

# Day-Brite CFI

by 

## Recessed

SofTrace LED 1x4

Up to 4000 lumens



Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Cat.No: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Lamps: \_\_\_\_\_ Qty: \_\_\_\_\_  
 Notes: \_\_\_\_\_

Day-Brite / CFI SofTrace LED recessed brings new meaning to the concept of combining style with performance. Equipped with a fresh streamlined design and innovative technology, SofTrace provides a huge step forward for the lighting industry. The sleek profile design belies the true “horsepower under the hood”. This architectural product delivers leading edge performance for the most environmentally conscious user.

**Ordering guide – Standard configurations available with all choices, unless otherwise noted. Base configurations selections indicated by blue.**

**Example: 1STG40L840-4-D-UNV-DIM**

Width	Family	Ceiling Type	Lumen Package <sup>1</sup>	Color Temp.	Length	Center Diffuser	Voltage	Driver	Options
1	ST			—	4	—	—	—	
1 1'	ST Softrace	G Grid F Flange Z Z Spline / Modular	<b>Standard configurations</b> <b>26L</b> 2600 nominal delivered lumens <b>29L</b> 2900 nominal delivered lumens <b>35L</b> 3500 nominal delivered lumens <b>40L</b> 4000 nominal delivered lumens  <u>Base configuration</u> <b>38B</b> 3800 nominal delivered lumens	<b>830</b> 80 CRI, 3000K <b>835</b> 80 CRI, 3500K <b>840</b> 80 CRI, 4000K <b>850</b> 80 CRI, 5000K	4 4'	<b>D</b> Diffuse <b>PMW</b> Round perf w/ white overlay	<b>UNV</b> Universal voltage 120-277V <b>347</b> 347V	<b>DIM<sup>2</sup></b> 0-10V dimming <b>SDIM</b> Step dimming to 40% input power <b>L3D</b> Lutron Hi-Lume A 1% dimming <b>LDE</b> Lutron LDE5, 5% dimming <b>DALI</b> DALI dimming	<b>AG</b> Antimicrobial paint <b>F1</b> 3/8" flex, 3 wire 18 gauge 6' <b>F2</b> 3/8" flex, 4 wire 18 gauge 6' <b>F1/D</b> 3/8" twin flex, 3 wire 18 gauge 6' for dimmable luminaires <b>F2/5W</b> 3/8" single flex, 5 wire 18 gauge 6' for dimmable luminaires <b>F2/6W</b> 3/8" single flex, 6 wire 18 gauge 6' for dimmable and emergency luminaires <b>GLR</b> Fusing, fast blow <b>PAF</b> Housing painted after fabrication <b>EMLED</b> Bodine BSL310 10W battery pack (requires driver enclosure on top of luminaire) <b>EMLED<sup>3</sup></b> Bodine BSL17 7W battery pack (requires driver enclosure on top of luminaire) <b>CHIC</b> Chicago plenum rated

### Footnotes:

- The lumen values stated above are relevant only to the “D” center diffuser option. For lumen values with the other diffusers, check the photometrics tests online for those specific catalog numbers.
- 0-10V dimming to 1% for Standard configurations and 5% for Base configurations.
- Available only with Base configurations.

### Accessories (order separately)

- FMA14** 1'x4' “F” mounting frame for NEMA “F” mounting

### Energy data

Luminaire	Catalog Number	Input Power	Efficacy
1x4 Standard	1STG26L840	23	115
	1STG29L840	26	115
	1STG35L840	31	114
	1STG40L840	35	113
1x4 Base	1STG38B840	34	113



# 1ST SofTrace LED recessed 1x4

Up to 4000 lumens

## Application

- Subtle enclosure curves provide architectural styling to complement any space.
- Smooth brightness across the face of the luminaire prevents glare and provides excellent visual comfort.
- Directs a controlled amount of light to higher angles to eliminate “cave effect” without creating glare.
- Ideal for modern offices, schools and retail environments.
- Excellent luminaire efficacy provides significant energy savings.
- Lumen packages up to 4,000 initial lumens, providing flexibility to optimize light levels for a specific application.
- High CRI source provides excellent color rendering.
- LEDs are an excellent source for use with controls since frequent switching does not affect the life of the light source.
- Grid, Flange or Z-spline/ Modular models available.

