

# Family Correlated Photometric Data

The following photometric information is developed using correlated data. Finelite considers a family to be a group of luminaires where critical performance metrics such as photometric performance, thermal performance, and electrical performance can be accurately projected via a combination of LM79 tests at the luminaire level and well-documented specifications at the component level.

For more information, please download [Finelite's Family Correlated White Paper](#)

Additional links:

- [Solid-State Lighting: Early Lessons Learned on the Way to Market](#)  
(U.S. Department of Energy)
- [Lighting Facts®](#)
- [Design Lights Consortium®](#)

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-B-8TW-ASY-DAO-ITL89599-KPL2008-3.902.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89599-KPL2008-3.902 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/24/17

[ISSUEDATE]08/06/2021

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-2-ID-4ft-B-B-8TW-ASY-DAO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 39.8 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 42.0 WATTS

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL89599 and KPL2008-3. For further details on Finelite family correlation files, go to

[more][http://www.finelite.com/download\\_files/series\\_downloads/photometry\\_pdf/FL\\_Family\\_Correlation\\_WhitePaper.pdf](http://www.finelite.com/download_files/series_downloads/photometry_pdf/FL_Family_Correlation_WhitePaper.pdf)

[\_ABSOLUTE LUMENS]4137

[\_CONVERT] Photometric web converted from original test data

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4140
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	104
Total Luminaire Watts	39.8
Ballast Factor	1.00
CIE Type	General Diffuse
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.18 ft
Luminous Width (90-270)	4.00 ft
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	11958	12383	8999
55	10149	11245	8027
65	8379	9736	7097
75	6990	8274	5956
85	6975	8242	4954

