%
 Test Distance: 26.000m [K=1.0000]
 Remarks: D-20HLED40-16(5050 40K RA70 T2A)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LCS REPORT

Test:U:230.10V I:0.2118A P:39.640W PF:0.8137 Freq:50.01Hz Lamp Flux:4961.15x1 lm		
NAME: D-20HLED40-16	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

LUMINAIRE CLASSIFICATION SYSTEM(LCS) GRAPH



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
Operators:CS01
Test Date:2021-07-17

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 0.0%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED40-16(5050 40K RA70 T2A)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

BUG REPORT

Test:U:230.10V I:0.2118A P:39.640W PF:0.8137 Freq:50.01Hz Lamp Flux:4961.15x1 lm		
NAME: D-20HLED40-16	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	760.22	15.3
FM - Front-Medium(30-60)	2012.1	40.6
FH - Front-High(60-80)	746.5	15.0
FVH - Front-Very High(80-90)	23.353	0.5
Total Forward Light	3546.3	71.5

BL - Back-Low(0-30)	349.82	7.1
BM - Back-Medium(30-60)	626.7	12.6
BH - Back-High(60-80)	405.5	8.2
BVH - Back-Very High(80-90)	23.274	0.5
Total Back Light	1414.8	28.5

UL - Uplight-Low(90-100)	1.0132	0.0
UH - Uplight-High(100-180)	12.674	0.3
Total Up Light	13.688	0.3

BUG(Back,Up,Glare) Rating	B1-U2-G1
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	1405.3	9.5315	1414.8
Street Side	3542.2	4.1562	3546.3

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 0.0DEG
 Operators:CS01
 Test Date:2021-07-17

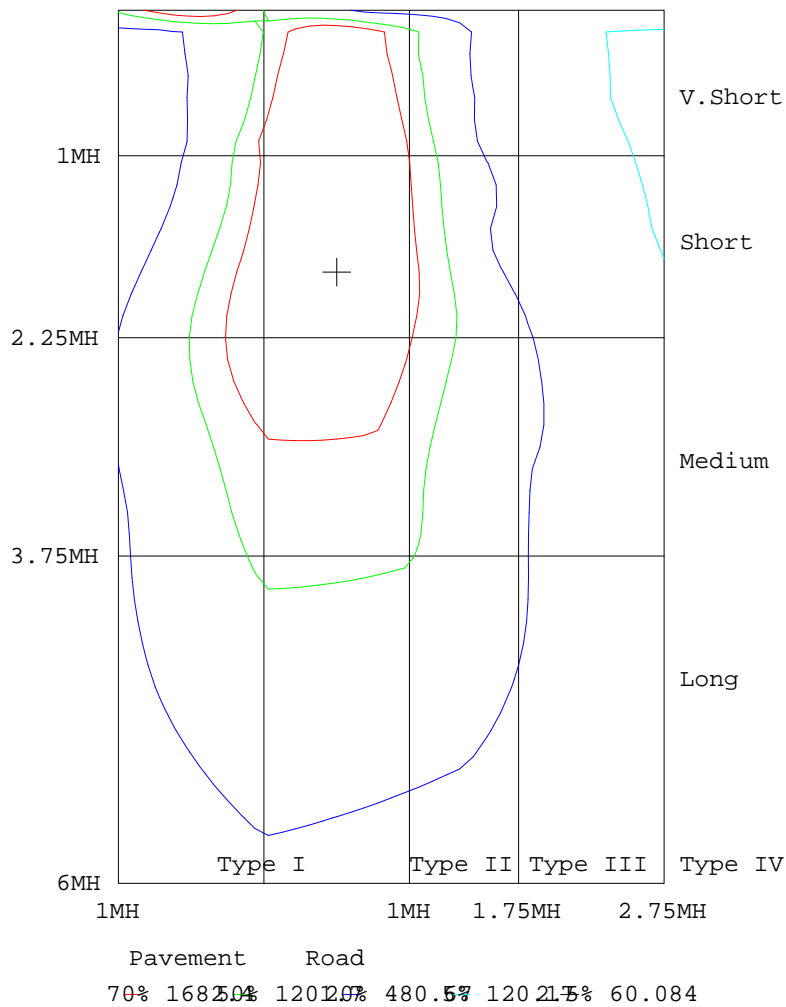
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity: 0.0%
 Test Distance:26.000m [K=1.0000]
 Remarks: D-20HLED40-16(5050 40K RA70 T2A)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ROAD ISOCANDELA REPORT