## Construction/Finish

- T-bar grid clips are built into luminaire ends for quick and easy installation, no extra parts required.
- Suitable for end-to-end mounting.
- K.O. in luminaire ends for thru wiring or conduit entry in shallow plenums.
- Many luminaire components, such as reflectors, refractors, lenses, sockets, lampholders, and LEDs are made from various types of plastics which can be adversely affected by airborne contaminants. If sulfur based chemicals, petroleum based products, cleaning solutions, or other contaminants are expected in the intended area of use, consult factory for compatibility.

## Electrical

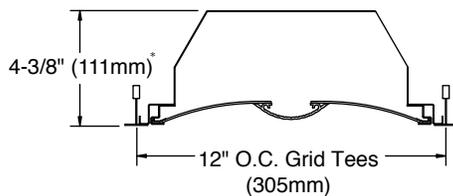
- Driver and LED boards are easily accessible from below. LED boards are individually replaceable if required.
- Standard configurations are 0-10V dimming to 1% and Base configurations are to 5%.

- Five year limited luminaire warranty includes LED boards and driver. Visit [www.philips.com/warranties](http://www.philips.com/warranties) for complete warranty information.
- Predicted L70 lumen maintenance up to 70,000 hours for Standard configurations and 50,000 hours for Base configurations.
- To estimate lumen output in emergency mode, multiply emergency pack wattage by luminaire efficacy, then by 1.10. Typical lumen output is 1300lm for EMLED and 900lm for EMLED7.
- cETLus listed to UL Standards, suitable for damp locations.

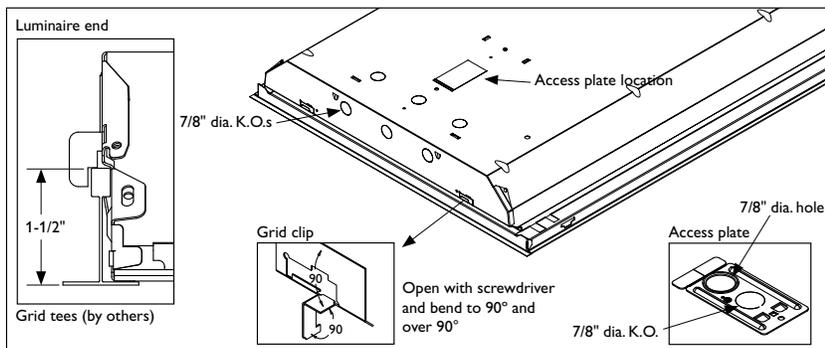
## Enclosure

- Choice of two enclosures:
  - Single piece thermo formed acrylic lens with ribbed center diffuser (D)
  - Three piece acrylic lens with round perforated steel center diffuser (PMW)

## Dimensions



\* EMLED and EMLED7 are 1-3/4" (45mm) deeper



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Up to 4000 lumens

## Ceiling configuration

1    ST    G    27L840

Ceiling type

G = Grid (NEMA G)

12"  
(305mm)

(NEMA Type G)  
Lay-in acoustical ceilings using exposed grid suspension, with tees for luminaires on 12" x 48" spacing.

F = Flange (NEMA F)

4" Max.  
1-5/8" Min.

13"  
(330mm)

(NEMA Type F)  
Flange for acoustical ceilings using concealed mechanical suspension. Swing-jack mounting brackets: adjustment 4" max and 1-5/8" min. Refer to sheet 801-CL for cut-out information.

Z = Modular & "Z" Spline (NEMA F)

4" Max.  
1-5/8" Min.

12"  
(305mm)

(NEMA M/Z)  
Modular and "Z" Spline using concealed mechanical suspension. Swing-jack mounting brackets: adjustment 4" max. and 1-5/8" min.