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## CANDELA TABULATION

	<u>0</u>	<u>10</u>	<u>20</u>	<u>30</u>	<u>40</u>	<u>50</u>	<u>60</u>	<u>70</u>	<u>80</u>	<u>90</u>
0.0	731.898	731.898	731.898	731.898	731.898	731.898	731.898	731.898	731.898	731.898
2.5	756.815	755.580	751.972	754.072	751.920	747.504	747.020	748.420	747.077	735.666
5.0	785.231	782.756	778.721	777.804	771.669	763.866	759.131	755.255	749.336	731.898
7.5	809.237	807.029	801.110	798.794	790.075	777.377	768.658	760.155	749.228	726.190
10.0	829.151	827.591	821.075	815.697	804.286	788.083	775.493	762.631	746.536	717.852
12.5	848.524	845.940	837.329	830.386	816.016	795.459	779.312	762.199	741.369	707.301
15.0	859.503	856.759	849.008	840.937	820.591	799.926	780.012	759.131	734.158	694.814
17.5	863.703	860.635	853.367	844.921	828.183	801.702	777.485	752.672	723.339	679.260
20.0	859.935	857.192	850.892	843.197	826.351	799.602	772.050	743.417	710.801	664.298
22.5	850.140	847.448	842.065	834.910	819.248	792.283	764.350	730.498	694.598	645.568
25.0	833.135	832.054	828.235	821.940	807.569	780.553	752.455	716.236	677.649	625.494
27.5	814.832	810.688	807.837	803.534	790.291	766.018	737.601	698.906	657.843	602.621
30.0	787.923	784.804	784.048	780.821	770.058	745.352	717.636	678.349	634.538	579.696
32.5	758.215	756.280	756.223	754.931	747.669	724.471	695.514	656.387	611.181	553.699
35.0	722.479	724.363	723.663	727.482	720.647	697.722	669.841	632.597	585.667	528.514
37.5	685.344	685.827	688.736	694.222	688.844	669.573	641.373	604.181	557.842	502.193
40.0	645.300	646.592	650.035	658.003	656.067	639.540	612.524	576.629	529.858	476.736
42.5	600.521	603.805	610.156	620.383	618.875	605.364	580.072	546.488	500.957	447.351
45.0	556.931	559.407	568.553	578.348	582.064	571.404	560.858	513.979	469.257	419.151
47.5	515.596	515.647	524.907	537.609	543.904	536.045	512.579	481.471	439.173	390.194
50.0	468.665	469.041	480.719	494.714	502.301	499.558	476.252	446.168	407.524	360.969
52.5	425.286	427.386	439.384	451.819	465.057	462.046	439.600	412.367	376.580	332.769
55.0	383.416	385.675	396.597	413.232	425.502	424.154	404.997	378.515	345.739	303.277
57.5	340.788	345.472	355.050	372.432	385.026	383.843	367.161	344.556	314.147	275.828
60.0	302.793	306.128	315.547	330.885	344.988	346.331	332.228	310.112	285.031	249.779
62.5	264.685	270.017	280.187	293.482	307.152	308.496	296.977	277.120	254.514	218.382
65.0	233.257	235.141	244.287	256.563	268.344	273.676	264.257	244.287	224.589	197.552
67.5	201.932	202.473	212.643	221.738	233.308	239.068	230.565	213.667	197.357	172.713
70.0	172.764	173.948	181.267	191.062	201.984	205.859	199.889	184.551	169.589	147.070
72.5	144.023	144.831	151.934	158.713	169.589	173.356	166.572	155.970	145.423	123.955
75.0	119.158	120.558	125.777	132.880	139.556	142.567	138.748	128.953	118.026	101.535
77.5	95.044	97.520	100.804	107.372	112.699	114.691	111.839	104.463	96.177	81.590
80.0	74.487	75.939	78.687	83.206	86.490	87.834	85.523	81.215	75.187	61.954
82.5	55.649	56.406	58.557	61.193	64.209	64.960	63.560	60.925	58.341	44.980
85.0	40.044	39.493	41.022	46.822	47.018	47.615	46.426	44.774	37.058	28.437
87.5	24.037	25.112	24.824	26.080	27.150	27.119	25.889	23.311	20.712	13.413
90.0	18.529	18.529	17.500	15.441	13.382	10.294	7.206	4.632	2.059	0.000
92.5	40.133	40.648	40.133	38.075	34.474	32.415	30.872	28.299	24.697	12.349
95.0	80.267	81.296	80.267	77.694	75.121	72.549	68.947	62.773	51.968	30.357
97.5	121.944	122.973	121.429	121.429	121.429	119.885	113.197	100.333	79.238	49.395
100.0	157.961	160.533	163.620	171.339	176.998	174.426	162.077	139.438	105.993	68.947
102.5	202.725	208.385	218.675	234.626	243.373	236.169	213.530	176.998	130.691	87.985
105.0	263.954	274.759	295.855	315.407	319.009	302.544	264.983	211.472	153.845	107.537
107.5	358.627	370.976	393.101	406.479	403.392	373.034	314.378	241.829	175.455	127.603
110.0	479.542	485.716	499.609	505.269	488.289	435.807	355.540	268.070	196.036	147.670
112.5	598.913	602.515	609.718	601.486	562.896	486.231	387.441	291.738	216.103	167.737
115.0	714.682	713.653	709.022	680.723	619.494	524.306	413.682	312.834	236.684	188.833
117.5	807.812	800.094	783.629	739.894	660.142	550.547	433.749	332.386	257.265	210.443
120.0	874.187	863.381	836.111	778.484	684.839	568.556	451.243	351.424	278.361	231.538
122.5	916.893	903.515	868.012	799.580	699.761	581.933	466.679	370.462	299.457	252.634
125.0	936.959	922.552	881.904	808.327	707.479	592.739	481.600	389.499	320.038	273.730
127.5	941.075	926.154	882.933	808.841	711.080	602.000	497.036	408.537	340.619	294.311
130.0	933.872	918.951	876.245	805.239	712.624	610.747	512.986	428.089	362.229	315.921
132.5	920.494	907.631	866.983	799.580	714.168	620.009	528.422	448.156	383.839	337.532

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-B-8TW-ASY-DAO-ITL89599-KPL2008-3.902.IES