Test:U:230.10V I:0.2118A P:39.640W PF:0.8137 Freq:50.01Hz Lamp Flux:4961.15x1 lm		
NAME: D-20HLED40-16	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

ROAD SURFACE ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
Operators:CS01
Test Date:2021-07-17

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 0.0%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED40-16(5050 40K RA70 T2A)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.10V I:0.2118A P:39.640W PF:0.8137 Freq:50.01Hz Lamp Flux:4961.15x1 lm																		
NAME: D-20HLED40-16									TYPE:					WEIGHT:				
SPEC.:									DIM.:					SERIAL No.:				
MFR.: KLED									SUR.:					Shielding Angle:				

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187	1187
5	1188	1245	1311	1353	1390	1413	1422	1412	1385	1349	1308	1252	1189	1135	1089	1045	1021	1002	992
10	1208	1331	1461	1553	1629	1660	1666	1646	1601	1534	1440	1324	1200	1093	997	927	889	860	851
15	1251	1457	1641	1777	1857	1900	1892	1880	1810	1708	1583	1411	1221	1053	930	843	803	788	780
20	1317	1610	1825	1988	2047	2085	2066	2042	1982	1878	1730	1516	1265	1027	855	772	711	687	685
25	1393	1758	2017	2151	2185	2160	2133	2122	2095	2020	1875	1631	1308	988	775	653	585	565	559
30	1469	1918	2198	2268	2215	2118	2081	2094	2124	2120	2039	1766	1352	933	681	544	496	497	497
35	1568	2082	2322	2292	2121	1969	1905	1949	2051	2157	2153	1904	1418	895	581	462	452	353	333
40	1707	2200	2371	2231	1950	1709	1647	1729	1912	2121	2209	2032	1544	885	492	445	303	302	299
45	1752	2219	2356	2139	1731	1401	1313	1428	1712	2068	2230	2045	1576	900	458	314	279	287	283
50	1775	2297	2329	1964	1385	972	896	1026	1406	1932	2250	2133	1574	836	405	254	259	294	289
55	1881	2362	2260	1661	876	513	470	559	923	1664	2204	2221	1645	782	271	224	240	310	317
60	2045	2414	2047	1170	381	258	246	278	419	1199	2029	2324	1808	795	204	197	227	324	351
65	2200	2349	1688	518	227	163	145	171	237	568	1740	2341	2059	816	178	177	223	327	372
70	1834	1927	1073	237	146	97.7	84.2	101	153	248	1185	2091	1864	628	150	177	214	303	357
75	1302	1301	441	156	85.7	53.5	45.8	55.9	90.7	165	542	1327	1303	304	109	172	170	237	257
80	479	392	137	71.0	38.3	22.2	18.0	23.5	41.0	80.4	149	503	519	110	62.4	85.7	104	120	120
85	67.5	48.3	25.1	11.6	5.41	3.30	2.84	3.64	6.85	14.3	30.7	63.9	74.6	27.0	17.9	25.5	28.0	27.7	26.1
90	1.36	0.91	0.46	0.56	0.46	0.46	0.51	0.51	0.51	0.56	0.66	0.96	1.31	1.11	3.00	0.45	1.21	4.02	0.81
95	1.31	1.01	0.40	0.54	0.41	0.47	0.46	0.56	0.46	0.53	0.61	1.00	1.76	1.71	0.96	0.51	0.58	1.01	0.59
100	2.66	1.11	0.48	0.52	0.41	0.49	0.46	0.60	0.46	0.49	0.61	1.21	2.72	2.77	1.92	0.81	0.58	0.43	0.41
105	3.07	1.86	0.51	0.51	0.41	0.50	0.46	0.65	0.46	0.46	0.61	1.79	3.27	3.42	2.48	1.32	0.66	0.56	0.51
110	3.57	2.09	0.55	0.49	0.41	0.52	0.46	0.70	0.46	0.55	0.71	2.13	3.47	3.83	3.39	2.12	1.01	0.76	0.68
115	3.64	2.16	0.66	0.48	0.41	0.53	0.46	0.74	0.46	0.53	1.07	2.43	3.75	4.48	3.79	2.68	1.57	1.01	0.91
120	3.71	2.21	0.81	0.46	0.41	0.55	0.46	0.79	0.46	0.52	1.22	2.66	3.79	4.68	4.10	3.18	2.28	1.83	1.42
125	3.70	2.32	1.16	0.58	0.41	0.66	0.48	1.02	0.46	0.61	1.22	2.79	3.77	4.76	4.50	3.84	3.04	2.43	2.38
130	3.69	2.32	1.16	0.61	0.55	0.73	0.56	0.97	0.56	0.61	1.22	2.79	3.75	4.80	4.95	4.24	4.16	3.35	3.29
135	3.68	2.32	1.22	0.81	1.88	0.75	0.63	1.17	1.13	0.86	1.22	2.79	3.73	4.68	5.00	4.41	4.92	4.21	4.06
140	3.68	2.32	1.51	1.04	1.54	1.07	1.06	1.32	1.22	1.13	1.48	2.79	3.63	4.43	5.10	4.90	5.08	4.96	4.71
145	3.32	2.42	1.98	1.26	1.55	1.12	1.27	1.37	1.28	1.28	1.78	2.79	3.54	4.33	5.10	5.20	5.15	5.35	5.14
150	3.38	2.67	2.07	1.61	1.56	1.17	1.27	1.37	1.33	1.53	1.99	2.79	3.53	4.15	4.44	5.20	5.17	5.37	5.21
155	3.57	2.88	2.23	2.07	1.62	1.42	1.42	1.44	1.47	1.94	2.07	2.79	3.93	4.01	4.41	4.95	4.79	5.27	5.17
160	3.75	2.94	2.27	2.18	2.00	1.87	1.82	1.83	1.88	2.04	2.24	2.79	4.09	3.98	4.43	4.60	4.74	5.07	5.09
165	3.79	3.01	2.73	2.73	2.48	1.93	2.06	2.21	2.29	2.50	2.66	2.99	4.38	4.17	4.47	4.54	4.68	5.09	5.12
170	3.87	3.47	3.43	3.33	3.09	2.89	2.93	2.90	2.95	3.00	3.06	3.48	4.42	4.29	4.54	4.48	4.63	5.06	5.12
175	4.02	3.92	3.69	3.83	3.70	3.59	3.59	3.61	3.61	3.52	3.57	3.60	4.46	4.40	4.29	4.42	4.58	4.71	4.71
180	4.08	3.88	3.94	4.29	4.45	4.20	4.20	3.97	4.12	3.67	3.57	3.60	4.48	4.07	3.89	3.84	4.36	4.25	4.15