## 1x4 SofTrace LED, 3800 nominal delivered lumens, diffuse

LER – 114

<p><b>Catalog No.</b> 1STG38B840-4-D-UNV</p> <p><b>Test No.</b> 38129</p> <p><b>S/MH</b> 1.2</p> <p><b>Lamp Type</b> LED</p> <p><b>Lumens/Lamp</b> 3824</p> <p><b>Input Watts</b> 34</p> <p>Comparative yearly lighting energy cost per 1000 lumens – <b>\$2.11</b> based on 3000 hrs. and \$.08 pwr KWH.</p> <p>The photometric results were obtained in the Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.</p> <p>Photometric values based on test performed in compliance with LM-79.</p>	<p style="text-align: center;"><b>Candela distribution</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Vertical Angle</th> <th colspan="4">Horizontal Angle</th> </tr> <tr> <th>0°</th> <th>45°</th> <th>90°</th> <th>-45°</th> </tr> </thead> <tbody> <tr><td>0</td><td>1603</td><td>1603</td><td>1603</td><td>1603</td></tr> <tr><td>5</td><td>1567</td><td>1598</td><td>1611</td><td>1598</td></tr> <tr><td>15</td><td>1497</td><td>1532</td><td>1545</td><td>1532</td></tr> <tr><td>25</td><td>1359</td><td>1384</td><td>1376</td><td>1384</td></tr> <tr><td>35</td><td>1159</td><td>1161</td><td>1120</td><td>1161</td></tr> <tr><td>45</td><td>921</td><td>894</td><td>831</td><td>894</td></tr> <tr><td>55</td><td>673</td><td>635</td><td>576</td><td>635</td></tr> <tr><td>65</td><td>404</td><td>381</td><td>344</td><td>381</td></tr> <tr><td>75</td><td>201</td><td>198</td><td>172</td><td>198</td></tr> <tr><td>85</td><td>48</td><td>48</td><td>45</td><td>48</td></tr> </tbody> </table>	Vertical Angle	Horizontal Angle				0°	45°	90°	-45°	0	1603	1603	1603	1603	5	1567	1598	1611	1598	15	1497	1532	1545	1532	25	1359	1384	1376	1384	35	1159	1161	1120	1161	45	921	894	831	894	55	673	635	576	635	65	404	381	344	381	75	201	198	172	198	85	48	48	45	48	<p style="text-align: center;"><b>Light Distribution</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Degrees</th> <th>Lumens</th> <th>% Linaire</th> </tr> </thead> <tbody> <tr><td>0-30</td><td>1215</td><td>31.8</td></tr> <tr><td>0-40</td><td>1934</td><td>50.6</td></tr> <tr><td>0-60</td><td>3179</td><td>83.1</td></tr> <tr><td>0-90</td><td>3823</td><td>100.0</td></tr> </tbody> </table>	Degrees	Lumens	% Linaire	0-30	1215	31.8	0-40	1934	50.6	0-60	3179	83.1	0-90	3823	100.0	<p style="text-align: center;"><b>Average Luminance</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Angle</th> <th>End</th> <th>45'</th> <th>Cross</th> </tr> </thead> <tbody> <tr><td>45</td><td>4466</td><td>4332</td><td>4027</td></tr> <tr><td>55</td><td>4023</td><td>3793</td><td>3441</td></tr> <tr><td>65</td><td>3280</td><td>3086</td><td>2790</td></tr> <tr><td>75</td><td>2664</td><td>2615</td><td>2280</td></tr> <tr><td>85</td><td>1880</td><td>1880</td><td>1754</td></tr> </tbody> </table>	Angle	End	45'	Cross	45	4466	4332	4027	55	4023	3793	3441	65	3280	3086	2790	75	2664	2615	2280	85	1880	1880	1754																																								
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## 1x4 SofTrace LED, 2600 nominal delivered lumens, diffuse