## CANDELA TABULATION - (Cont.)

135.0	905.573	892.710	855.149	793.920	716.226	629.785	543.858	467.193	405.450	359.656
137.5	890.651	878.303	844.344	789.289	719.313	640.075	560.323	486.745	426.545	381.781
140.0	874.701	864.925	835.082	785.687	722.400	650.366	576.274	506.298	447.641	403.392
142.5	861.838	853.605	827.364	783.629	726.002	660.657	592.224	525.335	469.251	425.002
145.0	851.033	843.829	820.161	781.057	730.118	671.462	607.660	543.344	489.318	446.612
147.5	841.256	834.568	813.986	778.998	734.234	681.238	622.067	560.838	509.385	467.708
150.0	830.451	825.306	807.812	777.455	738.351	690.499	634.415	576.788	528.422	489.318
152.5	821.704	817.074	802.667	776.940	741.438	697.703	645.735	591.710	546.431	509.385
155.0	814.501	809.870	797.521	774.882	742.981	702.848	654.482	604.573	562.896	528.422
157.5	807.298	802.667	791.862	771.280	741.438	704.906	661.171	616.407	578.846	546.431
160.0	797.521	792.891	782.600	764.592	737.836	704.906	665.802	625.668	592.224	562.896
162.5	784.658	780.542	771.280	754.816	730.633	702.333	668.375	633.901	604.573	577.817
165.0	768.193	764.077	755.330	741.438	721.371	697.188	668.889	639.561	614.863	591.195
167.5	748.641	745.039	737.836	726.002	709.537	689.985	667.345	643.163	622.581	602.515
170.0	726.002	722.915	717.255	707.993	696.159	681.238	663.229	644.706	628.756	611.262
172.5	702.848	700.790	696.674	690.499	681.238	669.918	657.569	644.192	631.843	618.465
175.0	678.150	676.607	673.520	669.918	664.258	657.569	649.851	641.104	632.872	624.639
177.5	652.939	652.424	651.395	649.337	647.279	644.192	640.075	635.959	631.843	627.727
180.0	628.756	628.756	628.756	628.756	628.756	628.756	628.756	628.756	628.756	628.756

## Vert. Angles

## Horizontal Angles

	<u>100</u>	<u>110</u>	<u>120</u>	<u>130</u>	<u>140</u>	<u>150</u>	<u>160</u>	<u>170</u>	<u>180</u>
0.0	731.898	731.898	731.898	731.898	731.898	731.898	731.898	731.898	731.898
2.5	735.450	726.890	717.260	710.317	707.085	704.290	699.230	699.014	701.165
5.0	726.731	714.193	700.146	690.135	685.452	680.392	673.181	674.200	672.641
7.5	715.320	698.746	681.144	669.522	663.597	657.303	649.016	650.576	649.176
10.0	701.974	681.576	662.954	649.500	642.232	634.697	628.294	628.027	628.402
12.5	686.579	663.062	643.200	629.318	621.351	613.389	605.364	605.689	606.656
15.0	670.649	645.084	624.367	609.081	600.794	591.967	577.756	584.323	584.807
17.5	651.868	624.902	604.397	588.143	578.996	570.977	564.894	563.977	565.110
20.0	632.113	604.613	583.356	568.177	558.918	551.331	546.380	545.196	545.196
22.5	610.048	582.815	562.258	547.831	538.953	533.250	527.274	527.434	526.898
25.0	587.983	562.094	539.385	526.142	518.715	512.960	508.277	508.009	508.812
27.5	565.161	539.869	517.479	506.393	499.609	493.906	489.387	490.406	490.514
30.0	540.837	516.028	495.466	485.079	479.695	473.452	470.281	463.714	472.217
32.5	516.347	492.347	472.484	464.414	458.330	453.754	451.443	452.035	453.595
35.0	492.022	466.781	449.343	442.832	437.881	434.005	433.141	433.197	433.573
37.5	464.841	442.400	428.246	420.762	416.403	413.983	412.532	413.443	414.416
40.0	438.900	417.803	403.973	399.073	394.821	392.937	393.046	393.210	395.037
42.5	411.884	393.210	380.940	377.064	374.156	373.024	373.672	373.348	374.156
45.0	386.102	368.397	357.686	354.134	353.383	351.499	352.842	354.618	338.853
47.5	358.869	343.048	333.628	331.585	330.237	329.753	331.693	333.737	335.188
50.0	331.637	317.591	310.328	308.980	308.280	308.444	310.220	312.479	313.231
52.5	305.320	292.942	286.430	285.406	285.298	285.566	288.474	291.382	292.241
55.0	279.271	268.401	263.393	261.725	262.157	263.717	267.809	268.560	269.425
57.5	253.490	243.911	240.252	238.100	239.819	241.111	245.311	246.819	247.571
60.0	224.028	213.791	212.345	213.523	212.890	214.512	219.983	213.662	225.506
62.5	203.034	196.193	193.800	193.769	194.742	197.912	200.810	202.375	202.555
65.0	178.338	173.233	171.287	171.467	173.912	176.666	178.328	180.407	179.867
67.5	155.733	150.277	147.791	148.295	151.986	153.355	156.042	157.030	155.671
70.0	132.391	128.654	126.946	127.543	129.236	131.496	133.071	133.812	135.819
72.5	111.577	108.437	105.570	106.811	108.319	109.986	110.619	111.541	111.957
75.0	89.959	87.221	85.245	86.253	87.417	87.854	80.020	88.456	90.073
77.5	70.668	68.208	67.076	66.715	67.096	67.909	67.894	67.657	67.611
80.0	51.789	50.188	49.524	49.092	48.541	47.306	47.605	47.260	47.553