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
Operators:CS01
Test Date:2021-07-17

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 0.0%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED40-16(5050 40K RA70 T2A)L

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.10V I:0.2118A P:39.640W PF:0.8137 Freq:50.01Hz Lamp Flux:4961.15x1 lm		
NAME: D-20HLED40-16	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

Table--2

UNIT: cd

C(DEG) γ (DEG)	285	300	315	330	345													
0	1187	1187	1187	1187	1187													
5	1003	1009	1045	1084	1134													
10	860	876	926	996	1091													
15	776	785	834	915	1054													
20	685	706	760	840	1027													
25	582	607	671	772	1002													
30	495	512	567	691	980													
35	359	459	482	607	971													
40	302	308	463	534	1000													
45	290	277	357	494	1069													
50	293	257	264	415	971													
55	304	237	230	300	951													
60	308	222	203	225	1025													
65	317	223	183	194	1067													
70	299	216	190	162	806													
75	223	162	178	115	438													
80	113	95.4	99.8	68.1	147													
85	25.6	26.8	25.7	21.9	34.3													
90	3.67	0.41	0.51	0.76	1.37													
95	0.99	0.41	0.56	1.07	1.87													
100	0.46	0.56	0.82	1.89	2.79													
105	0.51	0.76	1.28	2.50	3.40													
110	0.63	1.02	1.84	3.13	3.90													
115	0.87	1.48	2.35	3.47	4.10													
120	1.59	2.14	2.76	3.87	4.40													
125	2.24	2.75	3.37	4.39	4.45													
130	3.21	3.46	3.93	4.38	4.43													
135	4.08	4.58	4.35	4.38	4.42													
140	5.15	5.12	4.69	4.38	4.31													
145	5.30	5.19	4.70	4.38	3.95													
150	5.30	5.27	4.71	4.38	3.84													
155	5.29	5.34	4.72	4.38	3.83													
160	5.19	5.18	4.72	4.38	3.82													
165	5.22	5.16	4.73	4.38	3.81													
170	5.24	5.14	4.74	4.38	3.80													
175	4.68	4.73	4.50	4.38	3.70													
180	4.18	4.12	4.03	3.82	3.55													

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 0.0DEG
Operators:CS01
Test Date:2021-07-17

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity: 0.0%
Test Distance:26.000m [K=1.0000]
Remarks: D-20HLED40-16(5050 40K RA70 T2A)L