LER – 115

<p><b>Catalog No.</b> 1STG26L840-4-D-UNV-DIM</p> <p><b>Test No.</b> 35064</p> <p><b>S/MH</b> 1.2</p> <p><b>Lamp Type</b> LED</p> <p><b>Lumens/Lamp</b> 2612</p> <p><b>Input Watts</b> 22.6</p> <p>Comparative yearly lighting energy cost per 1000 lumens – <b>\$2.07</b> based on 3000 hrs. and \$.08 pwr KWH.</p> <p>The photometric results were obtained in the Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.</p> <p>Photometric values based on test performed in compliance with LM-79.</p>	<p style="text-align: center;"><b>Candela distribution</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Vertical Angle</th> <th colspan="4">Horizontal Angle</th> </tr> <tr> <th>0°</th> <th>45°</th> <th>90°</th> <th>-45°</th> </tr> </thead> <tbody> <tr><td>0</td><td>1082</td><td>1082</td><td>1082</td><td>1082</td></tr> <tr><td>5</td><td>1066</td><td>1079</td><td>1085</td><td>1079</td></tr> <tr><td>15</td><td>1021</td><td>1038</td><td>1043</td><td>1038</td></tr> <tr><td>25</td><td>928</td><td>938</td><td>932</td><td>938</td></tr> <tr><td>35</td><td>793</td><td>787</td><td>759</td><td>787</td></tr> <tr><td>45</td><td>631</td><td>606</td><td>563</td><td>606</td></tr> <tr><td>55</td><td>459</td><td>427</td><td>390</td><td>427</td></tr> <tr><td>65</td><td>293</td><td>272</td><td>248</td><td>272</td></tr> <tr><td>75</td><td>144</td><td>140</td><td>121</td><td>140</td></tr> <tr><td>85</td><td>32</td><td>31</td><td>29</td><td>31</td></tr> </tbody> </table>	Vertical Angle	Horizontal Angle				0°	45°	90°	-45°	0	1082	1082	1082	1082	5	1066	1079	1085	1079	15	1021	1038	1043	1038	25	928	938	932	938	35	793	787	759	787	45	631	606	563	606	55	459	427	390	427	65	293	272	248	272	75	144	140	121	140	85	32	31	29	31	<p style="text-align: center;"><b>Light Distribution</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Degrees</th> <th>Lumens</th> <th>% Linaire</th> </tr> </thead> <tbody> <tr><td>0-30</td><td>824</td><td>31.5</td></tr> <tr><td>0-40</td><td>1313</td><td>50.2</td></tr> <tr><td>0-60</td><td>2159</td><td>82.6</td></tr> <tr><td>0-90</td><td>2613</td><td>100.0</td></tr> </tbody> </table>	Degrees	Lumens	% Linaire	0-30	824	31.5	0-40	1313	50.2	0-60	2159	82.6	0-90	2613	100.0	<p style="text-align: center;"><b>Average Luminance</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Angle</th> <th>End</th> <th>45'</th> <th>Cross</th> </tr> </thead> <tbody> <tr><td>45</td><td>3054</td><td>2930</td><td>2725</td></tr> <tr><td>55</td><td>2738</td><td>2545</td><td>2327</td></tr> <tr><td>65</td><td>2375</td><td>2203</td><td>2006</td></tr> <tr><td>75</td><td>1904</td><td>1851</td><td>1601</td></tr> <tr><td>85</td><td>1245</td><td>1229</td><td>1139</td></tr> </tbody> </table>	Angle	End	45'	Cross	45	3054	2930	2725	55	2738	2545	2327	65	2375	2203	2006	75	1904	1851	1601	85	1245	1229	1139																																								
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<p style="text-align: center;"><b>Coefficients of Utilization</b></p> <p style="text-align: center;"><b>EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Ceiling (pcc)</th> <th colspan="3">80%</th> <th colspan="3">70%</th> <th colspan="3">50%</th> </tr> <tr> <th>70</th> <th>50</th> <th>30</th> <th>70</th> <th>50</th> <th>30</th> <th>50</th> <th>30</th> </tr> </thead> <tbody> <tr> <td>RCR</td> <td colspan="9" style="text-align: center;">Zonal cavity method - Effective floor reflectance = 20%</td> </tr> <tr> <td>Room Cavity Ratio</td> <td>0</td><td>118</td><td>118</td><td>118</td><td>115</td><td>115</td><td>115</td><td>111</td><td>111</td> </tr> <tr><td>1</td><td>109</td><td>105</td><td>101</td><td>107</td><td>103</td><td>98</td><td>97</td><td>94</td><td>94</td></tr> <tr><td>2</td><td>100</td><td>92</td><td>85</td><td>96</td><td>90</td><td>83</td><td>86</td><td>81</td><td>81</td></tr> <tr><td>3</td><td>92</td><td>81</td><td>73</td><td>89</td><td>80</td><td>72</td><td>77</td><td>70</td><td>70</td></tr> <tr><td>4</td><td>83</td><td>72</td><td>64</td><td>81</td><td>70</td><td>64</td><td>68</td><td>61</td><td>61</td></tr> <tr><td>5</td><td>78</td><td>65</td><td>56</td><td>76</td><td>64</td><td>56</td><td>61</td><td>55</td><td>55</td></tr> <tr><td>6</td><td>71</td><td>58</td><td>51</td><td>69</td><td>57</td><td>50</td><td>56</td><td>48</td><td>48</td></tr> <tr><td>7</td><td>67</td><td>54</td><td>45</td><td>65</td><td>53</td><td>45</td><td>52</td><td>44</td><td>44</td></tr> <tr><td>8</td><td>61</td><td>48</td><td>40</td><td>60</td><td>48</td><td>40</td><td>46</td><td>40</td><td>40</td></tr> <tr><td>9</td><td>57</td><td>45</td><td>36</td><td>56</td><td>45</td><td>36</td><td>44</td><td>36</td><td>36</td></tr> <tr><td>10</td><td>55</td><td>41</td><td>34</td><td>54</td><td>40</td><td>34</td><td>40</td><td>34</td><td>34</td></tr> </tbody> </table>				Ceiling (pcc)	80%			70%			50%			70	50	30	70	50	30	50	30	RCR	Zonal cavity method - Effective floor reflectance = 20%									Room Cavity Ratio	0	118	118	118	115	115	115	111	111	1	109	105	101	107	103	98	97	94	94	2	100	92	85	96	90	83	86	81	81	3	92	81	73	89	80	72	77	70	70	4	83	72	64	81	70	64	68	61	61	5	78	65	56	76	64	56	61	55	55	6	71	58	51	69	57	50	56	48	48	7	67	54	45	65	53	45	52	44	44	8	61	48	40	60	48	40	46	40	40	9	57	45	36	56	45	36	44	36	36	10	55	41	34	54	40	34	40	34	34
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# 1ST SofTrace LED recessed 1x4