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-B-8TW-ASY-DAO-ITL89599-KPL2008-3.902.IES****CANDELA TABULATION - (Cont.)**

82.5	35.571	33.481	31.989	31.093	31.016	30.347	30.161	29.631	28.710
85.0	21.026	18.962	17.371	15.601	14.756	13.624	12.584	11.792	10.484
87.5	6.912	5.343	4.210	3.196	2.275	1.518	0.978	0.726	0.659
90.0	2.059	4.632	6.691	9.265	10.809	12.353	13.382	13.897	13.897
92.5	15.950	16.980	19.038	20.581	22.125	22.639	23.154	23.668	23.668
95.0	33.444	34.988	37.561	40.648	42.191	42.706	42.706	41.677	40.648
97.5	50.424	52.482	56.598	61.229	64.316	65.860	66.889	65.860	65.345
100.0	67.918	70.491	75.121	80.781	84.897	88.499	91.072	90.557	90.557
102.5	85.927	90.043	95.703	101.877	107.022	110.624	113.197	113.711	113.711
105.0	103.421	109.080	117.313	126.060	131.205	133.778	135.321	134.807	134.807
107.5	121.944	127.089	135.321	145.097	151.786	155.388	157.961	156.932	155.903
110.0	139.952	143.039	152.815	164.650	172.368	175.969	179.056	179.056	179.056
112.5	157.961	158.990	169.795	183.687	192.949	198.094	201.696	201.696	201.696
115.0	175.969	174.940	185.745	201.181	212.501	219.704	224.850	225.364	225.879
117.5	193.978	189.347	200.667	217.646	230.509	239.771	246.460	247.489	248.518
120.0	212.501	204.783	215.588	232.568	246.460	257.779	267.041	268.070	269.614
122.5	230.509	219.704	229.480	246.460	261.381	274.759	285.564	287.108	289.166
125.0	249.547	235.655	243.887	259.323	274.759	290.709	303.058	305.116	307.174
127.5	268.070	250.576	256.750	270.643	286.593	304.087	317.980	321.067	324.154
130.0	286.593	265.498	269.099	280.933	296.369	314.378	329.299	334.445	339.075
132.5	306.145	280.419	281.448	291.224	304.602	322.096	336.503	343.192	349.366
135.0	325.183	295.340	293.282	300.486	312.320	328.270	341.648	348.337	354.511
137.5	344.735	310.776	305.631	309.233	318.494	332.901	345.250	350.909	356.569
140.0	364.802	327.756	318.494	319.009	325.183	337.017	347.308	352.453	357.598
142.5	385.383	346.793	333.415	328.785	331.357	340.619	348.337	352.453	356.569
145.0	406.993	366.860	349.366	339.590	337.532	344.221	349.366	352.453	355.540
147.5	428.089	387.441	365.316	349.880	344.221	347.822	351.424	353.482	355.540
150.0	448.670	406.479	381.267	361.200	351.938	353.482	354.511	355.540	356.055
152.5	469.251	427.574	398.761	374.578	361.200	359.656	358.113	358.113	358.113
155.0	489.318	448.670	418.313	391.557	375.092	368.918	363.773	362.744	361.200
157.5	508.870	468.737	439.409	413.168	394.130	382.296	373.034	370.462	368.404
160.0	528.422	491.891	463.591	438.380	417.284	400.819	387.441	383.325	379.209
162.5	546.945	514.530	487.774	463.077	442.496	426.031	412.139	405.450	399.275
165.0	564.954	537.684	512.472	488.289	468.737	454.844	443.010	436.321	430.147
167.5	580.390	557.750	535.626	514.015	496.522	483.144	472.339	467.193	462.563
170.0	593.768	575.759	558.780	541.800	527.393	514.530	504.239	499.094	494.463
172.5	605.602	592.739	580.390	568.556	557.750	548.489	540.771	537.169	533.053
175.0	615.892	607.145	599.427	591.710	585.021	579.361	574.730	572.157	570.099
177.5	623.610	618.980	615.378	611.776	609.203	606.631	604.058	603.029	601.486
180.0	628.756	628.756	628.756	628.756	628.756	628.756	628.756	628.756	628.756

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-B-8TW-ASY-DAO-ITL89599-KPL2008-3.902.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	269.52	N.A.	6.50
0-30	570.62	N.A.	13.80
0-40	923.70	N.A.	22.30
0-60	1567.2	N.A.	37.90
0-80	1893.08	N.A.	45.70
0-90	1927.59	N.A.	46.60
10-90	1858.11	N.A.	44.90
20-40	654.18	N.A.	15.80
20-50	1002.97	N.A.	24.20
40-70	853.67	N.A.	20.60
60-80	325.88	N.A.	7.90
70-80	115.70	N.A.	2.80
80-90	34.51	N.A.	0.80
90-110	266.40	N.A.	6.40
90-120	618.62	N.A.	14.90
90-130	1022.61	N.A.	24.70
90-150	1729.58	N.A.	41.80
90-180	2212.9	N.A.	53.40
110-180	1946.5	N.A.	47.00
0-180	4140.49	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	69.48
10-20	200.05
20-30	301.10
30-40	353.08
40-50	348.79
50-60	294.70
60-70	210.18
70-80	115.70
80-90	34.51
90-100	62.28
100-110	204.12
110-120	352.22
120-130	403.99
130-140	379.83
140-150	327.14
150-160	256.43
160-170	167.71
170-180	59.18

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-B-8TW-ASY-DAO-ITL89599-KPL2008-3.902.IES

## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

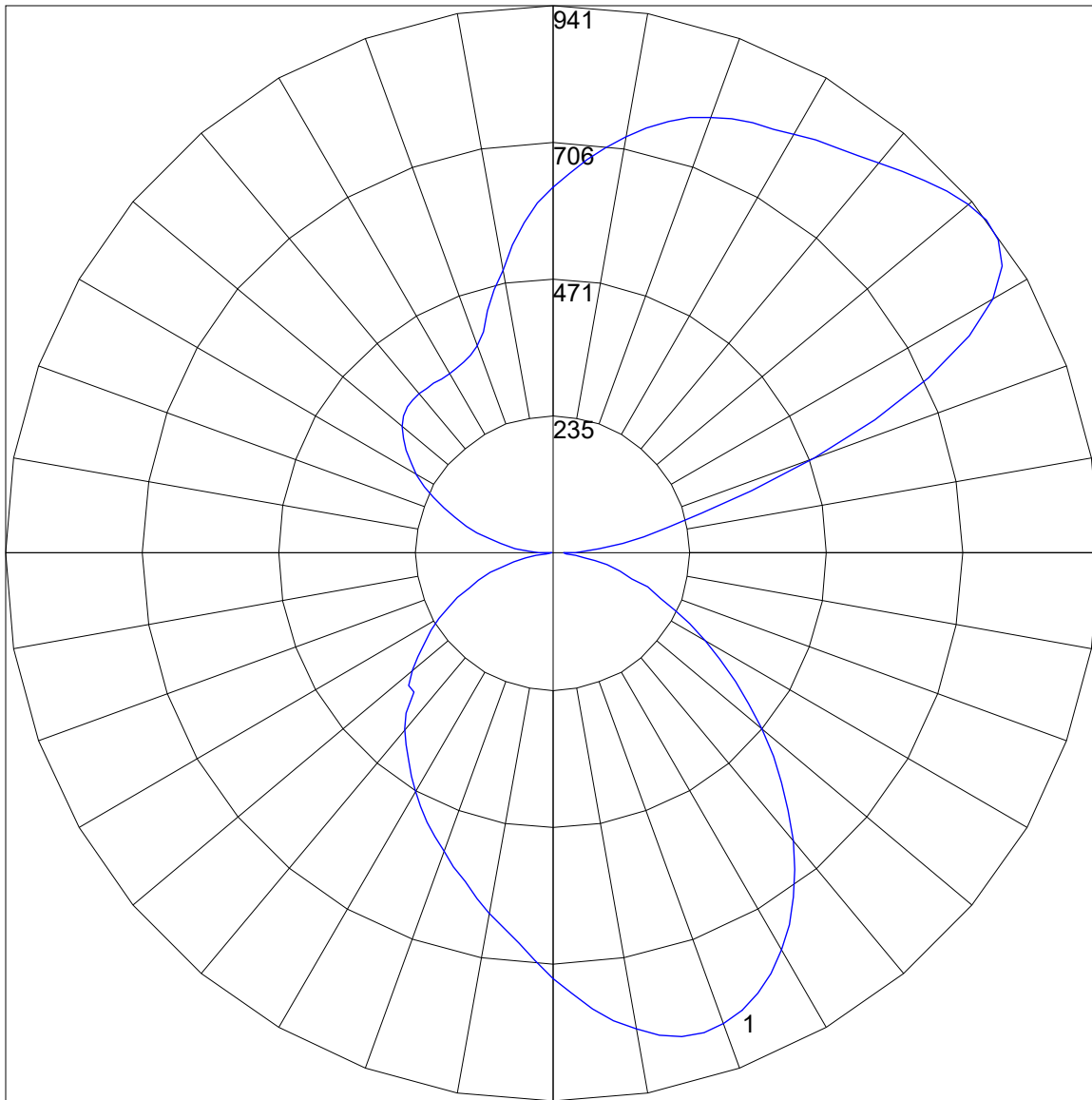
Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	106	106	106	106	98	98	98	98	81	81	81	67	67	67	53	53	53	47
1	97	93	89	86	89	85	82	79	71	69	67	59	57	56	47	46	45	39
2	88	81	75	70	81	75	69	65	63	59	56	52	49	47	41	40	38	33
3	81	71	64	58	74	66	59	54	55	51	47	46	42	39	37	34	32	28
4	74	63	55	49	68	58	51	46	49	44	40	41	37	34	33	30	28	24
5	68	56	48	42	62	52	45	40	44	39	34	37	32	29	30	27	24	21
6	62	50	42	37	57	47	40	34	40	34	30	33	29	26	27	24	21	18
7	58	46	38	32	53	42	35	30	36	30	26	30	26	23	25	21	19	16
8	54	41	34	28	49	38	31	27	33	27	23	27	23	20	23	19	17	15
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	21	18	15	13
10	47	35	27	23	43	32	26	21	28	22	19	23	19	16	19	16	14	12

IES INDOOR REPORT

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POLAR GRAPH



Maximum Candela = 941.075 Located At Horizontal Angle = 0, Vertical Angle = 127.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)