Up to 4000 lumens

## 1x4 SofTrace LED, 2900 nominal delivered lumens, diffuse

LER – 115

<b>Catalog No.</b> 1STG29L840-4-D-UNV-DIM <b>Test No.</b> 35065 <b>S/MH</b> 1.2 <b>Lamp Type</b> LED <b>Lumens/Lamp</b> 3042 <b>Input Watts</b> 26.3  Comparative yearly lighting energy cost per 1000 lumens – <b>\$2.07</b> based on 3000 hrs. and \$.08 pwr KWH.  The photometric results were obtained in the Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.  Photometric values based on test performed in compliance with LM-79.	<b>Candela distribution</b>				<b>Light Distribution</b>			<b>Average Luminance</b>				
	<b>Vertical Angle</b>	<b>Horizontal Angle</b>			<b>Degrees</b>	<b>Lumens</b>	<b>% Luminaire</b>	<b>Angle</b>	<b>End</b>	<b>45°</b>	<b>Cross</b>	
		<b>0°</b>	<b>45°</b>	<b>90°</b>	<b>-45°</b>	<b>0-30</b>	960	31.5	<b>45</b>	3557	3407	3179
	<b>0</b>	1260	1260	1260	1260	<b>0-40</b>	1529	50.2	<b>55</b>	3193	2955	2717
	<b>5</b>	1241	1256	1262	1256	<b>0-60</b>	2515	82.6	<b>65</b>	2766	2567	2338
	<b>15</b>	1188	1209	1214	1209	<b>0-90</b>	3044	100.0	<b>75</b>	2222	2152	1867
	<b>25</b>	1079	1093	1085	1093				<b>85</b>	1449	1421	1327
	<b>35</b>	923	917	883	917							
	<b>45</b>	735	704	657	704							
	<b>55</b>	535	495	455	495							
<b>65</b>	342	317	289	317								
<b>75</b>	168	163	141	163								
<b>85</b>	37	36	34	36								

## 1x4 SofTrace LED, 3500 nominal delivered lumens, diffuse

LER – 114

<b>Catalog No.</b> 1STG35L840-4-D-UNV-DIM <b>Test No.</b> 35066 <b>S/MH</b> 1.2 <b>Lamp Type</b> LED <b>Lumens/Lamp</b> 3557 <b>Input Watts</b> 31.1  Comparative yearly lighting energy cost per 1000 lumens – <b>\$2.09</b> based on 3000 hrs. and \$.08 pwr KWH.  The photometric results were obtained in the Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.  Photometric values based on test performed in compliance with LM-79.	<b>Candela distribution</b>				<b>Light Distribution</b>			<b>Average Luminance</b>				
	<b>Vertical Angle</b>	<b>Horizontal Angle</b>			<b>Degrees</b>	<b>Lumens</b>	<b>% Luminaire</b>	<b>Angle</b>	<b>End</b>	<b>45°</b>	<b>Cross</b>	
		<b>0°</b>	<b>45°</b>	<b>90°</b>	<b>-45°</b>	<b>0-30</b>	1122	31.5	<b>45</b>	4152	3991	3711
	<b>0</b>	1474	1474	1474	1474	<b>0-40</b>	1788	50.2	<b>55</b>	3731	3470	3168
	<b>5</b>	1451	1648	1477	1468	<b>0-60</b>	2940	82.6	<b>65</b>	3223	2997	2727
	<b>15</b>	1390	1414	1420	1414	<b>0-90</b>	3558	100.0	<b>75</b>	2581	2515	2171
	<b>25</b>	1263	1279	1269	1279				<b>85</b>	1683	1671	1526
	<b>35</b>	1078	1074	1033	1074							
	<b>45</b>	859	826	768	826							
	<b>55</b>	626	582	532	582							
<b>65</b>	399	371	337	371								
<b>75</b>	195	190	190	190								
<b>85</b>	43	43	43	43								

# 1ST SofTrace LED recessed 1x4

Up to 4000 lumens

## 1x4 SofTrace LED, 4000 nominal delivered lumens, diffuse

<b>Catalog No.</b>	1STG40L840-4-D-UNV-DIM
<b>Test No.</b>	35068
<b>S/MH</b>	1.2
<b>Lamp Type</b>	LED
<b>Lumens/Lamp</b>	3999
<b>Input Watts</b>	35.3

Comparative yearly lighting energy cost per 1000 lumens – **\$2.12** based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

Photometric values based on test performed in compliance with LM-79.

### Candela distribution

Vertical Angle	Horizontal Angle			
	0°	45°	90°	-45°
0	1656	1656	1656	1656
5	1631	1650	1659	1650
15	1561	1589	1597	1589
25	1419	1437	1427	1437
35	1212	1207	1161	1207
45	966	929	863	929
55	703	656	598	656
65	449	417	379	417
75	221	215	185	215
85	48	48	44	48

## LER – 113

### Light Distribution

Degrees	Lumens	% Luminaire
0-30	1261	31.5
0-40	2009	50.2
0-60	3305	82.6
0-90	4000	100.0

### Average Luminance

Angle	End	45°	Cross
45	4673	4494	4177
55	4193	3911	3568
65	3632	3372	3070
75	2915	2848	2447
85	1896	1885	1716

### Coefficients of Utilization

#### EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)

Ceiling (pcc)	80%			70%			50%	
Wall (pw)	70	50	30	70	50	30	50	30
RCR	Zonal cavity method - Effective floor reflectance = 20%							
Room Cavity Ratio	118	118	118	115	115	115	111	111
1	109	105	101	107	103	98	97	94
2	100	92	85	96	90	83	86	81
3	92	81	73	89	80	72	77	70
4	83	72	64	81	70	64	68	61
5	78	65	56	76	64	56	61	55
6	71	58	51	69	57	50	56	48
7	67	54	45	65	53	45	52	44
8	61	48	40	60	48	40	46	40
9	57	45	36	56	45	36	44	36
10	55	41	34	54	40	34	40	34

